
**In The
Supreme Court of the United States**

STATE OF TEXAS,

Plaintiff,

v.

STATE OF NEW MEXICO
and STATE OF COLORADO,

Defendants.

On the Third Interim Report
of the Special Master

**JOINT REPLY TO EXCEPTION OF THE
UNITED STATES BY THE STATES OF TEXAS,
NEW MEXICO, AND COLORADO**

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QUESTIONS PRESENTED

In this action to enforce the Rio Grande Compact, all three Compacting States have reached a settlement contained in a proposed Consent Decree, which the Special Master has recommended the Court approve. The Exception of the United States presents the following questions for resolution by the Court:

1. Does the proposed Consent Decree resolve an ambiguity regarding the apportionments to the States below Elephant Butte Reservoir in a manner that is consistent with the Rio Grande Compact?
2. Does the United States have a valid claim to an apportionment independent of the State of Texas?
3. Should the Court allow the United States to expand the scope of this original action to pursue claims that could be brought in lower courts?
4. Does the proposed Consent Decree impose new obligations on the United States beyond its preexisting duty to conduct Project operations consistent with the Compact?

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JURISDICTION

The Court has jurisdiction under Article III, Section 2, Clause 2 of the Constitution and 28 U.S.C. § 1251(a). Contrary to the United States' jurisdictional statement, it has never properly invoked the provisions of 28 U.S.C. § 1251(b)(2).

COMPACT AND STATUTORY PROVISIONS

The Rio Grande Compact (Compact), Act of May 31, 1939, ch. 155, 53 Stat. 785, and other relevant authorities or evidentiary materials referenced in this brief are reproduced in the appendix to the brief supporting the United States' Exception, in the attached Appendix, or on the Special Master's electronic docket.¹

STATEMENT

I. BACKGROUND

A. The Rio Grande

The Rio Grande rises in southern Colorado and flows southward approximately 400 miles through New Mexico and into Texas near the City of El Paso. Below El Paso, the river defines the international boundary between the United States and Mexico.

¹ The Special Master's docket can be accessed at ca8.uscourts.gov/texas-new-mexico-and-colorado-no-141-original. Citations to materials on the docket are referred to by their docket number (Doc.).

This original action involves the reach of the river from Elephant Butte Reservoir (Reservoir), located in New Mexico approximately 100 miles north of the Texas-New Mexico state-line, to Fort Quitman, Texas. See Third Interim Report (Third Report), Add. 46, Doc. 776.

B. The Rio Grande Project

In the early 1900s, the Reclamation Service (precursor to the Bureau of Reclamation) (Reclamation) recommended that Congress authorize a storage reservoir near Elephant Butte, New Mexico. See *Second Annual Report of the Reclamation Service*, H.R. Doc. No. 58-44, at 375-80 (1904). Reclamation appropriated surface water for the Rio Grande Project (Project) under New Mexico territorial law, consistent with Section 8 of the Reclamation Act. U.S. Br. 3. By 1919, construction of the Reservoir and the major diversion works of the Project were complete. *Project History Rio Grande Project Year 1919*, NM-EX-312 at NM-20100, NM-20127-128, Doc. 418-3.

The Project was designed to deliver 60,000 acre-feet of water to Mexico pursuant to a 1906 Treaty, and to irrigate approximately 88,000 acres in New Mexico and 67,000 acres in Texas. First Interim Report (First Report) 112-15, Doc. 54; Convention Between the United States and Mexico Providing for the Equitable Distribution of the Waters of the Rio Grande for Irrigation Purposes, May 21, 1906, 34 Stat. 2953. By statute, New Mexico and Texas authorized irrigators in the Project area to organize as irrigation districts—Elephant Butte Irrigation

District (EBID) in New Mexico, and El Paso County Water Improvement District No. 1 (EPCWID) in Texas (collectively, the “Districts”)—to contract with Reclamation for water in exchange for taking on repayment obligations for Project construction costs. Elephant Butte Water Users’ Association, Articles of Incorporation, NM-EX-302, Doc. 418-2; El Paso Valley Water Users’ Association, Articles of Incorporation, NM-EX-304, Doc. 418-3. Since the beginning of the Project, the annual water supply has been consistently divided according to the proportional acreage in each State, 57% to New Mexico and 43% to Texas (hereinafter referenced as “57:43”). Barroll Decl. ¶ 25, Doc. 720-6. Pursuant to a 1938 Contract between the Districts and the United States, repayment costs and water shortages were also shared 57:43. *See* 1938 Downstream Contract (Feb. 16, 1938) (reproduced as App. C to U.S. Br.) (1938 Contract).

C. The Rio Grande Compact

Following years of negotiations and study, Colorado, New Mexico, and Texas executed the Compact in 1938 to apportion the waters of the Rio Grande Basin. Compact, Preamble (reproduced as App. A to the U.S. Br.). To accomplish that apportionment, the Compact expressly defines two delivery obligations. Colorado must deliver water to the New Mexico state-line, indexed to hydrologic conditions. *Id.* art. III. Colorado’s equitable apportionment constitutes the water above the Colorado-New Mexico state-line minus Colorado’s Article III delivery requirement. Then, New Mexico must deliver water to the Reservoir, also indexed to

hydrologic conditions. *Id.* art. IV. Part of New Mexico's apportionment is the amount of water above the Reservoir less its Article IV delivery obligation.

However, the Compact does not end at the Reservoir; rather, it relies on the Project to deliver the apportionment as between New Mexico and Texas below the Reservoir. To that end, the Compact imposes limitations on Project operations. Once New Mexico meets its Article IV obligation, the water delivered to the Reservoir becomes "Usable Water" in "Project Storage" which is available for release in accordance with "irrigation demands" and deliveries to Mexico. Compact, arts. I(l) and I(k). The Compact contemplates a normal annual release of "Usable Water" of 790,000 acre-feet per year to satisfy such demands. *Id.* art. VIII. It also requires a river gage below Caballo Reservoir to track Project releases. *Id.* art. II.

Once New Mexico completes its Article IV delivery obligation to the Reservoir, the Compact is ambiguous with respect to the division of water between southern New Mexico and Texas. This ambiguity was created, in part, by the Compact's reliance on the contemporaneously negotiated Downstream Contracts, including the 1938 Contract. Those contracts froze the authorized irrigated acreage supplied by the Project downstream of the Reservoir at 57:43. U.S. Br., App. C; *see also* F. Clayton, Texas Compact Commissioner, to S. Smith, Tr. Ex. NM-2119, App. 51-53. Unlike the Article III and IV obligations, which define volumes of water, the Compact provides no express means to

calculate the total volume of water apportioned to New Mexico and Texas in any given year.

D. Post-Compact Project Operations

After the States entered into the Compact, Reclamation and the Districts became aware that development of groundwater resources would add no new water supply to the Project. *See, e.g.*, Conover, Clyde S., “Preliminary Memorandum on Groundwater Supplies for Elephant Butte Irrigation District” Tr. Ex. JT-0444, App. 14-17. Nonetheless, farmers and municipalities in both New Mexico and Texas reacted to serious drought in the 1940s and 1950s by drilling hundreds of wells and relying on groundwater. *See* Summary Judgment Order (SJO) 25-39, Doc. 503. Reclamation actively promoted well development during the drought, encouraging farmers in both States to use groundwater “to the greatest extent possible.” *See, e.g.*, W.F. Resch, Project Manager, “Rio Grande Project-New Mexico-Texas: Water Announcement,” Tr. Ex. JT-0227, App. 2-3. Groundwater remains an important source of irrigation water in both States today.

Before 1980, Reclamation delivered Usable Water directly to individual farms in both States, roughly in accord with the 57:43 apportionment. Third Report 19. By the early 1980s, the Districts satisfied their repayment obligations and the United States switched to delivering water to the main canals for each District. *Id.* To accommodate this change, the United States developed a method for dividing the Usable Water in Project Storage between the Districts in each State using a regression analysis of

data from 1951 to 1978 (D2 Period). Third Report 20. The resulting relationship between Project releases from storage and total Project diversions, termed the “D2 Curve,” has been used by the United States as a baseline to allocate water since the 1980s. U.S. Resp. to New Mexico’s Second Set of Requests for Admission, RFA 84, Tr. Ex. NM-1061, App. 40; Third Report 19. The D2 Curve does not represent Project efficiency as it would have existed in 1938. Rather, the United States’ methodology reflects the impact of groundwater pumping that occurred during the D2 Period.

Following the onset of another drought in the early 2000s, the United States and Districts negotiated an operating agreement for the Project. Operating Agreement for the Rio Grande Project, Tr. Ex. NM-2373, App. 54 (2008 Operating Agreement). The 2008 Operating Agreement enshrined the D2 Curve (and therefore the D2 Baseline) as the method to calculate the allocations to the Texas District. It also instituted a number of accounting changes, including balance transfers, individual carryover accounts, and credits to the Texas District. See Third Report 21-22. Neither New Mexico nor Texas is a signatory to the 2008 Operating Agreement. 2008 Operating Agreement § 6.12, App. 54, 72-73.

New Mexico filed suit in federal district court challenging the 2008 Operating Agreement. *New Mexico v. United States, et al.*, No. 11-CV-00691 (D.N.M. filed Aug. 8, 2011); see also Third Report 22-23. That litigation was stayed upon the filing of this action. Third Report 100.

II. THE PRESENT CONTROVERSY

A. The Texas Complaint

In 2014, this Court granted Texas leave to file its Complaint against New Mexico. *Texas v. New Mexico*, 571 U.S. 1173 (2014) (mem.). Texas alleged New Mexico violated its Compact obligations by permitting groundwater pumping that depletes Rio Grande water intended for use in Texas. Tex. Compl. ¶ 4, Doc. 63. Texas’s central claim was that New Mexico prevented the Texas apportionment from being delivered “to the New Mexico-Texas state line.” *Id.* ¶ 26.

B. The United States’ Complaint in Intervention

The United States requested leave to intervene “seeking substantially the same relief as Texas.” *Texas v. New Mexico*, 583 U.S. 407, 415 (2018) (2018 Decision). The United States alleged that groundwater diversions in New Mexico reduce Project efficiency. Complaint in Intervention ¶¶ 12-14, Doc. 65 (U.S. Compl.). Specifically, the United States alleged that groundwater pumping in New Mexico “*could* reduce Project efficiency to a point where 43% of the available water could not be delivered to EPCWID” *Id.* ¶ 15 (emphasis added). Unlike Texas, the United States did not allege it is apportioned water under the Compact and did not plead a 1938 baseline. *Compare* Tex. Compl. ¶ 10 *with* U.S. Compl. ¶¶ 14-15.

C. The Court’s 2018 Decision

In 2018, this Court permitted the United States to pursue claims arising under the Compact. In doing so, the Court observed it has used its “unique authority” to “mold” original actions to permit the federal government “to participate in compact suits to defend ‘distinctively federal interests.’” *Texas v. New Mexico*, 583 U.S. at 412-13 (quoting *Maryland v. Louisiana*, 451 U.S. 725, 745 n.21 (1981)).

Several considerations informed the Court’s decision: *first*, the Project is “inextricably intertwined” with the Compact because the United States “assumed a legal responsibility” to deliver certain Compact apportionments; *second*, New Mexico conceded the United States’ integral role in Compact operations; *third*, a Compact violation could affect the United States’ treaty obligations to Mexico; and *fourth*, the United States’ “parallel” claims sought (without objection from Texas) “substantially the same relief as Texas.” *Texas v. New Mexico*, 583 U.S. at 413-15. The Court cautioned, however, that its 2018 Decision did not address whether the United States could maintain its own Compact claims if there were no “parallel” State claims or “whether a different result would obtain in the absence of the considerations” above. *Id.* at 415.

D. Litigation Before the Special Master

1. New Mexico’s Counterclaims

In 2018, New Mexico filed counterclaims alleging, *inter alia*, that the 2008 Operating Agreement

unfairly charges New Mexico for actions occurring in Texas upsetting the 57:43 apportionment. N.M. Counterclaims, Doc. 93. New Mexico also filed counterclaims against the United States. *See id.* ¶¶ 19-23, 25-32. In 2020, the Special Master dismissed the counterclaims against the United States as “inconsistent with the scope of the pending action,” but permitted New Mexico to proceed on its counterclaims against Texas. Mot. to Dismiss Order 41, Doc. 338. In reaching this conclusion, the Special Master observed that “[t]o the extent current [Project] operations are inconsistent with the Court’s ultimate decree on apportionment, any operating agreement will have to be brought into conformity with the decree.” *Id.* at 29.

2. Summary Judgment Order

In 2020, Texas, the United States, and New Mexico sought summary judgment. As relevant to the Exception, the Special Master confirmed that the Compact apportions the water below the Reservoir according to the 57:43 apportionment. SJO 51. The Special Master characterized the Compact apportionment as “programmatically” because it relies on the Project to deliver apportioned water to the States. *Id.* at 3. The Special Master determined, however, that the “protected baseline condition” under which the apportionment must be made was ambiguous and would require trial. *Id.* at 5-6, 24-25, 45, 50; *see also* Third Report 76-77.

3. Protected Baseline Condition

The amount of water that arrives at a given point on the river—e.g., the state-line—depends on many factors, including Reservoir releases and the hydrologic conditions above the measurement point. *See, generally*, Third Report 18-19 (discussing effects of groundwater pumping). The “Baseline” or “Baseline Condition” refers to the set of assumed hydrologic conditions that an index or other methodology uses to determine the expected delivery at a specified measurement point for any given Reservoir release. *See, e.g.*, Act of June 9, 1949, ch. 184, 63 Stat. 159, 160 (1949) (consenting to Pecos River Compact). In the first phase of trial, Texas advocated for a 1938 Baseline, referring to the hydrologic conditions that would exist if depletions were frozen in 1938. *See, e.g.*, 10/4/2022 Trial Tr. Vol. I, 18:1-20:19, Doc. 701 (Texas opening statement). New Mexico, by contrast, advocated for a Baseline based on the hydrologic conditions existing during the D2 Period. *See id.*, 55:24-59:14 (New Mexico opening statement).

4. Renewed Settlement Efforts

After the completion of the first phase of trial, the parties engaged retired Magistrate Judge Arthur Boylan and entered extensive settlement discussions between December 2021 and October 2022. The result was a Consent Decree, which the States proposed to the Special Master in November 2022 over the United States’ objection. Consent Decree Supporting the Rio Grande Compact II.B.F, Doc. 720-1 (Consent Decree).

III. THE CONSENT DECREE

The centerpiece of the Consent Decree, which specifies procedures for measuring the apportionment of Rio Grande water between Texas and New Mexico below the Reservoir is the Effective El Paso Index (Index). Third Report 38; Consent Decree II.B-F. The Consent Decree adopts D2 as the Baseline Condition and establishes an annual, volumetric target based on the D2 Curve to measure and enforce the Compact apportionment. This Index approach is similar to the Compact's structure upstream of the Reservoir because it measures deliveries in the same manner as Articles III and IV.

The Index contains two basic parts: *first*, the "Index Obligation" establishes New Mexico's annual volumetric delivery target using the D2 Curve. It is calculated annually based on a two-year regression analysis comparing historical releases at Caballo Dam with stream flows at the El Paso Gage during the D2 Period. Barroll 2d Decl. ¶ 11, Doc. 755-E. *Second*, the "Index Delivery" measures how much water is actually delivered to Texas based largely on flows at the El Paso Gage,² a state-line gage. Consent Decree II.B. The Index Delivery is also calculated annually, based on annual stream flow measured at the El Paso Gage, adjusted for deliveries to Mexico, Texas water use above the El Paso Gage, and other factors. The Index

² The gage is identified as number 08-3640.00 – Rio Grande at El Paso, Texas.

Obligation is Texas's apportionment. New Mexico's apportionment is the remaining water after it satisfies the Index Obligation.

New Mexico's compliance with the Compact is measured by comparing the Index Obligation with the Index Delivery. The difference between the Index Obligation and the Index Delivery is the "Annual Index Departure." The Consent Decree allows for departures within specified limits. If the "Negative Departure" limit is reached, New Mexico must initiate water management actions. If water management actions are unsuccessful, New Mexico will transfer apportioned water to Texas. Consent Decree II.D. "Accrued Index Departures" can also be positive if New Mexico over-delivers water to Texas. Consent Decree II.D.3. If the "Positive Departure" limit is reached, Texas is required to transfer apportioned water to New Mexico. Together, the Negative and Positive Departure provisions provide guard rails to ensure that New Mexico and Texas receive their equitable apportionments.

Based on numerous technical evaluations, the Index methodology (including Negative and Positive Departures) resolves the Compact dispute and ensures that the water below the Reservoir is equitably apportioned 57:43. The Rio Grande Compact Commission approved the Consent Decree, Skov Decl., Ex. A, Doc. 720-2, and the States are committed to satisfying their various obligations under the Index methodology. *See, e.g.*, Hamman Decl. ¶¶ 10, 12-16, Doc. 720-5. The United States nonetheless raised objections echoed in the Exception now before the Court.

IV. THE THIRD INTERIM REPORT

Following a hearing, the Special Master issued the Third Report, recommending that the Court grant the States' Joint Motion and enter the Consent Decree. Third Report 1-17. The Special Master addressed each of the United States' objections to the Consent Decree, finding the Consent Decree consistent with the Compact. He reasoned that Texas must have the ability to monitor and enforce its sovereign right to its apportionment and the Index is an acceptable means to measure whether the water actually reaches Texas. *Id.* at 72. The Special Master further noted that it “permissibly interprets ambiguities in the Compact by clarifying” the apportionments. *Id.* at 1. He concluded that no claims would be lost by the United States because its claims can be litigated elsewhere and “nothing in the [2018 Decision] suggested the Court believed it was opening the field of play to . . . any . . . issue that could properly be addressed in a different forum.” *Id.* at 95. Finally, the Special Master concluded that the Consent Decree would impose no new duties on the United States, observing that the Decree instead “requires the United States to continue meeting its Compact-based duty to deliver Texas’s apportionment through the Project—a duty long recognized to require some deference to state-imposed conditions.” *Id.* at 10 (citing *California v. United States*, 438 U.S. 645, 675 (1978)).

SUMMARY OF ARGUMENT

The primary issue in this case is the Baseline for the Compact apportionment between New Mexico

and Texas below the Reservoir. The Consent Decree resolves that issue. With its Exception, the United States seeks to block the settlement and send this case back to litigation. The Exception should be overruled for three reasons.

First, the Consent Decree resolves an ambiguity in a manner consistent with the Compact by creating an Index to measure delivery of Texas's apportionment. The United States fails to identify any inconsistency between the Consent Decree and the Compact because there is none. Ensuring that Texas actually receives its apportionment, as the Consent Decree does, is fundamental to the prayers for relief in both the Texas Complaint and the United States Complaint in Intervention.

Second, the Consent Decree would not preclude the United States—which has no claim to the water itself—from litigating any valid claims. The Court allowed the United States to intervene in this original action with the understanding that it sought “substantially the same relief” as Texas and because the United States is a “sort of agent of the Compact, charged with assuring that the Compact’s equitable apportionment is, in fact made.” *Texas v. New Mexico*, 583 U.S. at 413-15 (internal punctuation altered). With the resolution of Texas’s claims, the anchor to which the United States’ relief was tied is removed. Lacking an apportionment, the United States is entitled to no further relief in this original action. Any remaining United States claims involve a dispute with New Mexico over intrastate issues. Those remaining claims should be addressed in other available fora.

Third, the Consent Decree imposes no new obligations on the United States. The United States has a preexisting duty to operate the Project to make certain that the apportionments to Texas and New Mexico are, in fact, made. The Consent Decree merely clarifies the method for measuring the Compact apportionment. The Consent Decree will become part of the constellation of laws the United States must follow when operating the Project.

Last, this Court has a stated preference for States to resolve their disputes by mutual agreement. Through its Exception, the United States seeks to deny the parties to the Compact the ability to settle their dispute and, in so doing, oversteps its role in an original action. The Court should overrule the Exception and enter the Consent Decree.

ARGUMENT

I. THE CONSENT DECREE IS CONSISTENT WITH THE COMPACT

A consent decree must “further the objectives of the law upon which the complaint was based.” *Local No. 93, Int’l Asso. of Firefighters, etc. v. Cleveland*, 478 U.S. 501, 525 (1986) (*Firefighters*). The United States contends that the Consent Decree fails this threshold inquiry because it is “contrary to the Compact.” U.S. Br. 15. To the contrary, “the Consent Decree is consistent with the Compact in the broadest sense because it interprets a core ambiguity in the Compact by articulating the downstream apportionment.” Third Report 67.

A. States May Resolve Ambiguities in an Interstate Compact

The Court has “often expressed [a] preference that, where possible, States settle their controversies by mutual accommodation and agreement.” *Arizona v. California*, 373 U.S. 546, 564 (1963) (internal quotation marks and footnote omitted); *see also Texas v. New Mexico*, 462 U.S. 554, 575 (1983) (interstate water disputes are “more likely to be wisely solved by co-operative study and . . . mutual concession”) (internal quotation marks omitted); *Vermont v. New York*, 417 U.S. 270, 278 (1974) (“Once a consensus is reached there is no reason, absent a conflict with an interstate compact, why such a settlement would not be binding.”). To further that end, this Court has honored States’ collective understanding of ambiguous interstate agreements or decrees.

For example, in *New Hampshire v. Maine*, this Court considered a boundary dispute in which the state-line had been fixed based on a 1740 decree of King George II of England. 426 U.S. 363, 367 (1976). The dispute turned on the meaning of ambiguous phrases such as the “Middle of the River” within the decree. *Id.* Prior to trial, the attorneys general “agreed upon a settlement and jointly filed a Motion for Entry of Judgment by Consent of Plaintiff and Defendant, together with a proposed consent decree, based on a stipulated record.” *Id.* at 365-66 (internal quotation marks omitted). The special master recommended that the Court decline the proposed decree, and both States filed exceptions. *Id.* at 364. The Court rejected the special master’s

recommendation and entered the decree. It reasoned that “there is nothing to suggest that the location of the 1740 boundary agreed upon by the States is wholly contrary to relevant evidence, and we therefore see no reason not to give it effect, even if we would reach a different conclusion upon the same evidence.” *Id.* at 369. The Court further explained that its precedent “does not proscribe the acceptance of settlements between the States that merely have the effect, as here, of reasonably investing imprecise terms with definitions.” *Id.* at 369 (citing *Vermont v. New York*, 417 U.S. at 270).

B. The Consent Decree Resolves the Ambiguity Concerning the Apportionment Below the Reservoir

The Special Master found that the Compact does not “address expressly the full details of the Project’s Baseline operating conditions” below the Reservoir. SJO 24. The Consent Decree resolves that ambiguity.

1. The Compact Does Not Delineate the Baseline Condition for the Division of Water Below the Reservoir

The Compact and the Downstream Contracts generally require a division of available supply between New Mexico and Texas according to the 57:43 ratio. SJO 51. What the Compact and Downstream Contracts did not unambiguously define is the Baseline, which is necessary to determine the specific amount of water that must be delivered to Texas at the state-line.

At summary judgment, the Special Master concluded that the “Compact relies on the Rio Grande Project for water delivery and is *programmatically* in its apportionment of water as between Texas and New Mexico,” requiring a “division” of Project supply 57% to New Mexico and 43% to Texas. SJO 3 (emphasis in original). While the protected Baseline for the apportionment includes some “return flows,” it did not require “agricultural practices, irrigation practices, and other forms of development to remain static” at a 1938 level. *Id.* at 3, 5-6, 13, 45-46, 50. Instead, the Compact “is ambiguous as to the detailed scope of the apportionments,” *id.* at 47, and depends on an “as-yet undetermined baseline operating condition.” Third Report 34.

2. The Consent Decree Clarifies the Existing Apportionment in a Manner Consistent with the Compact

Through the Consent Decree, the Compacting States have now agreed to a Baseline that resolves this ambiguity in a manner consistent with the Compact. Specifically, the Consent Decree establishes an Index methodology that calculates Texas’s 43% share of Project supply in a manner that can be measured at a specific point—the El Paso Gage—to ensure each State receives its apportionment. *See* Sullivan Decl. ¶ 28, Doc. 720-7; Hutchison Decl. ¶ 111, Doc. 720-4; Barroll Decl. ¶ 25, Doc. 720-6.

The Index Obligation is based on Reclamation’s analysis of historic release and delivery data from

the D2 Period. *See* Sullivan Decl. ¶¶ 14-15, Doc. 720-7; Hutchison Decl. ¶¶ 24-25, Doc. 720-4. Reclamation has allocated water to the Districts based on that D2 Baseline since approximately 1980. *See, supra*, Statement I.D; Barroll Decl. ¶ 23, Doc. 720-6; Tr. Ex. JT-0443, App. 8.

The Decree Index would continue that practice. Consistent with the 2018 Decision, technical analysis confirms that future annual deliveries under the Index would continue to average 57:43. *See* Sullivan Decl. ¶¶ 24-28, Doc. 720-7. In other words, the Index codifies the programmatic division of water in a manner consistent with historical Project operations. Barroll 2d Decl. ¶ 27, Doc. 755-E. Moreover, it does so without directly affecting the day-to-day operations of the Project. *Id.* ¶¶ 3-14; Hutchison 2d Decl. ¶¶ 20-35, Doc. 755-A.

As in *New Hampshire v. Maine*, the States' agreement that the Compact apportionment is satisfied with the D2 Baseline is a reasonable interpretation that is not "wholly contrary to relevant evidence." 426 U.S. at 369. Because the Consent Decree "merely ha[s] the effect . . . of reasonably investing imprecise terms with definitions that give effect to" the Compact, the Court should honor the settlement agreement between the States "even if [the Court] would reach a different conclusion upon the same evidence." *Id.*

C. The United States Fails to Identify an Inconsistency Between the Consent Decree and the Compact

The United States argues the Consent Decree would be contrary to the Compact in three ways: it (1) adds a state-line delivery requirement; (2) requires the United States to honor defined apportionments to the States; and (3) uses a D2 Baseline. U.S. Br. 43-47. “None of these areas of alleged inconsistency with the Compact merit rejection of the Consent Decree.” Third Report 72.

1. The State-Line Index Obligation Is Consistent with the Programmatic Apportionment

The United States first argues that the Compact forbids measuring deliveries to Texas at the state-line because the apportionment is programmatic. U.S. Br. 43-45. This position is untenable given the plain language of the Compact.

A compact must be interpreted in accordance with its stated purpose. *See Texas v. New Mexico*, 462 U.S. at 566-72. Here, that purpose is to “effect[] an equitable apportionment” of “the waters of the Rio Grande” among the signatory States. Compact, Preamble.

The cases addressing apportionment speak in terms of “the extent of the existing equitable rights,” *Hinderlider v. La Plata River & Cherry Creek Ditch Co.*, 304 U.S. 92, 104 (1938), the “division of water,” *Kansas v. Nebraska*, 574 U.S. 445, 455 (2015), the

“right of each [State] to receive benefit,” *Kansas v. Colorado*, 206 U.S. 46, 117 (1907), the “just and equitable” allocation, *Nebraska v. Wyoming*, 325 U.S. 589, 618 (1945), or the “equitable share of the flow,” *Colorado v. Kansas*, 320 U.S. 383, 391-92 (1943). However phrased, the concept is the same: an apportionment must define the rights of the parties and allow each State to understand how much water it is entitled to use. *See Texas v. New Mexico*, 482 U.S. 124, 129 (1987) (explaining the need for “a workable methodology for translating New Mexico’s obligation into quantities of water”).

By arguing that a state-line measurement is impermissible, the United States effectively claims that there is no defined apportionment at all. *See* U.S. Br. 43-44. This argument is unworkable because it would provide the States with no means to determine whether they are receiving their full share. It would also subject the division of water among the States to the unilateral actions of the United States and would defeat the goal of a fixed “apportionment” to “remove all causes of present and future controversy.” Compact, Preamble.

By adopting a new gage to measure Compact compliance, the Consent Decree utilizes a tool sanctioned by the plain language of the Compact. Articles II and XII permit the Compacting States to gather data “having a bearing upon the administration of the Compact” and contemplate the use of new gages “as may be necessary for the securing of records required for carrying out of the Compact.” Compact, arts. II, XII. Here, the Compact Commission “has already approved the Consent

Decree and use of the El Paso gauge as the means to measure the aggregate deliveries to Texans.” Third Report 70; *see also* Skov Decl., Ex. A, Doc. 720-2.

In contrast, the United States cannot identify any express provision of the Compact that forbids a state-line measurement. Instead, it relies on a supposition that the States deliberately “declined to make an index” at the state-line when the Compact was signed. U.S. Br. 44. That the States declined to make an Index in 1938 is hardly enough to satisfy the United States’ burden to show that the Consent Decree “affirmatively violate[s] the Compact.” *Kansas v. Nebraska*, 574 U.S. at 472-73. Worse, the inference that the States intended to preclude any future measurement at the state-line is contrary to the evidence. A “state line delivery” was not feasible in 1938 because of complexities related to water infrastructure crisscrossing the Texas-New Mexico border. Tr. Ex. NM-EX 2119, App. 51-52 (“[T]he obstacles in the way of providing for any fixed flow at the Texas line were considered insuperable.”). But,

The initial omission of a downstream indexed delivery obligation cannot be understood as the rejection of a requirement that the apportionment for Texas actually reach Texas, that the apportionment be measurable, or that the State of Texas itself—rather than just the water users or Water Districts—have some ability to monitor and enforce Texas’s sovereign right to the apportionment.

Third Report 72, *see also, id.* at 73-75. “[T]he Consent Decree clarifies the Texas apportionment as

a measurable sum.” *Id.* at 68. For that reason, even the United States concedes that “some index methodology could be a component of a remedy in this case.” *Id.* at 75 n.6.³

Accordingly, the contention that a state-line delivery would require “updating” the Compact with congressional consent, U.S. Br. 44, is mistaken. The Index merely provides “a measurement” to test compliance with the programmatic “division” of water, using an agreed Baseline. Third Report 80; *see also* Barroll 2d Decl. ¶ 5, Doc. 755-E. Nothing in the Compact forbids such a measurement. And, because it merely measures the existing apportionment in a way contemplated by Articles II and XII, *see* Third Report 69-70, there is no need for congressional consent. *See, e.g., Virginia v. Tennessee*, 148 U.S. 503, 520-21 (1893).

2. The United States Is the Agent of the Compact, Not a Principal

Next, the United States appears to disclaim any duties arising under the Compact, arguing the Consent Decree would “turn the United States into an agent of the States” in a manner that is inconsistent with the Compact. U.S. Br. 44-45. The United States is mistaken.

³ The United States also had a direct role in developing the Index it now opposes. *See, e.g.,* 12/15/2022 Hr’g. Tr. 13, 17-19, Doc. 772.

The United States bears the “legal responsibility” and “dut[y]” to operate the Project to achieve the Compact’s purpose. *Texas v. New Mexico*, 583 U.S. at 413-14. As the Court stated, the “Compact is inextricably intertwined with the Rio Grande Project and the Downstream Contracts,” and the United States acts as a “*sort of agent of the Compact*, charged with assuring” that the “equitable apportionment to Texas and part of New Mexico is in fact made,” *id.* (internal quotation marks omitted, emphasis added).

The United States asserts, incorrectly, that Reclamation, and not the Compact, “dictate[s] the terms of the apportionment” below the Reservoir. U.S. Br. 45. That radical position would stand the normal principles of compact apportionment on their head and vest the United States with freedom to determine how much water New Mexico and Texas receive. *See, infra*, Argument II.A.2. Because the Compact, not Reclamation, establishes the apportionment, Compact, Preamble, Reclamation simply does not have discretion to adjust the amount of water to which each State is entitled. Any other result would undermine State sovereignty and allow the apportionment to change based on the unilateral actions of the United States—a non-signatory to the Compact. *Cf.* Burke W. Griggs, *Interstate Water Litigation in the West: A Fifty-Year Retrospective*, 20 U. Denv. Water L. Rev. 153, 155 (2018) (hereinafter “Griggs, 2018”) (“Federal agencies have regularly [applied] over-reaching efforts to reserve and secure water supplies for Bureau of Reclamation . . . irrigation projects.”).

The United States again fails to identify specific Compact language supporting its position, relying instead on the Compact's silence for the proposition that Reclamation has discretion to "determine[] the downstream apportionment." U.S. Br. 45. The Court has noted, however, Congress's reluctance to interfere in matters related to the division and use of water:

The history of the relationship between the Federal Government and the States in the reclamation of the arid lands of the Western States is both long and involved, but through it runs the consistent thread of purposeful and continued deference to state water law by Congress.

California v. United States, 438 U.S. at 653. The "power to control . . . public uses of water, 'is an essential attribute of sovereignty,'" and a "State does not easily cede its sovereignty." *Tarrant Reg'l Water Dist. v. Herrmann*, 569 U.S. 614, 631 (2013) (*Tarrant*) (quoting *United States v. Alaska*, 521 U.S. 1, 5 (1997)); see also *New York v. New Jersey*, 598 U.S. 218, 225 (2023). Therefore, "when confronted with silence in compacts touching on the States' authority to control their waters," any inference should be drawn to conclude that the States did not "relinquish their sovereign powers." *Tarrant*, 569 U.S. at 632. In this case, the United States' position should be rejected because there is nothing in the Compact to indicate that the States intended "to concede [to the federal government] all authority concerning the protection of their sovereign apportionments." Third Report 74.

3. The D2 Baseline Is Consistent with the Compact

Finally, the United States contends that the Consent Decree is inconsistent with the Compact because it uses the D2 Baseline instead of a 1938 Baseline. U.S. Br. 46-47. The United States' sole basis for asserting that this violates the Compact is not the Compact itself, but a claim that the Special Master "recognized as much in his summary judgment ruling." U.S. Br. 47. That statement is contrary to the Special Master's own explanation of his ruling. *See, supra*, Argument I.B. He rejected the United States' argument and explained that the evidence "strongly suggested some downstream pumping could be tolerated without materially interfering with the Project." Third Report 76-77.

Turning to the Baseline below the Reservoir, a "part[y's] course of performance under [a] Compact is highly significant' evidence of its understanding of the Compact's terms." *Tarrant*, 569 U.S. at 636 (quoting *Alabama v. North Carolina*, 560 U.S. 330, 346 (2010)); *see also* Restatement (Second) of Contracts § 202(4) (Am. Law Inst. 1979). The United States' lengthy course of performance weighs heavily against its recent embrace of a 1938 Baseline.

Rather than object to groundwater pumping, as would be expected if it believed in a 1938 Baseline, Reclamation actively *encouraged* groundwater pumping in both New Mexico and Texas. 10/5/2021 Trial Tr. Vol. II, 27-34, Doc. 701; 10/6/2021 Trial Tr. Vol. III, 147, 152, 158-74; 10/20/2021 Trial Tr. Vol. X,

57-72; Tr. Ex. NM-0571, App. 34-36; Tr. Ex. NM-2097, App. 47-49.

After the D2 Period ended, it was Reclamation, not the States, that developed the D2 Curve based on Project operations from 1951-1978—not 1938—as a means of allocating Project water. United States of America’s Memorandum in Support of Motion for Partial Summary Judgment (U.S. Mem. PSJ) ¶¶ 48-49, 69-70, Doc. 414; Tr. Ex. JT-0443 ¶ 18, App. 8. And it was Reclamation, not the States, that applied the D2 Baseline to divide Rio Grande water for over 40 years. Tr. Ex. NM-1061, RFA 84, App. 40. Reclamation still uses the D2 Curve to allocate water under the 2008 Operating Agreement. 2008 Operating Agreement § 2.5, App. 61-62. That agreement, which the United States signed, states that its terms are consistent with the Compact. *Id.* § 6.12, App. 72. Indeed, in the Final Environmental Impact Statement evaluating the 2008 Operating Agreement, Reclamation identified the D2 Baseline as its preferred alternative, acknowledging that it was “largely consistent with prior operating practices during the period, 1980-2007.” Tr. Ex. NM-0210, App. 24; *see also id.* at 24-26.

Further, the United States’ own witnesses continue to advocate for the D2 Baseline. Dr. Ferguson, the United States’ primary expert hydrologist, for example, opined that “use of the D1 and D2 Curves is an appropriate basis to determine allocations . . . because the Curves are based on historical Project operations during the period 1951-1978.” U.S. Supp. Expert Witness Disclosure, Ferguson 5, Doc. 370. In light of this evidence, the

Special Master questioned whether the United States could even argue against a D2 Baseline “with a straight face.” 2/6/2023 Hr’g Tr. 71:21-22, Doc. 779.

II. THE UNITED STATES HAS NO VALID CLAIM TO AN APPORTIONMENT

A consent decree “cannot dispose of the valid claims of nonconsenting intervenors.” *Firefighters*, 478 U.S. at 529. At the same time, an intervenor cannot “hold the other parties hostage in ongoing litigation” by blocking a consent decree. *Sierra Club v. North Dakota*, 868 F.3d 1062, 1066 (9th Cir. 2017). To resolve tension between these competing principles, the inquiry is whether the United States has any *valid claims* that were resolved by the Consent Decree.

The argument that the Consent Decree improperly disposes of the United States’ “Compact claims,” U.S. Br. 17-28, fails for four related reasons: (1) the United States does not have a distinctively federal interest in the States’ apportionment; (2) it did not plead a 1938 Baseline; (3) the circumstances on which the Court allowed the United States’ claims do not justify expanding the scope of this case; and (4) the United States can litigate any remaining claims without burdening this Court’s original jurisdiction.

A. The United States Has No Distinct Interest in the Apportionment

Under the *Firefighters* standard, a consent decree may not dispose of an objector’s valid claims “in the

forbidden sense of cutting [it] off from a remedy,” *Lawyer v. Dep’t of Justice*, 521 U.S. 521, 579 (1997), “to which evidence adduced at trial may show that it is entitled.” *United States v. Ward Baking Co.*, 376 U.S. 327, 334 (1964). Whether an intervenor can “veto proposed compromises” depends “upon the nature of the intervenor’s interest.” *Kirkland v. N.Y. State Dep’t of Corr. Servs.*, 711 F.2d 1117, 1125-26 (2d Cir. 1983) (citing cases).

The narrow issue resolved by the Consent Decree is “the dispute over the Texas and downstream New Mexico apportionments[.]” Third Report 2. To succeed on its argument that the Consent Decree disposes of “valid” claims, the United States must, therefore, establish that it has an interest in the apportionment. Put another way, the United States must show that it has a “distinctively federal interest,” *Texas v. New Mexico*, 583 U.S. at 413 (quoting *Maryland v. Louisiana*, 451 U.S. at 745 n.21), separate and apart from Texas, in a specific amount of water arriving at the state-line. As explained below, the Consent Decree does not dispose of any valid claim of the United States because the Compact apportions water to the States, and the United States has no interest in a specific division of water.

1. The United States Does Not Have an Apportionment

The Compact fixes the apportionments of Colorado, New Mexico, and Texas with respect to the waters of the Rio Grande from its headwaters to Fort Quitman, Texas. Compact, Preamble. It does not

provide an apportionment to the United States. *Id.*; see also First Report 229-30, Doc. 54. The United States' interest under the Compact is thus limited to its role as "a carrier and distributor of the water," *Nebraska v. Wyoming*, 325 U.S. at 614-16, or, in the words of the Court, an "agent" entrusted with ensuring that the apportionment "is, in fact, made," *Texas v. New Mexico*, 583 U.S. at 413 (internal quotation marks omitted). For that reason, the United States does not have an interest in the precise apportionment of water as between Texas and New Mexico downstream of the Reservoir.

Even if it has no claim to a specific apportionment, the United States says it "seeks to establish" that New Mexico "has a duty not to interfere" with its delivery of the Texas apportionment. U.S. Br. 21. It has already been established, however, that New Mexico "has a Compact-level duty to avoid material interference with Reclamation's delivery of Compact water to Texas." SJO 5. But that duty only "begs the question" of what is meant by "material interference." *Id.* at 6. Answering that critical question requires specifying a Baseline since "some downstream pumping could be tolerated without materially interfering with the Project[.]" Third Report 77. The Consent Decree and the agreed D2 Baseline provide the answer. Far from disposing of the United States' "interference" claim, the Consent Decree will define the apportionment so that the United States understands the contours of its obligations. And because it has no apportionment, the United States has no valid basis to challenge the Consent Decree or the D2 Baseline. In short, the

Consent Decree does not dispose of a valid claim because, unlike Texas, the United States has no distinctively federal interest in the specific amount of water arriving at the state-line.

2. The Compact, Not Reclamation, Sets the Apportionment

The United States disagrees that it has no valid claim to the apportionment. It argues that the apportionment is defined, not by the Compact, but by the operation of the Project. *E.g.*, U.S. Br. 45. Recognizing this as a “fundamental” theme that “permeates” the United States’ position, the Special Master observed that “the Consent Decree largely must rise or fall” based on the “relative authority” of the Compact and reclamation law. Third Report 54. Because it is the Compact, and not Reclamation, that sets the apportionment, the Consent Decree does not dispose of any valid claim of the United States.

The Court has long recognized that the States have a quasi-sovereign “interest independent of and behind the titles of its citizens” with respect to natural resources within their domain. *Georgia v. Tenn. Copper Co.*, 206 U.S. 230, 237 (1907). It follows that the division of an interstate stream is a “matter of sovereign interest.” *New Jersey v. New York*, 345 U.S. 369, 372-73 (1953). With respect to that interest, the States represent the water users as *parens patriae*. *Hinderlider*, 304 U.S. at 107; *see also Kentucky v. Indiana*, 281 U.S. 163, 173-74 (1930).

States may adjust the rights of their citizens by compacting with the consent of Congress. *See*

Hinderlider, 304 U.S. at 106. A compact “operat[es] with the same effect as a treaty between sovereign powers,” with “each [State] acting as a quasi-sovereign and representative of the interests and rights of her people.” *Id.* at 107 (quoting *Rhode Island v. Massachusetts*, 37 U.S. (12 Pet.) 657, 725 (1838); *Wyoming v. Colorado*, 286 U.S. 494, 508-09 (1932)). Once established by compact, an apportionment is considered “fixed” and “conclusive.” *Hinderlider*, 304 U.S. at 106. The Compact apportionment on the Rio Grande is thus “binding upon the citizens of each State and all water claimants.” *Id.*

This includes the water rights associated with the Project. While the United States appropriated water under New Mexico territorial law, it did so “not for the use of the government,” but “for the use of the land owners.” *Ickes v. Fox*, 300 U.S. 82, 95 (1937). As citizens of their respective States, the water users in the Districts are bound by each State’s apportionment, *Hinderlider*, 304 U.S. at 106-07.

The Project, in turn, allocates and distributes the States’ apportionments to water users in each State. *Nebraska v. Wyoming*, 325 U.S. at 611, 614-15, 629. Early in the case, the United States recognized this hierarchy, conceding that Reclamation’s rights and obligations “are considered only after the respective rights of the States under the Compact—the subject of this original action—are defined.” U.S. Resp. to EPCWID Mot. to Intervene 10, June 10, 2015.

The United States now dismisses *Hinderlider* because it “did not involve a consent decree.”

U.S. Br. 36. But that distinction has no bearing on the sovereign power of the States to “bind by compact their respective appropriators.” *Hinderlider*, 304 U.S. at 108. Directing that principle to this case, the United States cannot complain that the Consent Decree would affect the rights of any Project beneficiary to receive and use Project water. Once the apportionment was established by the Compact, the rights of the users “can rise no higher than those of [their State].” *Nebraska v. Wyoming*, 295 U.S. 40, 43 (1935); *see also* Third Report 58-59 (“[r]ights granted by a sovereign as to its share of an interstate stream” are “subject to curtailment by that sovereign” in any “interstate apportionment exercise with another state”).

Relying on *Hinderlider*, the Special Master concluded that “the shifting sands of Reclamation law or state law do not define the rights and duties within a superior source of authority that controls the relationships between the Compacting States: the Compact itself.” Third Report 14. The United States rejects this conclusion, asserting instead that “the Compact entrusts the allocation of water below Elephant Butte to the Project.” *See* U.S. Br. 45; *see also* EPCWID Br. 28, Doc. 788. It claims, in effect, unchecked discretion to change the division of water as between Texas and New Mexico through Project accounting and operations. *See, supra*, Argument I.C.2. This position is tantamount to declaring that Texas and New Mexico have no set apportionment at all, and the Court should reject it for two reasons.

First, the United States’ position turns on its head the hierarchy of authorities governing the distribution of water within a federal irrigation project. Section 8 of the Reclamation Act requires Reclamation to appropriate and distribute water under applicable state laws. 43 U.S.C. § 383. On that basis, the Court has repeatedly recognized federal deference to State control over water.⁴ In *California v. United States*, this Court confirmed that Section 8 requires the federal government to comply with state water laws in operating its federal Reclamation projects. *California v. United States*, 438 U.S. at 665, 667. As the Court explained, the federal government must initially “appropriate, purchase, or condemn necessary water rights in strict conformity with state law,” and then, “once the waters [are] released from the Dam, their distribution to individual landowners would again be controlled by state law.” *Id.* at 667. In enacting Section 8, Congress “intended to defer to the substance, as well as the form, of state water law.” *Id.* at 675; *see also Nevada v. United States*, 463 U.S. 110, 122 (1983).

Applying these principles here, Section 8 of the Reclamation Act requires the United States to distribute water within the Project under applicable state and federal laws, including the Compact. Because the Compact requires a specific

⁴ *See, e.g., California v. United States*, 438 U.S. at 647-74; *Cal. Or. Power Co. v. Beaver Portland Cement Co.*, 295 U.S. 142, 155 (1935); *Nebraska v. Wyoming*, 325 U.S. at 612; *Kansas v. Colorado*, 206 U.S. at 94; *United States v. Rio Grande Dam & Irrigation Co.*, 174 U.S. 690, 702-03 (1899).

apportionment between the States, it is the paramount authority on the division of water, and Project operations must conform to it unless there is a conflicting congressional directive. *See California v. United States*, 438 U.S. at 676. The Special Master found no such conflicting directive, Third Report 88-90, and the United States fails to identify any specific congressional authority that would permit Reclamation to operate the Project in a manner inconsistent with the Compact apportionment.⁵ *See Tarrant*, 569 U.S. at 631-32 (silence in a compact should be read in favor of state sovereign authority over water).

Second, it is law of the case that the division of water below the Reservoir is *not* purely a matter of Project operations. In the motion to dismiss that precipitated the First Report, New Mexico argued that Project operations, rather than the Compact, define the division of water below the Reservoir. *See* N.M. Mot. to Dismiss 30-40, Apr. 30, 2014. The United States' theory is remarkably similar. It argues that the Compact apportionment is defined through Reclamation's operation of the Project, and the Compact imposes no obligation to deliver a

⁵ The United States advances an unduly narrow reading of the Court's opinion in *California v. United States*. U.S. Br. 37. Contrary to that view, "*California v. United States* is cast in broad terms" and "held simply that § 8 requires the Secretary of the Interior to comply with state laws, not inconsistent with congressional directives, governing use of water employed in federal reclamation projects." *California v. FERC*, 495 U.S. 490, 504 (1990).

discernable amount of water to Texas separate from reclamation law. U.S. Br. 44-45. The problem for the United States is that this theory was rejected, and no party took exception to that part of the First Report. *E.g.*, First Report 195, 212-13.

In sum, the Consent Decree does not dispose of any valid claim because the Compact, not the United States' operation of the Project, is the "superior source of authority that controls" the specific apportionment between Texas and New Mexico. Third Report 14.

B. The United States Did Not Plead a 1938 Baseline

A separate reason the Consent Decree does not dispose of an existing claim is that the United States did not plead a 1938 Baseline. When forced to articulate the claims that it would lose upon entry of the Consent Decree, the only explicit claim the United States can name is a desire to litigate whether New Mexico is violating the Compact by allowing groundwater pumping "beyond the levels that existed" in 1938. *See, e.g.*, U.S. Br. 22. The 1938 Baseline is only meaningful in this case, however, because it would inform the amount of water that will arrive at the Texas state-line. But as described above, the United States has no valid claim to a specific apportionment, and its 1938 Baseline argument can be resolved on that basis alone. *See, supra*, Argument II.A.

The United States' argument suffers from another defect. The Court only permitted the United

States to “pursue the Compact claims *it has pleaded* in this original action.” *Texas v. New Mexico*, 583 U.S. at 415 (emphasis added). Unlike Texas, the United States did not plead a 1938 Baseline. Compare Texas Compl. ¶ 10 with U.S. Compl. ¶¶ 14-15. Instead, it alleged only that “[u]ncapped use of water . . . *could* reduce Project efficiency to a point where 43% of the available water could not be delivered” to Texas. U.S. Compl. ¶ 15 (emphasis added).⁶ That is a far cry from a 1938 Baseline. And in explaining its federal interest to the Court, the United States noted that it allocates water “based on 1951-1978 hydrological conditions”—that is, a D2 Baseline. U.S. Intervention Mem. 5, Feb. 27, 2014. In other words, it requested leave to intervene to ensure the litigation would not “undermine the assumptions underlying” its reliance on *the D2 Baseline* to allocate water. *Id.* at 6. Consequently, in addition to lacking an interest in the apportionment, the United States has no valid claim to a 1938 Baseline for the separate reason that it did not plead a 1938 Baseline. *Nebraska v. Wyoming*, 515 U.S. 1, 8 (1995) (claims in original actions are limited to what the Court “reasonably anticipated when [it] granted leave to file the initial pleadings”).

⁶ The United States also alleges New Mexico has allowed groundwater pumping without a Reclamation contract, but that allegation does not assert a Compact Baseline. See U.S. Compl. ¶ 13.

C. The Considerations Allowing the United States' Claims Do Not Justify Expanding this Original Action

The Court allowed the United States to file “a complaint with allegations that parallel Texas’s.” *Texas v. New Mexico*, 583 U.S. at 411. It framed its decision with reference to four considerations, but also cautioned that its decision to allow the United States to participate should not be “confused for license.” *Id.* at 413. Specifically, the posture at the time of the 2018 Decision did not present the questions whether the United States could “expand the scope” of the case in the absence of “parallel” Texas claims, or whether a different result would obtain if the “considerations” changed. *Id.* at 411. Contrary to the argument of the United States, U.S. Br. 25-27, the considerations have shifted in meaningful ways, and the Court should reject the United States’ request to refuse the Consent Decree and expand the scope of this original action. Third Report 95.

1. The Consent Decree Will Enable the United States to Fulfill Its Compact Duties

The Court’s first two considerations from its 2018 Decision relate to the United States’ “integral role in the Compact’s operation” because the Compact is “inextricably intertwined” with the Project such that the United States bears an obligation to deliver the equitable apportionment. *Texas v. New Mexico*, 583 U.S. at 413. The Consent Decree maintains those obligations and provides

guidance that “allows the United States to meet its duties,” *Texas v. New Mexico*, 583 U.S. at 414, by resolving the dispute over the Baseline.

The United States alleges that “[u]ncapped” groundwater pumping in New Mexico “could reduce Project efficiency to a point where” Reclamation could not meet its delivery obligations. U.S. Compl. ¶ 15. To remedy that allegation, the relief sought by the United States was to “mandate that New Mexico affirmatively prevent” unauthorized “interception and interference” of Project deliveries intended for Texas. *Id.* at 5, ¶¶ (c), (d). The United States’ claims are therefore properly understood as seeking relief to prevent New Mexico from interfering with the United States’ “legal responsibility” to “deliver a certain amount of water to Texas” in a manner that “assur[es] that the Compact’s equitable apportionment to Texas and part of New Mexico, is in fact, made.” *Texas v. New Mexico*, 583 U.S. at 413 (internal quotation marks omitted). In short, the United States’ “valid” claim in this case seeks relief to allow it to satisfy its duty to deliver Texas’s equitable apportionment. *See* Third Report 27 (the United States was allowed to intervene to protect its “Treaty and Compact *duties* even if the Compact did not apportion water to the United States itself”).

The Consent Decree provides the relief sought by the United States by defining Texas’s apportionment and obligating New Mexico to “administer water rights in the Lower Rio Grande to ensure compliance with the Rio Grande Compact and the Consent Decree.” Hamman Decl. ¶ 13, Doc. 720-5; *see also* Consent Decree II.B.ii.a. It thus facilitates

compliance with New Mexico's "Compact-level duty to avoid material interference" by limiting groundwater pumping and protecting deliveries to Texas. SJO 5. In that way, the Consent Decree addresses the United States' concern that "uncapped" use of groundwater would prevent it from delivering the Texas apportionment. U.S. Compl. ¶ 15.

2. The United States' Treaty Obligation Is Not Implicated

The third consideration cited by the Court was the United States' interest in meeting its treaty obligations to Mexico. *See Texas v. New Mexico*, 583 U.S. at 413-15. Entry of the Consent Decree would not impair this interest because the Consent Decree tracks the language of the Compact to forbid "affecting the obligations of the United States of America to Mexico under existing treaties[.]" Consent Decree IV.B. Even without this language, because the methodology calculates the Index Delivery to Texas as a remainder *after* accounting for deliveries to Mexico, it has no effect on treaty obligations. Barroll Decl. ¶ 22, Doc. 720-6; U.S. Br. 8. In any event, the United States has not pursued the treaty in this litigation. It presented no evidence during the first phase of trial on the issue, disclosed no expert opinions, and has identified no exhibits that support a theory that its treaty obligations with Mexico will be impacted by employing the Index to resolve the dispute between Texas and New Mexico.

3. The United States Should Not Be Allowed to Expand the Scope of the Existing Litigation

The Court's fourth consideration was that "the United States has asserted its Compact claims in an existing action brought by Texas, seeking substantially the same relief and without that State's objection." *Texas v. New Mexico*, 583 U.S. at 415. The Exception tests the limits of the Court's "permission," *id.* at 413, and squarely presents the questions that were reserved in the 2018 Decision: (1) whether to allow the United States to raise independent claims concerning the apportionment even though it has no entitlement to water; and (2) whether the federal government should be allowed to block an interstate settlement and thereby "expand the scope of [the] existing controversy between the States," *id.* at 415. Section II.A, *supra*, answers the first question in the negative. The answer to the second question should also be no.

The United States' opposition to the resolution of the Compact apportionment would "expand the scope of [the] existing controversy" in two significant ways. *Texas v. New Mexico*, 583 U.S. at 415. First, in allowing the United States to pursue claims, the Court relied, in part, on the fact that the United States' participation was "without [Texas's] objection" and that it "asserted . . . substantially the same relief" as Texas. *Id.* at 413-15. At that time, Texas and the United States were aligned given that the United States was responsible for "assuring that the Compact's equitable apportionment to Texas . . .

[was], in fact, made.” *Id.* at 413. But now, the United States is no longer aligned with Texas. Instead, it argues for a different apportionment than the Compacting States have agreed effectuates the Compact. It is hard to imagine that the Court contemplated that the federal government would use its participation to prevent a settlement of Compact issues that do not directly affect the United States. *See Alabama v. North Carolina*, 560 U.S. at 356-57 (warning that complaint of an intervening compact commission “assert[ing] the same claims” and “seek[ing] the same relief” as the compacting states must “rise or fall with the claims of the States”).

Second, as articulated by the Special Master,

Nothing in the Court’s opinion suggested the Court believed it was opening the field of play to claims seeking to address detailed matters of Reclamation law, disputes as to the relative rights of persons within one state, or any other issue that could properly be addressed in a different forum.

Third Report 95. Yet that is exactly what sustaining the Exception would do. The narrow pathway created for the United States’ participation was premised on the existence of Texas’s parallel claims. With the interstate settlement and resolution of the Texas apportionment, the only remaining issues would relate to reclamation law or “intramural dispute[s]” over the distribution of water within New Mexico. *New Jersey v. New York*, 345 U.S. at 373.

D. The Original Jurisdiction Is Not the Appropriate Forum to Litigate the United States' Remaining Claims

The Special Master concluded that “the dismissal of the United States’s current claims without prejudice to asserting those claims in one of several ongoing or any new lower court actions comports with [*Firefighters*].” Third Report 99; *id.* at 100-02, 113. The Court should adopt that reasoning.

The Court is reluctant to exercise concurrent original jurisdiction where the plaintiff has another forum. *South Carolina v. North Carolina*, 558 U.S. 256, 267 (2010); *South Carolina v. Regan*, 465 U.S. 367, 402 n.18 (1984) (O’Connor, J., concurring). Thus, this Court is not the best forum to resolve any remaining disputes following the resolution of any interstate claims. *See California v. Nevada*, 447 U.S. 125, 133 (1980) (“litigation in other forums seems an entirely appropriate means of resolving whatever questions remain” following resolution of the border dispute between the states); *United States v. Nevada*, 412 U.S. 534, 536-39 (1973) (per curiam) (similar).

The Consent Decree would resolve the dispute between the Compacting States, so the only remaining claims would pose an *intrastate* dispute between the United States and New Mexico. This dispute may include issues related to reclamation law, Project operations, or the details of New Mexico water administration including, for example, the nature of the underlying Project water right, whether junior diversions in New Mexico are

impairing the Project right, and whether certain water uses require Reclamation contracts. *See* U.S. Compl. ¶¶ 12-14. This original action is not the appropriate forum to resolve those remaining claims.

As an initial matter, the United States has never directly invoked jurisdiction under the non-exclusive original jurisdiction. *See* 28 U.S.C. § 1251(b)(2). In its Complaint, the United States relied entirely on the provisions of Article III of the Constitution and 28 U.S.C. § 1251(a) to support its intervention. It even took exception to the Special Master's recommendation that this Court extend its discretionary jurisdiction under 28 U.S.C. § 1251(b)(2) to hear the United States' reclamation law claims against New Mexico. First Report 237.

Further, to the extent that the United States' claims relate to *intrastate* issues within New Mexico, such claims are beyond the scope of this original action. Because interference with the Project *in New Mexico* is not an interstate issue, the Court "need not employ [its] original jurisdiction to settle competing claims to water within a single State." *United States v. Nevada*, 412 U.S. at 538.

There are several available fora in which the United States may address intrastate water use within New Mexico, including several pending cases. These include existing lawsuits such as *New Mexico v. United States*, Case No. 11-cv-00691 (D.N.M. filed Aug. 8, 2011), a stayed lawsuit regarding the 2008 Operating Agreement and distribution of Project supply, or New Mexico's general stream system adjudication of the lower Rio Grande, in

which the nature and extent of the United States' rights under New Mexico law are in the process of being litigated, see *State of New Mexico ex rel. State Eng'r v. Elephant Butte Irrigation Dist.*, No. D-307-CV-96-888 (3d Jud. Dist. Ct. Dona Ana County, N.M.). The United States may also request administrative action at any time by the New Mexico State Engineer. Hamman Decl. ¶¶ 8, 14(a), 14(g), 15, Doc. 720-5.

At any rate, “[b]ecause the Consent Decree clarifies the Compact’s apportionment and protects downstream Texas and Treaty water deliveries, the United States does not need an original jurisdiction forum to address its remaining concerns as to the details of water capture within New Mexico.” Third Report 11.

III. THE CONSENT DECREE DOES NOT IMPOSE OBLIGATIONS ON THE UNITED STATES

A consent decree may not impose obligations on a non-settling party. The United States argues that “*any* obligation imposed in a consent decree would necessarily be a new obligation, created by the decree itself.” U.S. Br. 38 (emphasis in original). On that basis, the United States poses a sweeping theory of *Firefighters* to forbid the Consent Decree from having “*any*” effect on Reclamation’s operations. This is an important distinction, because the United States is already obligated to distribute water to New Mexico and Texas consistent with their respective apportionments.

A. The United States Must Identify a New Obligation in Order to Block the Settlement

To support its argument that any effect on the Project is forbidden, the United States points out that “the word ‘new’ does not appear” in the *Firefighters* test. U.S. Br. 38. Although accurate, the United States overlooks that the Court uses the word “impose,” *Firefighters*, 478 U.S. at 522, 529, which means “to establish,” Webster’s New Collegiate Dictionary 605 (9th ed. 1986). Taken together, *Firefighters* prohibits a consent decree from *establishing* a legal obligation that did not otherwise exist.

Contrary to the United States’ bright-line test, there is a distinction between agreements that “impose” a new obligation on a nonconsenting party, *Firefighters*, 478 U.S. at 522, and those that indirectly affect preexisting obligations. *See, e.g., Martin v. Wilks*, 490 U.S. 755, 771 (1989) (Stevens, J., dissenting) (noting “as a practical matter,” a consent decree “may have a serious effect” on the interests of an objecting party without requiring his consent); *United States v. Bd. of Educ.*, 11 F.3d 668, 672 (7th Cir. 1993) (“A consent decree . . . can have adverse consequences on third parties without thereby being rendered invalid.”). A party seeking to invalidate a consent decree must demonstrate that the decree would affect its substantive rights in a way beyond the objector’s preexisting obligations. *See, e.g., Sierra Club v. North Dakota*, 868 F.3d at 1067 (upholding consent decree because any duty to collect and submit data

was imposed by a preexisting regulation); *Fla. Wildlife Fed'n, Inc. v. S. Fla. Water Mgmt. Dist.*, 647 F.3d 1296, 1299-01 (11th Cir. 2011) (preexisting regulations already required promulgation of new rules); *Tenn. Ass'n of Health Maint. Orgs., Inc. v. Grier*, 262 F.3d 559, 565 (6th Cir. 2001) (requirement to administer Medicaid administrative hearings already imposed by preexisting contracts); *see also* States S.M. Reply 53-57, Doc. 755 (discussing cases).

Thus, the Special Master correctly distinguished between “impos[ing]” new legal duties and obligations in the manner proscribed in *Firefighters*, 478 U.S. at 522, and “merely affect[ing] the manner in which the United States will carry out its preexisting duties,” Third Report 53. The United States is required to operate the Project in compliance with the Compact, regardless of whether the Court approves the Consent Decree.

B. The Consent Decree Does Not Impose New Obligations on the United States

The Consent Decree modifies and clarifies the United States’ existing duties, but it does not impose new legal obligations on the United States. Third Report 104.

1. Reclamation Has a Preexisting Duty to Operate the Project Consistent with the Compact

Reclamation has a preexisting duty to operate the Project in compliance with the Compact. *See* Third

Report 104-08. Three points reinforce this conclusion.

First, as this Court has held irrespective of the Consent Decree, Reclamation has “assumed a legal responsibility” under the Downstream Contracts to “assur[e] that the Compact’s equitable apportionment to Texas and part of New Mexico is, in fact, made.” *Texas v. New Mexico*, 583 U.S. at 413 (internal quotation marks omitted). The Special Master correctly recognized the same. Third Report 104-08; SJO 6-7, 46, 51.

Second, background principles require Reclamation to operate the Project consistent with the Compact apportionment. *See, supra*, Argument I.C.2; *see also* Third Report 54-66; 43 U.S.C. § 372.

Third, Reclamation has acknowledged its preexisting “legal responsibility” to operate federal water projects in conformity with the Compact apportionment. *See, e.g.*, U.S. Br. 39; 10/5/2021 Trial Tr. Vol. II, 12:10-24, Doc. 701. Indeed, as the United States has explained, the Districts’ receipt and delivery of Project water within its service area has no effect on how the water is allocated among the States under the Compact” because “[t]hose contractual rights and obligations are considered only after the respective rights of the States under the Compact—the subject of this original action—are defined”) U.S. Resp. to EPCWID Mot. to Intervene 10; *see also* Lopez Decl. ¶ 16, Doc. 755-D (“Reclamation must operate the Project in conformity with the Compact, regardless of the existence of

various Reclamation contracts associated with the Project in both New Mexico and Texas.”). This concession is hardly unique: the United States has elsewhere also “made clear that [its agencies] will work to accommodate any determinations or obligations the Court sets forth if a final decree equitably apportioning the Basin’s waters proves justified.” *Florida v. Georgia*, 138 S. Ct. 2502, 2526 (2018).

2. None of the Responsibilities the United States Identifies Are New

To block the Consent Decree, the United States must show more than a trivial variation to its operations—it must establish that the Consent Decree would “adversely affect” a legal right or duty unique to the United States. *Kirkland*, 711 F.2d at 1126. The United States has not met this standard, as demonstrated by an evaluation of the three specific features of the Consent Decree to which the United States objects: accounting procedures, balance transfers, and use of the El Paso Gage. U.S. Br. 29-43.

a. Accounting Procedures

The United States argues the Consent Decree’s terms would give the States a “right to interfere” with Project operations, including by requiring “changes to Project operations and accounting.” U.S. Br. 45.

But as the United States concedes, it already conducts accounting procedures. U.S. Br. 8, 9. The

Consent Decree simply defines in more detail the Compact obligations of the States, and by extension the United States, to ensure that the 57:43 apportionment required by the Compact is completed. The United States fails to explain why it would adversely affect its rights for it to incorporate any of the methodologies it protests. While it would be no more burdensome to incorporate those methods into Project accounting, the United States is not, as a technical matter, required to do so. Barroll 2d Decl. ¶ 11, Doc. 755-E. As long as Project allocations conform to the Compact apportionment as articulated under the Consent Decree, the United States may use any accounting procedures it likes. Consent Decree ¶ III; Third Report 10, 11.

In arguing to the contrary, the United States raises the specter of further changes to Project operations because the Appendix to the Consent Decree can be modified. U.S. Br. 32. The purpose of that provision is to allow the States to correct errors or improve the technical provisions without petitioning the Court to approve minor changes. Such provisions are found in other compacts and decrees. *E.g.*, *Texas v. New Mexico*, 485 U.S. 388, 392 (1988) (per curiam) (authorizing the states to alter the River Manual governing accounting for the Pecos River Compact by written agreement). In any event, the Consent Decree cannot force the United States to adopt specific accounting procedures so long as the Project accounting is consistent with the Compact.

b. Apportionment Transfers

The United States contends the Consent Decree would force Reclamation to transfer water between the Districts “in ways not permitted by the downstream contracts,” without identifying any provision of those contracts this would violate. U.S. Br. 22; *see also id.* at 40. This argument is unfounded because the Compact, not the contracts, establishes the apportionments to the States. Section II.A.2, *supra*. Moreover, the contractual obligation to share shortages 57:43 is consistent with the Consent Decree and historical Project operations. U.S. Br. App. C-E. Pursuant to the Index, if there is a significant negative or positive Accrued Index Departure, this indicates that a State has received more water than its Compact entitlement—and that a District has received more water than the Downstream Contracts allow. “Such exceedance would indicate substantial deviation from the 57:43 Compact apportionment between New Mexico and Texas.” Barroll 2d Decl. ¶ 15, Doc. 755-E. The transfers contemplated by the Index provide guard rails that ensure that Reclamation fulfills its obligations to deliver water in accordance with the 57:43 apportionment. *Id.*; *see also* Third Report 64-65 (finding the apportionment transfers to be justified under *Hinderlider* and *California v. United States*). This accords with Reclamation’s current practice which transfers allocation from EBID to EPCWID to compensate deliveries to EPCWID that fall below the D2 Curve. *See* Barroll 2d Decl. ¶ 16, Doc. 755-E.

c. The El Paso Gage

The United States objects to measurement of the apportionment at the El Paso Gage, which it will have to operate and maintain. U.S. Br. 33. However, the United States is already obligated to operate and maintain the Gage under the treaty with Mexico. Finn Decl. ¶¶ 6-7, Doc. 754; *see also* Sullivan Decl. ¶ 21, Doc. 720-7. The Consent Decree simply requires that the Gage be accurate as defined by the U.S. Geological Survey. Finn Decl. ¶ 9. The United States suggests that the Compact Commission could change its standards “at any time” and that this will necessitate “additional funding and resources.” U.S. Br. 33-34. But no question has been raised as to the current accuracy of the Gage. If necessary, the States have agreed to bear the costs of maintaining the Gage to Compact standards. Third Report 107. Use of the Gage will not impose new obligations on the United States in any way forbidden by *Firefighters*.

C. The Court May Shape Remedies to Address Compact Obligations

Finally, the United States argues against even “de minimis” effects on Project operations, relying on its sovereign immunity from suit. U.S. Br. 40-41. Besides being inconsistent with the *Firefighters* test, section III.A *supra*, this argument should be rejected for three reasons.

First, in evaluating the Consent Decree, the Court should be guided by the unique principles governing its original jurisdiction. The Court has

explained that its “equitable authority to grant remedies is at its apex” in a compact enforcement suit. *Kansas v. Nebraska*, 574 U.S. at 472. The Court’s role in such a suit is “to declare rights under the Compact and enforce its terms.” *Id.* at 455. Because the Court acting in its original jurisdiction “serves as a substitute for the diplomatic settlement of controversies between sovereigns,” *id.* at 453 (quoting *North Dakota v. Minnesota*, 263 U.S. 365, 372-73 (1923) (internal quotation marks omitted)), the Court may adopt a remedy that “in its judgment will best promote the purposes of justice.” *Kansas v. Nebraska*, 574 U.S. at 454 (quoting *Kentucky v. Dennison*, 24 How. 66, 98 (1861)). Thus, the Court will provide remedies necessary to “promote compliance with the agreement.” 574 U.S. at 456. Here, entry of the Consent Decree is the only outcome that would promote “compliance with the agreement” and “the purposes of justice.” *Id.* at 454, 456.

Second, in this case, the United States has wielded its sovereign immunity as both a shield, to block claims against it, Mot. to Dismiss Order 2, Doc. 338, and now as a sword to strike at the settlement reached by the States. The Court should not countenance that behavior. *See, e.g., Nat’l City Bank v. Republic of China*, 348 U.S. 356, 361-62 (1955) (refusing to allow the Republic of China to use the federal courts as both a sword and a shield); *Lapides v. Bd. of Regents*, 535 U.S. 613, 619 (2002) (instructing that “a Constitution that permitted States to follow their litigation interests” by using immunity as both a sword and a shield “could generate seriously unfair results”).

Third, the United States subjected itself to the jurisdiction of this Court by intervening and seeking a declaration of the Compact apportionment. In doing so, “[t]he United States has agreed it will be bound by any determination of the Supreme Court as to its obligations under the Compact and Project administration.” Mot. to Dismiss Order 15, Doc. 338. Even if it had not waived sovereign immunity, the Court may craft remedies in interstate water cases that bear upon the operation of federal water projects without the United States’ participation or consent. *See Florida v. Georgia*, 138 S. Ct. at 2526; Griggs, 2018, 197 (noting that the United States was “completely absent from the [*Florida v. Georgia*] litigation”). If the Court enters the Consent Decree, it will simply become part of the “constellation of laws” the United States must follow when operating the Project. *Id.*; *see also* United States as *Amicus Curiae* in *Florida v. Georgia* at 32 (Aug. 7, 2017) (acknowledging that unlike a court decree, a compact binds the United States).

IV. REJECTING THE CONSENT DECREE WOULD DISCOURAGE THE AMICABLE SETTLEMENT OF INTERSTATE DISPUTES

The Consent Decree is the product of complex and comprehensive negotiations. It resolves the dispute over the interstate apportionment and would result in the dismissal of all the Compacting States’ claims and counterclaims. The Special Master observed that “it is difficult to envision a resolution to this matter that might be superior to the Consent Decree.” Third Report 15.

This Court has repeatedly expressed “judicial caution in adjudicating the relative rights of States” in interstate disputes such as this, which “involve the interests of quasi-sovereigns,” and “present complicated and delicate questions.” *Colorado v. Kansas*, 320 U.S. at 392; *see also Nebraska v. Wyoming*, 325 U.S. at 616-17 (similar). It has registered a “preference that, where possible, States settle [such] controversies by ‘mutual accommodation and agreement[,]’” *Arizona v. California*, 373 U.S. at 564 (quoting *Colorado v. Kansas*, 320 U.S. at 392; *Nebraska v. Wyoming*, 325 U.S. at 616), opining that such disputes are “more likely to be wisely solved by cooperative study and by conference and mutual concession on the part of representatives of the States so vitally interested in it than by proceedings in any court however constituted.” *New York v. New Jersey*, 256 U.S. 296, 313 (1921); *Texas v. New Mexico*, 462 U.S. at 575 (same); *see also Kansas v. Colorado*, 543 U.S. 86, 106 (2004) (expressing the “hope” that “expert discussion, [and] negotiation . . . would lead to resolution of any remaining disputes”).

Allowing the United States to veto the Consent Decree would have a chilling effect on future interstate water settlements. Not only would it curb States’ willingness to negotiate settlements of compact enforcement and equitable apportionment cases, it would also allow the federal government to inject itself into interstate water disputes in a way that has heretofore been the province of the States.

CONCLUSION

The Court should overrule the Exception, adopt the Third Report, and enter the Consent Decree.

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Tr. Ex. NM-0571, Historical Abstract Regarding Elephant Butte Irrigation District’s Conjunc- tive Management, July 11, 2008 (<i>partial</i>).....	App. 31
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Trial Exhibit JT-0227

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
RIO GRANDE PROJECT – NEW MEXICO-TEXAS
WATER ANNOUNCEMENT
March 1, 1954

Project storage today is 185,200 acre-feet. Storage today is about 17.5 per cent of the average for the date since storage began in 1915. On the same date last year storage was 470,600 acre-feet.

While the March 1 Snow Survey Report is not yet available, there has been nothing during the month of February to indicate a reversal of the drought weather pattern, with the result that it is quite likely the March 1 report will reflect conditions still below normal and the probable runoff, based on the March 1 condition, to be below average. A major change in the weather pattern is necessary during the period March to mid-May to produce appreciable runoff by July 1. Inflow to Elephant Butte during the winter months has been below average. Return flows to the river from the Project drainage system is exceptionally low, resulting in the flow of the Rio Grande at El Paso being the lowest since 1912.

It was decided in a meeting today with the Elephant Butte Irrigation District, and the El Paso County Water Improvement District No. 1 that the current low storage permits an allotment to the water-right repayment lands of the Project at this time of only 5

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inches per acre. Any increase in the allotment will be dependent upon inflow to Elephant Butte reservoir, the possibility of which cannot be estimated at this time. Deliveries after July 1 are dependent on inflow of sufficient volume to maintain distribution system requirements.

It was also decided in the meeting that the gates at Cabello Reservoir will be opened on March 20, for the beginning of the 1954 irrigation season.

Deliveries to owners of two acres or under of water-right land will receive water once during the 45-day period following the opening of the gates on March 20. Deliveries to the community ditch localities will be made under schedules which are now being prepared. The schedules for the community ditch areas will be available shortly, and the ditch-riders in the community areas will be able to advise as to the dates water deliveries will be made in these areas.

The outlook for water supply for the Project this year is discouraging; and unless greater than normal precipitation occurs between now and mid-May, the Project will experience the most severe water shortage during the current drought. Water users are urged to carefully plan their operations so that maximum benefit may be obtained from the minimum water available.

Farmers with good irrigation wells are requested to use them to the greatest extent possible as a source of supply and to make available for transfer their allotment water to those farmers who do not have

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satisfactory wells. Arrangements for such transfer may be made with the Elephant Butte Irrigation District office in Las Cruces, the Rio Grande Project division office in Las Cruces, the office of the El Paso County Water Improvement District No. 1 in El Paso, and the Rio Grande Project division office at Ysleta, Texas.

W. F. Resch
Project Manager

Trial Exhibit JT-0443

EXHIBIT A

AFFIDAVIT OF FILIBERTO CORTEZ

APRIL 20, 2007

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
EL PASO DIVISION

EL PASO COUNTY)	
WATER IMPROVEMENT)	
DISTRICT NO. 1,)	
Plaintiff,)	
)	
vs.)	Cause No.
)	EP07CA0027 (PRM)
ELEPHANT BUTTE)	
IRRIGATION DISTRICT and)	
the UNITED STATES OF)	
AMERICA, DEPARTMENT)	
OF THE INTERIOR, BUREAU)	
OF RECLAMATION)	
)	
Defendants.)	

DECLARATION OF FILIBERTO CORTEZ

In accordance with the provisions of Section 1746 of Title 28, United States Code, I, Filiberto Cortez, the undersigned, hereby make the following unsworn declaration, under penalty of perjury, pertinent to the above-styled and numbered cause:

1. I have been employed by the Rio Grande Project office of the Bureau of Reclamation since 1974

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in various capacities related to civil and hydraulic engineering.

2. I am presently the manager for the El Paso Field Division of the United States Bureau of Reclamation. The El Paso Field Division is responsible, among other assignments, for functions associated with the operation of the Rio Grande Project.

3. I have been chief of the Engineering and Contracts Branch of the Rio Grande Project reviewing requests for construction activities on Reclamation lands by other agencies and providing engineering services for the Rio Grande Project in New Mexico and Texas for design and construction of hydraulic facilities.

4. I have been chief of the Water Operations Branch of the Rio Grande Project responsible for the management of water stored in Elephant Butte and Caballo Reservoirs and for operations of Caballo water releases in order to make the required water deliveries to Elephant Butte Irrigation District (EBID), El Paso County Water Improvement District No. 1 (EPCWID) and Mexico. In this capacity I was also responsible for the water charges and records of the water deliveries to EBID and EPCWID.

5. I have served as a hydraulic engineer in the Water and Land Division of the Rio Grande Project responsible for the management of water stored in Elephant Butte and Cabello Reservoirs, coordinating Rio Grande Compact waters in Abiquiu and Cochiti Reservoirs with Reclamations

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Albuquerque, New Mexico office and the Albuquerque office of the Corp of Engineers.

6. As hydraulic engineer in the Water and Land Division of the Rio Grande Project, I also coordinated flood control operations with Reclamation and other agency offices in the Rio Grande Basin.

7. The Bureau of Reclamation El Paso Field Division calculates and declares the allocation of Project water supply to EBID, EPCWID and Mexico on the basis of water legally available in storage for release and on historical return flows to the Rio Grande between Cabello Dam in New Mexico and the diversion in to the American Canal at the International Dam in the vicinity of El Paso, Texas.

8. The allocation has historically been equally divided to all Project lands on an acre foot per acre basis. Before 1980, Reclamation operated the Rio Grande Project in its entirety, combining storage and return flows so that each acre of farm land received an equal amount of water regardless of the source of the water or what district the land was located.

9. Since 1980 the water allocation has been made to EBID and EPCWID on the basis of their respective acreage relative to the total authorized Rio Grande Project acreage.

10. EBID has 88,000 acres of irrigable land situated in southern New Mexico and EPCWID has 67,000 acres of irrigable land in west Texas.

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11. EBID is allocated 88/155 of the available Project water supply and EPCWID is allocated 67/155 of the available water supply.
12. Mexico is allocated 60,000 acre feet of water annually during full allocation conditions and reduced by the same percentage as the allocation to the lands in the United States during years of short water supplies.
13. For EBID, the amount of water allocated and delivered is measured at the Del Rio lateral, the Eastside and Westside canals, the Leasburg canal, the Arrey canal and various pumps in the river. For EPCWID, the water allocation and deliveries are measured at the Three Saints, La Union East and La Union West laterals where they cross the New Mexico/Texas state line and at the Franklin and Riverside canals.
14. Each year, beginning in December of the previous year, Reclamation issues a Rio Grande Project Water Supply Initial Allocation.
15. In years of less than full allocation conditions, the allocation is updated as additional water available for release reaches Project storage.
16. The allocation describes 1) the total water in storage in Elephant Butte and Caballo Reservoirs; 2) the Project storage water available for release for Project purposes; and 3) the actual initial allocation to Mexico, EBID and EPCWID in acre-feet per annum.
17. Reclamation's initial annual allocation figure is always conservative. It is based in part on water actually available in the reservoirs and is not

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based on predictions of future water availability from spring snow melt or other sources, such as rainstorms, within the watershed. Should more water enter the Elephant Butte and Caballo reservoirs throughout the spring and summer, Reclamation may adjust the districts diversion allocation accounts upward.

18. Water in storage is not allocated. The districts have historically been allotted a diversion allocation which is made up of both storage water and return flows. The allocation is delivered and accounted at the respective gauge stations at the canal headings on the Rio Grande, not the water in storage in Elephant Butte and Caballo Reservoirs. The actual allocation at the delivery points is calculated from an empirical formula, called the D2 curve, that relates the amount of water released from storage in the reservoirs to the amount of water delivered to the headgates downstream. This calculation is based on actual data derived from over 28 years of observation and record keeping.

19. The practice for nearly 100 years of Project operation was that any unreleased storage water or unused diversion allocation from either district went back into the Project supply to be allocated anew the next year.

20. At the end of 2006, EBID had 1,246 acre-feet of unused diversion allocation in its account and EPCWID had 72,400 acre-feet of unused allocation in its account.

21. 39,000 acre-feet of the 72,900 acre-feet in EPCWID's unused allocation account derives from

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EBID's account, Of the remaining 33,400 acre-feet a portion came from adjustments to the account due to extra water taken into its irrigation systems during flooding events caused by last year's summer monsoon rains.

22. The resulting initial 2007 allocation amounts are as follows:

Mexico	24, 385 acre-feet
EBID	152,200 acre-feet
EPCWID	192,881 acre-feet
Total	369,466 acre-feet

23. For 2007, EPCWID was given approximately 56% of the diversion allocation, and EBID was given 44% of the diversion allocation. This percentage calculation is made by first deducting Mexico's allocation from the total. The remaining 345,081 acre-feet is then divided into the amount allocated to EBID (152,200) and EPCWID (192,881) to yield approximately 44% to EBID and 56% to EPCWID.

24. EPCWID has received about 44,000 acre-feet more in the initial allocation for 2007 than it would have received if no changes had been implemented in 2006.

25. The allocation of an additional 72,400 acre-feet of water to EPCWID, either in storage or in additional diversion allocation, above the announced annual allocation amount will mean 72,400 fewer acre-feet of water available for future allocations and deprive EBID of its proportionate share of water.

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Trial Exhibit JT-0444

**UNITED STATES
DEPARTMENT OF THE INTERIOR**

GEOLOGICAL SURVEY [LOGO]
309 Federal Building
Albuquerque, New Mexico
October 23, 1947

Mr. John L. Gregg, Manager
Elephant Butte Irrigation District
Las Cruces, New Mexico

Dear Mr. Gregg:

Herewith is a copy of the preliminary memorandum on groundwater supplies for Elephant Butte Irrigation District by Mr. Conover. This has been reviewed in Washington and officially approved for release to you and to the State Engineer.

Very truly yours,

/s/ Chas. V. Theis

Chas. V. Theis

District Geologist

cc/Chief Hydraulic Engineer, Washington, D. C.

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Preliminary memorandum on ground-water supplies for
Elephant Butte Irrigation District, New Mexico

By Clyde S. Conover
U. S. Geological Survey
September 1947

Reasons for investigation

A study of the ground-water supply of the Elephant Butte Irrigation District in the New Mexico portion of the Rincon and Mesilla Valleys of the Rio Grande was begun in 1946 by the U. S. Geological Survey in cooperation with the Elephant Butte Irrigation District, in response to a request from that District. The study was brought about by continued drought and indications that the Rio Grande Project of the Bureau of Reclamation, of which the Elephant Butte Irrigation District forms the New Mexico portion, would be seriously short of surface-water supplies. The amount of storage available to the Project had dropped to about 465,000 acre-feet by the second week of August 1947. Storage in Elephant Butte Reservoir on August 12, 1947, was 317,000 acre feet, the lowest on record for the 32 years of operation of the dam. The capacity of Elephant Butte Reservoir is 2,219,000 acre-feet and that of Cabello Reservoir 345,870 acre-feet. With another month of irrigation in 1947, the prospect of having the allowable supply of irrigation water in 1948 is poor if the drought conditions continue. The annual supply of water allowable to the Project under the terms of the Rio Grande Compact is 790,000 acre-feet,

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including 60,000 acre-feet that must be delivered to Mexico.

The U. S. Geological Survey was asked. to make a study of the possibilities of pumping ground water for irrigation, mainly from the standpoint of productiveness of wells and the effect of pumping upon the surface-water supply in the rivers and drains. Because of the imminence of some action regarding pumping, this preliminary memorandum is issued at this time.

* * *

that an aquifer saturated with water would yield by gravity and (2) its own volume.

The coefficient of transmissibility of the aquifer in the Rincon and Mesilla Valleys was determined from pumping tests on wells, and from the correlation of slopes of the water table to various drains with the flow of the drains. The value of the coefficient of transmissibility as determined from pumping tests on four wells in the valley floor ranged from a minimum of 91,000 to a maximum of 167,000. The value of the coefficient of transmissibility computed from well-profile cross-sections obtained from the U. S. Bureau of Reclamation across various lengths of six drains ranged from a minimum of 47,000 to a maximum of 135,000. Computations from data obtained from two lines of auger wells established across the Park Drain gave values for the coefficient of transmissibility ranging from a minimum of 53,000 to a maximum of 116,000.

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It seems probable that the average coefficient of transmissibility for the aquifer as a whole can be taken as about 75,000. The values of the coefficient of transmissibility for other localities in New Mexico in which irrigation pumping has been successful have ranged from about 50,000 to more than 100,000.

The specific yield of an aquifer is difficult to determine accurately, either in the field or the laboratory. Determinations of the specific yield in other localities of unconsolidated alluvial fill indicate that the average for the Rincon and Mesilla Valleys is probably about 25 percent.

Effects of pumping wells.—Pumping ground water results in a lowering of the water table, at first in the vicinity of the well but as time goes on at greater and greater distances from the well. The area affected by pumping continually expands until an area of rejected recharge or an area of groundwater discharge is reached. In many localities, areas of rejected recharge and ground-water discharge either do not exist or are at such great distances that the water pumped must be taken from storage for years to come with a continual lowering of the water table. All water pumped from wells is balanced by a loss of water from somewhere else in the ground-water system, either from the amount stored underground, from the amount seeping out of the aquifer, or, less commonly in arid countries, from the amount of surface water that the system is unable to absorb (rejects) because the aquifer is overfull under non-pumping conditions. Places of groundwater discharge in the Rincon and Mesilla Valleys are

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the drainage ditches, where lowering of the water table would result in a decrease in the pickup of the drains, and the relatively small areas of waterlogged land where a lowering of the water table would decrease the evaporation and transpiration now taking place. Areas of rejected recharge are sections of the river where the water level in the river is above and in direct contact with the ground water. A lowering of the water table in such areas induces a larger amount of water to seep away from the river.

The increased seepage from the river to the aquifer and the decreased drain flow resulting from the effects of pumping would not make more water available to the Project as a whole but instead would divert to the pumps water that would otherwise be available as surface supply lower down the valley. However, any water saved by pumping that is now lost by evapotranspiration in the waterlogged areas would result in an actual increase in water supply for beneficial use in the project. Unfortunately, because the waterlogged area of the Rincon and Mesilla Valleys is very only 5,135 acres being classified as seeped, and a portion of this is farmed, the amount of water saved would be small.

The effect of a pumping well upon the flow of a drain or of a river that is in direct connection with the water table can be evaluated theoretically with the aid of a formula developed by Theis. By using the average coefficients of transmissibility of 75,000 and specific yield of 25 percent determined for the Rincon and Mesilla Valleys, it is indicated that if a well in one of these

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valleys were located a quarter of a mile from a drain the flow of the drain would be reduced after 3 months of pumping by 63 percent of the pumping rate, after 6 months by 73 percent of the pumping rate, and after 1 year by 81 percent of the pumping rate. After 6 months of pumping the flow of a drain would be reduced by 88 percent of the pumping rate for a well located an eighth of a mile from the drain, by 73 percent for a well located a quarter of a mile from the drain, 50 percent by a well located half a mile from a drain, and 18 percent by a well located 1 mile from a drain. Fifty percent of the water pumped would be diverted from a drain in about 12 days by a well located an eighth of a mile from the drain but it would take about 2 years for a well located 1 mile from a drain to have the same effect.

The effect of the pumping upon the flow of the drain would initially be a reduction of the pickup of ground water by the drain in the area affected by the pumping. With continued pumping the gradient of the water table would be reversed and the drain would lose water in the section affected and finally, if the pumping rate were great enough, the drain would be dried in that section.

The average drain-flow accretion under the present conditions of an average surface supply of water is from 0.6 to 0.8 second-foot per mile in the late winter months, increasing to a little over 2 second-feet per mile of drain in the late summer. The pumping effect per mile of drain must be at least equal to the pickup of the drain per mile in order to dry the drain. Wells pumping continuously at the rate of 3 second-feet each

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and places every mile along a drain and a quarter of a mile from it would theoretically dry a drain in the summer under the present conditions of drain-flow at the end of about 4 months of pumping.

The theoretical effect of the pumping of a well upon the flow of a drain is possibly somewhat greater than would actually occur at any particular time because of clay layers that extend under the drains, which might introduce a lag in the effects of pumping. If a well were located between drains or between a drain and the river, the total effect of pumping upon the drains at any particular time would be greater than upon one drain. because of the numerous drains in the Rincon and particularly the Mesilla Valley this condition would occur and this accelerated effect of the pumping would probably offset the possible lag caused by the stratification of the aquifer.

Moreover, in a year of about 50-percent average surface supply of water, the flow of the drains would be reduced and the amount of pumping required to dry the drains would not be as large as noted.

Amount of pumped water necessary in a drought period.—The economy of a supplemental pumping project in the Elephant Butte District depends upon the quantity of water that must be pumped. This in turn depends upon how the gravity water in the Rio Grande Project is distributed to the various valleys, what economies could be effected in the distribution of the gravity supply, and what salvage of water would occur by reason of the lowered water table in a dry year. The

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basis of distribution might be in proportion to the average diversions, or in proportion to the average river depletions. It might be assumed that pumping would also be done in the El Paso District, and thus would save sale of the water which would otherwise drain from the land, thus saving more water for the Project; or the reverse might be assumed, in which case the Elephant Butte District may be regarded as having an obligation not to interfere with the deliveries of water to the lower district. Some water would be saved from evaporation by drying up the drains and some saved from evaporation by Lowering the water table in waterlogged areas. All these factors cannot be

* * *

Trial Exhibit NM-0210

RECLAMATION

Managing Water in the West

**Continued Implementation of the 2008
Operating Agreement for the Rio Grande
Project, New Mexico and Texas**

Final Environmental Impact Statement

[LOGO]

U.S. Department of the Interior

Bureau of Reclamation

Upper Colorado Region

Albuquerque Area Office, Albuquerque

* * *

**4 Overview of Rio Grande Project
Operations**

The Project provides surface water for irrigation in southern New Mexico, and for irrigation, municipal, and industrial uses in western Texas. It also provides for the delivery of surface water to the Republic of Mexico under the 1906 Convention (United States of America and Republic of Mexico 1906). The Project also provides hydropower generation as a secondary function.

Operation of the Project involves four primary functions:

- Capture and storage of Rio Grande streamflow in Elephant Butte and Caballo Reservoirs;

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- Allocation of Project water to EBID, EPCWID, and Mexico;
- Release of Project water to satisfy delivery orders from EBID, EPCWID, and the US IBWC on behalf of Mexico; and
- Diversion² of Project water from the Rio Grande and delivery³ of Project water to individual farms and municipal water treatment facilities for beneficial use.

In addition to these primary functions, Project operations include monitoring of river flows, diversions, and return flows at locations throughout the Project and accounting for charges and credits to Project allocation balances. The Project also provides flood control benefits, and Elephant Butte Reservoir serves as an accounting point for the Rio Grande Compact. Lastly, Reclamation allows storage of SJC Project water in Elephant Butte Reservoir under agreements with the Albuquerque-Bernalillo County Water Authority (Authority) and City of Santa Fe.

It should be noted that in addition to allocation, diversion, and delivery of Project surface-water to EBID, EPCWID, and Mexico, seepage and drainage water

² Throughout this document, the term *diversion* refers to specifically the withdrawal of Project surface-water from the Rio Grande into an authorized Project conveyance facility at its heading.

³ Throughout this document, the term *delivery* refers specifically to the withdrawal of Project surface-water from an authorized Project conveyance facility at a point of beneficial use (e.g., farm head gate or municipal water treatment plant intake).

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from Project lands in El Paso Valley is delivered to Hudspeth County Conservation and Reclamation District No. 1 (HCCRD)⁴. Because HCCRD only receives seepage and drainage water from EPCWID and does not receive a direct allocation of Project water, deliveries to HCCRD do not affect primary Project operations. The modeling and analysis described here therefore does not consider delivery to HCCRD.

The usable water available to the Project is determined according to the accounting procedures specified in the Rio Grande Compact. Project releases, diversions, and deliveries depend on the usable water available to the Project as well as water demands within the Project, and are subject to limits specified by various statutory controls.

From 1916 through 1979, Reclamation operated all aspects of the Project. Reclamation determined the annual allotment of Project water per acre of authorized land and delivered the annual allotment to farm gates. In 1979 and 1980, Reclamation entered into contracts

⁴ The United States and HCCRD entered into a Warren Act Contract in 1924, and amended in 1951, which provides for the use of Project Water by the HCCRD. The Warren Act Contract originally provided that “[t]he United States will deliver to [HCCRD] at the terminus of the Tomillo Main canal, during the irrigation season of 1925 and thereafter during each irrigation season as established on the Rio Grande project, such water from the project as may be available at said terminus *without the use of storage from Elephant Butte reservoir*” (emphasis added). The 1951 amendments to the Warren Act Contract added language specifying that the United States could deliver seepage or drainage water from land irrigated within the EPCWID, via canal, to HCCRD.

with EBID and EPCWID (collectively, the Districts), respectively, which transferred operation and maintenance responsibilities for Project conveyance and drainage systems to the Districts. Beginning in 1980, Reclamation determined annual diversion allocations to each district and delivered water to the respective authorized points of diversion; the Districts were then responsible for conveying water from the point of diversion to individual water users.

In the early 1980s, Reclamation developed a procedure to determine annual diversion allocations to EBID, EPCWID, and Mexico based on two linear regression relationships between Project releases and Project diversions and deliveries, respectively. The D-1 Curve is a linear regression relationship between annual Project releases from Caballo Dam and annual Project deliveries to lands within the US and to the heading of the Acequia Madre for diversion to Mexico. The D-2 Curve is a linear regression relationship between annual Project releases from Caballo Dam and annual gross Project diversions from river headings. Both relationships were developed based on Project operations data for the period 1951-1978 (inclusive).

During the period 1980-2007, annual Project diversion allocations to Mexico, EBID, and EPCWID were determined each year from the total amount of usable water in Project storage available for release during that year based on the D-1 and D-2 Curves. The D-1 Curve was used to estimate the total available annual delivery to Project lands in the United States and to the heading of the Acequia Madre from the usable water

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available for release; the D-2 Curve was used to estimate the total available annual diversion at Project diversion points from the usable water available for release.

Pursuant to the 1906 Convention, the annual allocation to Mexico during this period was 60,000 acre-feet (AF)/year, except under extraordinary drought conditions. During extraordinary drought conditions, Mexico received a diversion allocation equal to 11.3486% of the sum of the total quantity of water delivered to lands within the United States plus delivery to the heading of the Acequia Madre. Between 1939 and 2014, Project allocations and deliveries to Mexico were reduced in approximately 30% of years, including significant reductions in 2012, 2013, and 2014 (Congressional Research Service 2015). Annual diversion allocations to EBID and EPCWID were then calculated from the quantity of water available for diversion after delivery obligations to Mexico were fully satisfied. Calculation of the allocation to each district was based on the percentage of authorized acreage within each district, or 88/155ths [57%] of the estimated available annual Project diversion allocated to EBID and 67/155ths [43%] to EPCWID. Reclamation made adjustments to annual diversion allocations in some years as needed to optimize Project operations and meet Project needs in response to actual Project performance (i.e., actual quantity of water available for diversion under current-year hydrologic conditions). Reclamation informed both districts of any adjustment made to the annual allocation procedure.

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Beginning in 2008, Project operations have been carried out based on the procedures detailed in the Project OA (Reclamation et al. 2008) and corresponding Project Operations Manual (Reclamation et al. 2012). The OA is a written description of the procedures by which Reclamation operates the Rio Grande Project, including allocation of Project water to EBID, EPCWID, and Mexico; release of Project water from storage; delivery of Project water to authorized points of diversion; and accounting of allocation charges and credits. The Operations Manual further defines the procedures outlined within the OA for day-to-day operation of the Project. The OA and Operations Manual are reviewed annually and updated as needed to optimize Project operations consistent with applicable water rights, state and federal laws, and international treaties. Revision of the OA or Operations Manual requires unanimous consent of the Rio Grande Project Allocation Committee, which consists of one representative each from Reclamation, EBID, and EPCWID.

Operating procedures defined in the OA are largely consistent with prior operating practices during the period 1980-2007. The procedure used to determine the annual diversion allocation to Mexico is identical under the OA and prior operating practices. Similarly, the quantity of water available for diversion at Project diversion points each year is calculated from the estimated annual release of Project water according to the D-2 Curve, and the annual diversion allocations to EBID and EPCWID are calculated from the estimated

water available for diversion after delivery obligations to Mexico are fully satisfied.

Two key provisions of the OA, however, deviate from prior operating practices. First, the OA provides carryover accounting for the unused balance of annual diversion allocation to EBID and EPCWID. Under prior operating practices, annual diversion allocations were calculated based only on the estimated release of Project water for the current year; the unused balance of each district's annual diversion allocation, if any, was implicitly relinquished at the end of each calendar year. Under the OA, the unused balance of each district's annual diversion allocation, if any, is carried over and becomes part of the district's total diversion allocation the following year. The OA specifies that carryover balance may be accumulated by either district up to 60% of each district's respective full annual allocation, or up to 305,918 AF for EBID and 232,915 AF for EPCWID; carryover balance in excess of this limit is transferred to the other district. The carryover provision is intended to encourage water conservation within the Project by allowing each district to maintain its unused allocation balance up to a specified limit.

Second, the OA provides for adjustment of annual diversion allocations to EBID and EPCWID to account for changes in annual Project performance—i.e., changes in the amount of water actually available for diversion compared to the estimated available diversion based on the D-2 Curve. The OA represents Project performance using the diversion ratio, which is

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calculated as the ratio of total annual Project allocation charges to total annual Project release. The diversion ratio adjustment provision of the OA allows for adjustment of the annual Project allocations to EBID and EPCWID so as to maintain district diversion allocations to EPCWID at a level consistent with historical Project performance as represented by the D-2 Curve. When the actual diversion ratio is greater than the D-2 Curve, EBID receives an increase in annual allocation compared to prior operating practices; when the diversion ratio is less than the D-2 Curve, EBID receives a decrease in allocation. The diversion ratio adjustment provision of the OA therefore mitigates potential negative effects of changes in Project performance, which result predominately from the actions of individual landowners within EBID, by ensuring that Project allocations and deliveries to EPCWID remain consistent with historical Project performance.”

Project water accounting under the OA is consistent with water accounting under prior operating practices. Project water accounting involves the calculation of charges against the Project allocation balances of EBID, EPCWID, and Mexico, as well as credits to the allocations balances of EBID and EPCWID, consistent with each entity’s use of Rio Grande surface water. Allocation charges reflect the amount of surface water diverted from the Rio Grande, and allocation credits reflect the amount of water bypassed or returned to the Rio Grande and available for diversion at a downstream diversion point. In general, allocation charges are computed as the greater of the amount of

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water ordered for diversion at a specified diversion point and the amount of water actually diverted, whereas allocation credits are computed as the lesser of the amount of water ordered or bypassed at specified bypass points and the actual amount of water bypassed or returned to the Rio Grande. Dependence of allocation charges and credits on corresponding Project water orders promotes efficient operation of the Project by creating an incentive to divert all water ordered.

Specific exceptions to these general accounting procedures are summarized below.

First, charges to EBID and EPCWID for water diverted to Eastside and Westside Canals depend on whether one or both districts have ordered water. EPCWID receives water in Mesilla Valley as bypass from EBID via the Eastside and Westside Canal systems. If only EBID has ordered water, EBID is charged as described above. If both districts have ordered water, EBID is charged for water diverted at the canal heading as described above and is credited for water bypassed to EPCWID in addition to water bypassed to the Rio Grande. EPCWID is then charged for water received as bypass from EBID; EPCWID is credited for water bypassed to the Rio Grande from the Westside Canal system at a designated location on the La Union East Canal (Reclamation et al. 2008), which contributes to the water available for diversion downstream at American and International Dams. Lastly, if only EPCWID has ordered water, EPCWID is charged at

the canal heading, rather than at the district boundary, and is credited for water bypassed to the Rio Grande.

Second, charges to EPCWID for water diverted at American Dam for use in El Paso Valley are not determined at the heading of American Canal. For consistency with historical water distribution and accounting practices, charges are determined at four locations that receive water from American Canal: the intakes to the Umbenhaurer-Robertson and Jonathon W. Rogers water treatment facilities and the headings of Riverside and Franklin Canals. In order to promote maximal use of Project water available to the United States, EPCWID is encouraged to divert all flow reaching American Dam that is not allocated for delivery to Mexico. EPCWID is then charged for all water reaching the four accounting locations listed above, regardless of corresponding diversion orders. In the event that diversions to American Canal exceed the district's diversion order, EPCWID is credited for the unused portion of water diverted in excess of its order. Unused water in excess of EPCWID's order is computed by analysis of hydrographs of flow exiting the downstream end of the district.

Third, in addition to credit for water bypassed to the Rio Grande from the Eastside and Westside systems and for unused diversion in excess of its order at American Dam, EPCWID receives a credit towards their Project allocation balance for water savings associated with construction of the American Canal Extension. The original American Canal, completed in 1938, conveys water from American Dam approximately two

miles south to Franklin Canal; the American Canal Extension, completed in 1998, carries water from the original terminus of the American Canal approximately 12 miles further south to Riverside Canal. Historically, water was diverted from the Rio Grande to Riverside Canal at Riverside Dam. The American Canal Extension is concrete lined and provides for surface-water savings through reduced seepage losses compared to historical conveyance in the Rio Grande and diversion of water at Riverside Dam. The annual credit towards EPCWID's allocation balance for water savings from the American Canal Extension is calculated based on annual flow in the American Canal.

Lastly, in the event that only one district or Mexico has ordered water, the charge against that entity's Project allocation balance is equal to the greater of the amount of water released from Caballo Dam or the amount of water diverted at the specified diversion point(s).

In addition to storing and releasing water for the Project, Reclamation also allows storage of SJC Project water in Elephant Butte Reservoir. In 1983, Reclamation and the Authority entered into a 25-year agreement (Contract No. 3-CS-5301510) to allow the Authority to store up to 50,000 acre-feet of water in Elephant Butte Reservoir. The amount accounted as non-Project inflow to Elephant Butte Reservoir is equal to the amount released from upstream minus agreed-upon transport losses for the conveyance of non-Project water to the reservoir, unless that water was moved downstream for reasons that benefit Reclamation (such as to support riverine habitat for

endangered species). The amount accounted as non-Project water stored by the Authority is then calculated as the Authority's previous non-Project storage, plus non-Project inflows, and minus evaporation of non-Project water from storage.

The 1983 agreement between Reclamation and the Authority expired in 2008. Since then, water storage in Elephant Butte Reservoir by the Authority has been managed under annual contract extensions, with the intent to execute another long-term agreement. Current storage is under an extension that allows storage through February 2016, ending on March 1, 2016.

In recent years, the City of Santa Fe (City) has also stored water in Elephant Butte, first under a sublease to the Authority's agreement, and then under annual agreements of its own. Since the spring of 2014, Santa Fe has not had water in Elephant Butte. The City has not requested future storage.

* * *

Trial Exhibit NM-0571
HISTORICAL ABSTRACT REGARDING
ELEPHANT BUTTE IRRIGATION
DISTRICT'S CONJUNCTIVE MANAGEMENT

[LOGO]

* * *

Groundwater Wells

Groundwater wells, as they are known today, were not an early part of the Project. High efficiency turbine pumps were developed in the late 1930s and perfected during World War II. Elephant Butte Dam filled, and spilled, for the first time in its history in 1942. Immediately after the spill, the area began to experience drought conditions. By 1946, after experiencing low water supplies in the river, the EBID Board sought to investigate whether or not there was sufficient groundwater contained in the aquifers of the Rio Grande Valley to support groundwater pumping as a supplemental source of supply for the farmers [Minutes of June 19, 1946, Exhibit 3] The Board began negotiations with the United States Geological Service (U.S.G.S.) to participate in a cooperative survey to determine “whether or not there is an existence of groundwater supply that is accessible, is of proper quality, and that exists in sufficient quantity, to justify pumping operations on a large scale” [EBID Minutes of June 19, 1946, Exhibit 3; July 11, 1946 letter from John Gregg to C. V. Theis and Theis’ July 25, 1946 reply, Exhibit 7] In addition to partially funding this study, the Board agreed to pay for constructing five

groundwater “test wells” to be “. . . drilled specifically for irrigation purposes in order to obtain information concerning ground water supplies and the effect of pumping operations on them”. [Minutes of January 7, 1947, Exhibit 3] The Board was continuously updated throughout the 1947 and 1948 years regarding the status of the U.S.G.S. investigation and “. . . the feasibility of pumping direct into canals and laterals for the purpose of distributing water to lands. The volume of carriage losses in connection with such a project, together with the possible effect of extensive pumping operations upon groundwater levels and drain return flows . . .”. [Minutes of August 5, 1947, Exhibit 3; Letters of June 24, 1947 and January 27, 1948, Exhibit 8]

In October of 1947, the Board received the preliminary version of the Conover Report from the U.S.G.S. as drafted by engineer C. S. Conover, and reviewed and approved by his superior C. V. Theis. In summary, this extraordinary report concludes as follows:

- Groundwater obtained by pumping in the Rincon and Mesilla valleys does not represent an additional supply or new source of water, but rather a change in method, time, and place of diversion of the supplies already utilized. [**Conover Report, at 10**]
- Successful irrigation wells can be obtained under the major portion of the valley floors of the Rincon and Mesilla valleys.
- The drought condition that existed in the 1940s resulted in a shortage of surface water supplies and gave the impetus to drilling of irrigation wells

in the valley floors of the Mesilla and Rincon valleys.

- That there is a direct correlation between pumping groundwater wells and reduction in drain flows in both valleys.
- That the quality of the shallow groundwater in the alluvium of the Rincon and Mesilla valleys is slightly poorer than drain water, but is satisfactory for most irrigation requirements.

As a concluding note, Conover and Theis stated the continuous monitoring of the groundwater conditions and the drain flows was recommended because “water pumped by wells in the Rincon and Mesilla valleys is not an additional or new supply, but rather part of the Project supply . . .”. Attached hereto and made a part hereof by reference as Exhibit 6 is the Transmittal Letter to John Gregg, Cover Sheet, Abstract, and Index of the Conover Report. The Conover-Theis report was finalized by the U.S.G.S. on October 30, 1950.

By the time that the U.S.G.S. groundwater study (Conover Report) was published in 1950, the Rio Grande Valley was in the throes of the worst drought in memory. Irrigation supplies of Rio Grande Project water continued to diminish into the 1950s and the EBID Board, based on the U.S.G.S. report, began to develop a plan to allow farmers to share Project water and pumped groundwater among constituents in an effort to keep farming alive in the Rio Grande Valley of New Mexico. In December of 1947, the EBID Board discussed “the question of permitting the transfer of

water from one owner to another, or from one tract to another tract. . .”. The Board requested an opinion from its attorney, former judge Edwin Meechem, confirming that the Board had authority to permit such transfers. [Minutes of December 5, 1947, Exhibit 3]

Farmers in the valley began to install irrigation pumps and the Board of Directors, based upon the U.S.G.S./Conover Report, began to actively promote the drilling of wells and the sharing of water among its constituent members. [See Exhibit 3, Minutes from 1951-1956] On June 1, 1951 the Board of Directors, in recognition of the ongoing drought, began to “encourage well owners to use their wells to supply requirements for water in excess of one acre foot. Such water might thereupon become available for delivery to non-well owners.” The issue was debated and the Board requested a legal opinion from its counsel [Minutes of June 1, 1951, Exhibit 3]

Although the opinion of counsel has not been found, it must have been favorable to the idea because, on September 17, 1951, the Board appointed a committee of its members to investigate “. . . the advisability of encouraging small water users who are so located on laterals that they could be served by cooperative wells pumping into these laterals. . .”. [Minutes of September 21, 1951, Exhibit 3] In November, 1951 the Bureau of Reclamation reported to the EBID Board regarding the operation of these irrigation wells for the 1951 crop year. “The total number of acre feet reported by the Bureau as pumped was 99,040.” [Minutes of November 29, 1951, Exhibit 3] The Board received the Bureau’s

report regarding the same subject, which report also commented on the effect of these irrigation wells on the Project. [Id.] The Board passed a resolution at that meeting directed to the Secretary of Interior which stated as follows:

“The Secretary of Interior is probably aware of the grave water shortage that confronts the Rio Grande Project (New Mexico/Texas) and of the inevitable consequences of such shortage in terms of crop reduction, financial loss, and human suffering. Because of the almost complete exhaustion of its surface water supply, the Rio Grande Project will face, in 1952, the most critical situation that has ever confronted the Project. The present outlook is that, at the beginning of the 1952 irrigation season, groundwater will be the only substantial source of water supply available and such water will not be readily available to many small farms that are unable to make the investment necessary to drill and equip irrigation wells.” [Id.]

In response to the Irrigation District’s inquiries, the Bureau of Reclamation issued licenses allowing the transport of groundwater in District canals and laterals upon obtaining a license from the Bureau to do so. [Minutes of July 11, 1952 and the “Sample License” attached, Exhibit 9] The Bureau was cautious, however, stating that the water pumped from these irrigation wells “may constitute a part of the Rio Grande Project water supply and nothing herein contained shall be construed as an admission on the part of the

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United States that said water is the property of the Licensee or, as a waiver of any right or claim to such water as a part of the Rio Grande Project supply.” [Minutes of July 11, 1952, Exhibit 3]

In October, 1952 the Board of Directors hired a consulting engineer “specializing in ground water matters”. After discussion, the Board authorized Samuel F. Turner of Phoenix, Arizona to prepare a report discussing the Bureau of Reclamation’s analysis of carriage loss issues associated with well pumping in the Mesilla and Rincon Valleys. [Minutes of October 7, 1952, Exhibit 3]

By the Spring of 1951, the Bureau of Reclamation began issuing formal statements to the water users “. . . concerning the current water situation”, a practice they continued through the drought. [Minutes of March 5, 1953; Exhibit 3; and Sample Water Announcements attached collectively as Exhibit 10] This was reported at subsequent Board meetings and the Announcements were reported in the local newspapers and advertised by the District Board. [Minutes of April 17, 1953, Exhibit 3; and Newspaper Articles attached collectively as Exhibit 11] This matter remained a subject of discussion as the drought continued. [Minutes of May 29, 1953 and Minutes of March 3, 1954, Exhibit 3] Each year as the drought continued, the Board renewed its requests of constituent members to transfer water among tracts and to make well water available to constituents who did not have access to groundwater. [See, for example, Minutes of March 9, 1955 and Minutes of June 29, 1956, Exhibit 3] The matter of

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keeping the irrigation district viable by accessing groundwater and sharing groundwater and surface water supplies, was reported by the local newspapers with great regularity. [Exhibit 12]

As the pumping continued, the Board continued to remain interested in the hydrology of the area and received a report in April of 1956 from the Bureau of Reclamation informing them that test well data had showed that groundwater levels in the Mesilla Valley had declined an average of 4.30 acre feet between January 1950 and January 1956 based upon the Bureau's test well data. [Minutes of April 5, 1956, Exhibit 3]

By 1960, the severity of the drought began to subside due to increased surface water supplies and hundreds upon hundreds of groundwater wells that were now accessing the groundwater that was related to the Rio Grande.

The above summary of EBID's efforts over time on behalf of its constituents to access groundwater supplies is a continuation of the policies begun when the drains were dug into the valley to, in effect, conjunctively manage the ground and surface water supplies in an effort to assure as much water as possible to each and every one of its constituents.

* * *

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Trial Exhibit NM-1061

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

OFFICE OF THE SPECIAL MASTER

**UNITED STATES OF AMERICA'S
RESPONSES TO NEW MEXICO'S SECOND
SET OF REQUESTS FOR ADMISSION**

JEFFREY B. WALL
Acting Solicitor General
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Counsel for the United States

* * *

REQUEST FOR ADMISSION No. 82: Admit HCCRD has no contractual right to minimum delivery of any set amount of water in any year.

ANSWER. The United States objects to Request for Admission No. 82 because it seeks to admit the truth of a legal conclusion, *see* Fed. R. Civ. P. 36(a)(1)(A), and because the request does not specify the contract(s) or “water” to which it is referring. Subject to that objection, the request is admitted in part. The United States admits that HCCRD’s Warren Act contract does not include a minimum delivery provision. The United States has made a reasonable inquiry and the information it knows or can readily obtain is insufficient to enable it to admit or deny the request as it pertains to any other contract.

REQUEST FOR ADMISSION No. 83: Admit that the D2 Curve was devised by the Bureau of Reclamation using release and delivery data from, among other sources, “Water Delivery Reports” for the period 1951-1978.

ANSWER. The United States objects to Request for Admission No. 83 because the term “devised” is vague and ambiguous, and the term “Water Delivery

Reports” is not defined. Subject to these objections, the request is admitted in part and denied in part. The United States admits that the D2 Curve was developed by the Bureau of Reclamation based on, among other things, release and delivery data from water distribution reports. The United States denies that the data came from “Water Delivery Reports.”

REQUEST FOR ADMISSION No. 84: Admit that Reclamation devised the D2 Curve to provide a formula to allocate Project water so that after approximately 1980 the Districts would receive at their canal diversions an equivalent amount of water as they had previously received when Reclamation was allocating equal allotments of water to each Project acre.

ANSWER. The United States objects to Request for Admission No. 84 as vague, overbroad, and compound, in numerous respects. Subject to that objection, the request is admitted in part and denied in part. The United States admits the D2 Curve has been used in determining Project diversion allocations to EBID and EPCWID since approximately 1985. The United States denies the remainder of the request.

REQUEST FOR ADMISSION No. 85: Admit that, except in cases of actual or hypothetical spill from Project storage, Reclamation caps annual releases of water from the Project at 790,000 acre-feet.

ANSWER. Deny.

REQUEST FOR ADMISSION No. 86: Admit that, in the period from 1940 to 1950, water users in Texas

diverted or otherwise used return flows derived from the use of Project water appearing in Project drains within the El Paso Valley.

ANSWER. The United States objects to Request for Admission No. 86 because it is vague, ambiguous, and overbroad. In particular the terms “otherwise used,” “derived,” “return flows” are vague and undefined, and the terms “water users in Texas” and “within the El Paso Valley” are overbroad. Subject to these objections, the request is admitted in part and denied in part. The United States admits that between 1945 and 1984, water users in EPCWID sometimes diverted water from the River Drain into the Riverside Canal Extension, and the water may have included flows resulting from the application of Project water to lands in EPCWID. The United States denies the remainder of the request and specifically denies that every such diversion necessarily included flows that otherwise would have returned to the Rio Grande for re-diversion by Project water users downstream.

REQUEST FOR ADMISSION No. 87: Admit that, in the period from 1940 to 1950, water users in Texas diverted or otherwise used, within the El Paso Valley, municipal effluent derived, in whole or in part, from the use of Project water.

* * *

Trial Exhibit NM-2097

**THE HISTORY OF INTERSTATE WATER
USE ON THE RIO GRANDE: 1890-1955**

/s/ Jennifer Stevens

Stevens Historical Research Associates

* * *

Drought: The Role of Groundwater for Irrigation

As referenced above, the Upper Rio Grande Basin and the entire Southwest region was hit by a serious drought that began in 1946, accelerated in the winter of 1946-1947, and lasted well into the 1950s. Water users soon recognized the severity of the situation and wondered how they would obtain enough water for their crops. While the Compact had anticipated years of water shortage, the document did not have any insights into how groundwater could be used in such severe situations. Without any official guidance on how to supplement Rio Grande water supplies when supplies throughout the entire upper basin ran low, the districts sought new investigations. The 1935-36 (and ongoing) El Paso groundwater study offered inspiration.

In 1946, EBID followed the City of El Paso's lead and requested that the USGS study the groundwater supply in the Rincon and Mesilla Valleys.⁹⁴ Anticipation

⁹⁴ Clyde S. Conover, "Preliminary Memorandum on Groundwater Supplies for Elephant Butte Irrigation District" (United States Geological Survey, September 1947), Counsel; Clyde S. Conover, "Chas V. Theis, District Geologist, to Mr. John L. Gregg,

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of continued drought was the driving force behind the study, demonstrated by storage levels as low as 317,000 acre-feet in Elephant Butte in August 1947. With another month of irrigation remaining in the season, water users' concerns about supplies for the following season were heightened, and they hoped that groundwater might supplement their surface supplies. To answer the district's questions, the USGS's Clyde Conover conducted a series of investigations in EBID between 1946 and 1947.⁹⁵

Following a year of study, Conover issued a preliminary memorandum at the conclusion of studies. In it, he remarked that the primary objective of his research was to investigate groundwater, "mainly from the standpoint of productiveness of wells and the effect of pumping upon the surface-water supply in the rivers and drains."⁹⁶ Conover had examined "the quantities involved in the present irrigation with surface water exclusively" in order to fully understand the effects of groundwater pumping in the Mesilla and Rincon Valleys.⁹⁷ In his findings, Conover made several important points that affected future water use in the region. First, he recognized that more water was applied to crops than they consumed and asserted that the amount of water applied to the land in past years was

Manager, Elephant Butte Irrigation District" (United States Geological Survey, October 23, 1947), Counsel.

⁹⁵ Conover, "Preliminary Memorandum on Ground-Water Supplies for Elephant Butte Irrigation District," 1.

⁹⁶ Conover, 1.

⁹⁷ Conover, 3.

“doubtless more than actually necessary, even though irrigation of crops requires an excess of water applied.”⁹⁸ Second, Conover described the connections between surface and groundwater, noting that any surface water released from Caballo Dam that was not lost by transportation or evaporation, seeped underground “from the canals and irrigated lands to return to the river as drain flow.”⁹⁹ The over-irrigation of Project lands and the relationship between surface and groundwater in irrigation systems that Conover elucidated would play important roles in future water negotiations.

As far as groundwater use was concerned, Conover remarked that of the many operational wells that had existed in the Mesilla Valley in the early 1900s, “very few” of these remained in operation.¹⁰⁰ Most of them had been abandoned “after a water supply was assured by Elephant Butte Dam.”¹⁰¹ However, Conover reported that in recent months, “a few irrigation wells” had been drilled due to the “contemplated shortages of water in 1948,” although none of them had pumps installed at the time he wrote this memo.¹⁰² Whether or not these wells – when engaged – would have a long-term effect on surface supplies, Conover concluded pumping would lower the water table, “at first in the vicinity of the well,” but as time went on, “at greater and greater

⁹⁸ Conover, 6.

⁹⁹ Conover, 8.

¹⁰⁰ Conover, 9.

¹⁰¹ Conover, 9.

¹⁰² Conover, 9.

distances from the well,” explaining that “all water pumped from wells” was “balanced by a loss of water from somewhere else in the ground-water system, either from the amount stored underground, from the amount seeping out of the aquifer, or, less commonly in arid countries, from the amount of surface water that the system is unable to absorb (rejects) because the aquifer is overfull under non-pumping conditions.”¹⁰³ In other words, Conover concluded that pumping ground-water would only provide a small amount of net additional water to the Project as a whole, with water being diverted “to the pumps that would otherwise be available as surface supply lower down the valley.”¹⁰⁴

Despite these conclusions, however, Conover seemed to advocate for pumping as a short-term solution to the drought issue, a conclusion with which Reclamation agreed. Conover recognized that pumping would have the effect of drying out the drains of return flow, but also found that less waste (through transportation and evaporation) would be realized by pumping than through surface deliveries, at least a 10% savings, which was not insignificant during drought years.¹⁰⁵ In fact, Conover also concluded that *in years where surface water levels were only at 50% of the average supply*, he believed it would “*be necessary to pump some ground water.*”¹⁰⁶ [Emphasis added.] Assuming that EPCWID

¹⁰³ Conover, 12–13.

¹⁰⁴ Conover, 13.

¹⁰⁵ Conover, 16.

¹⁰⁶ Conover, 7.

also engaged in pumping for irrigation, he explained, such an effort would “save some of the water which would otherwise drain from the land, thus saving more water for the Project.”¹⁰⁷ Conover recognized that the “pumping of wells would diminish the drain flow,” which would necessitate a corresponding decrease in the allowable diversions for the Elephant Butte Irrigation District¹⁰⁸ but this did not dissuade him from his recommendation that pumping serve as a short-term drought solution.

In September 1947, Conover’s USGS colleague Charles V. Theis sent a copy of Conover’s preliminary findings to A.N. Sayre, the geologist in charge of the USGS groundwater division in Washington, D.C. This was the same man who had studied the City of El Paso’s municipal groundwater use in the 1930s and early 1940s. Theis explained to Sayre that it was immediately necessary to release Conover’s preliminary findings so that New Mexico’s state engineer and EBID could “establish a policy” with regard to pumping, before “the situation gets out of hand.”¹⁰⁹ With Sayre’s approval, the USGS complied and sent the preliminary findings to the Project with a cautionary note explaining that detailed findings might differ in later reports. New

¹⁰⁷ Conover, 15.

¹⁰⁸ Conover, 16.

¹⁰⁹ “Chas. V. Theis, District Geologist, to Mr. A. N. Sayre, Geologist in Charge, Division of Groundwater,” September 10, 1947, R.G. 57, Records of the Geological Survey Entry 575, Ground Water Branch, Administrative Correspondence, 1944-1954, Box 33, New Mexico, Albuquerque 1947, U.S. National Archives, II.

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Mexico State Engineer John Bliss also received a copy of the findings in October 1947.¹¹⁰

Despite the USGS's cautionary note, the Bureau of Reclamation took on the burden of working with Project farmers during times of shortage, encouraging them to be thrifty in their surface water applications but also to pump as a way to supplement limited surface supplies. During the 1947 irrigation season, Reclamation provided a packet for Project land owners, farmers, and irrigation districts called "Conservation in the Use of Irrigation Water: Principles and Practices to be Observed and Followed in the Control, Distribution, and Use of the Irrigation Water Supply for its Conservation and Maximum Production Results." One section of this packet, "Explanation of Principles for Conservation in the Use of Irrigation Water," explained to farmers the connection between irrigation, groundwater, and drainage, and warned farmers not to over irrigate, as "a limited portion of the water applied to the land must percolate on through the soil and by eventually making its way to the drains, provides the circulation needed to prevent the accumulation of alkali salts on the surface." The packet continued, "if excess water reaches the ground water table faster than it can escape to the

¹¹⁰ "Chas. V. Theis: District Geologist, to Mr. John H. Bliss: State Engineer of New Mexico," October 23, 1947, R.G. 57: Records of the Geological Survey, Entry 575, Ground Water Branch, Administrative Correspondence, 1944-1954, Box 33, New Mexico, Albuquerque 1947, U.S. National Archives, II.

drains, the water table rises resulting in seepage and alkali surface conditions.”¹¹¹ Three years later, as the drought continued and conservation proved inadequate for its severity, Reclamation reported that if drought conditions continued, “pumping appears to be the most feasible for a short time” as a remedy.¹¹²

As the drought continued and Reclamation reduced annual per-acre water allotments from storage water, Reclamation tracked well data and encouraged farmers to continue the practice of supplemental pumping. Between 1951 and 1955, dwindling storage supplies in Elephant Butte led Reclamation to declare annual allotments ranging from just a few inches per acre to 2.5 acre-feet per acre so that all Project lands would receive an equal amount, but well below the 3.1 acre-feet needed by farmers for a successful crop. In 1951, the Rio Grande Project Manager told water users who were able to supply their water needs via pumping to arrange transfer of part of their unused allotment to those who needed more water.¹¹³ Many of these users

¹¹¹ “Conservation in the Use of Irrigation Water: Principles and Practices to be Observed and Followed in the Control: Distribution, and Use of the Irrigation Water Supply for its Conservation and Maximum Production Results” in U.S. Bureau of Reclamation, “Project History: Rio Grande Project, Calendar Year 1947,” n.d., 78, NM OSE Library.

¹¹² U.S. Bureau of Reclamation, “Project History: Rio Grande Project, Calendar Year 1950,” n.d., 44, NM OSE Library.

¹¹³ L.R. Fiock, Project Manager, “Water Announcement: August 1, 1951” in U.S. Bureau of Reclamation, “Project History: Rio Grande Project, Calendar Year 1951,” n.d., 100, NM OSE Library.

clearly took his advice to heart. The following year, in 1952, Reclamation reported that “1952 proved to be an excellent crop year for irrigation farmers” on the Ysleta branch (in EPCWID), because although storage was at a mere 10% of normal at the season’s beginning, farmers had installed 220 wells during the 1950 and 1951 seasons, ‘which provided the necessary early water.’¹¹⁴ In 1955, the most severe season to date, the Project operated on a fluctuating allotment basis of five inches, but farmers supplemented their supply with 1650 wells, and the Bureau encouraged them to continue doing so.¹¹⁵ Pumping was a way that the Bureau urged the farmers with wells to “help their neighbors” who were unable to dig wells.¹¹⁶ By this time, with the drought extending to years, Conover’s connections between ground and surface water and his encouragement to limit the amount of pumping seemed long forgotten and there was nothing to limit the use of the water of the Rio Grande that lay beneath the surface. But the appointment of Steve Reynolds to State Engineer in 1955 – a post he would hold for more than 30 years – altered the groundwater system in New Mexico

¹¹⁴ U.S. Bureau of Reclamation, “Project History: Rio Grande Project, Calendar Year 1952,” n.d., 56, NM OSE Library.

¹¹⁵ U.S. Bureau of Reclamation, “Project History: Rio Grande Project, Calendar Year 1955,” n.d., 5, NM OSE Library.

¹¹⁶ W. F. Resch, Project Manager, “Water Announcement: June 21, 1954) in U.S. Bureau of Reclamation, “Project History: Rio Grande Project, Calendar Year 1954,” n.d., no page visible, NM OSE Library.

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with his focus on groundwater basin declarations and regulations.

* * *



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Trial Exhibit NM-2119

October 4, 1938

Mr. Sawnie B. Smith,
Edinburg, Texas

Dear Mr. Smith:

This will acknowledge receipt of your letter of September 29.

The question of where the point of division of the waters of the Rio Grande as between Texas and New Mexico should be fixed has been the subject of a great deal of study ever since the original Rio Grande Compact Act was passed, in 1928. It was decided prior to the signing of the temporary compact that New Mexico's obligations as expressed in the compact must be with reference to deliveries at Elephant Butte reservoir, and this provision was inserted in the temporary compact. The reasons for it are numerous. In fact, the obstacles in the way of providing for any fixed flow at the Texas line were considered insuperable.

The Rio Grande Project, as you know, is operated as an administrative unit by the Bureau of Reclamation, and the dam and releases from the reservoir are controlled by the Bureau and will continue to be at least until the federal government is repaid its investment, and very probably even beyond that time. Obviously, neither Colorado nor New Mexico could be expected to guarantee any fixed deliveries at the Texas line when the operation of the dam is not within their

control but is in the control of an independent government agency.

Moreover, measurements of the waters passing the Texas state line would be very difficult and expensive, if not impossible. This, for the reason that irrigation canals, ditches and laterals cross the line, which is of a very irregular contour, at many different points, carrying water in addition to what is carried in the river, itself, and it would require continual measurements in those various channels to make any reasonably accurate computations of the total flow.

However, the question of the division of the water released from Elephant Butte reservoir is taken care of by contracts between the districts under the Rio Grande Project and the Bureau of Reclamation. These contracts provide that the lands within the Project have equal water rights, and the water is allocated according to the areas involved in the two States. By virtue of the contract recently executed, the total area is "frozen" at the figure representing the acreage now actually in cultivation: approximately 88,000 acres for the Elephant Butte Irrigation District, and 67,000 for the El Paso County Water Improvement District No. 1, with a "cushion" of three per cent. for each figure.

I apprehend that there will never be any difficulty about the allocation of this water.

The arrangement just mentioned is of course a private one between the districts involved, and for that reason it was felt neither necessary nor desirable that it be incorporated in the terms of the Compact.

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The lands above Fort Quitman and below the Rio Grande Project eastern boundary receive only "tail-end" or waste water, the lands in the Hudspeth County district taking its water by virtue of a contract and the lands privately owned below the district lower boundary only by taking by gravity or pumps what happens to be in the river channel.

The deliveries to Mexico are of course governed by treaty.

I trust this is the information you desire but if there is any other which I can supply, please feel free to call upon me.

With best regards personally, I am

Yours sincerely,

Frank B. Clayton
Rio Grande Compact Commis-
sioner for Texas

Trial Exhibit NM-2373
OPERATING AGREEMENT
FOR THE RIO GRANDE PROJECT

THIS OPERATING AGREEMENT (“Agreement”) is entered into this 10th day of March, 2008, by and among the United States of America, by and through the Bureau of Reclamation (“United States” or “Reclamation” or “USA”) acting pursuant to the Reclamation Act of June 17, 1902, 32 Stat. 390, as amended and supplemented; the Elephant Butte Irrigation District (“EBID”), an irrigation district and a quasi municipal corporation in the State of New Mexico, incorporated and organized under New Mexico law, N.M.S.A. 1978, § 73 10 1 et seq. (1985 Repl, Pamp.); and the El Paso County Water Improvement District No. 1 (“EPCWID”), a political subdivision of the State of Texas, under Art. XVI, § 59 of the Texas Constitution (collectively, “the Parties” to this Agreement).

NOW THEREFORE, the Parties recognize the following terms and conditions to constitute an operational plan for the Rio Grande Project and the Parties agree as follows:

1 DEFINITIONS

When used in this Agreement, unless otherwise distinctly expressed or manifestly incompatible with the intent hereof, the following definitions shall apply:

1.1. Normal Annual Release

A Normal Annual Release from Project Storage for all authorized uses is 790,000 acre-feet as measured at the first gauging station downstream of Caballo Dam. It is possible that during any Water Year the aggregate quantity of water released for EBID and EPCWID, and for the United States (pursuant to the Convention of 1906), including release of Carryover Water for EBID and EPCWID, may be more or less than the Normal Annual Release from Project Storage of 790,000 acre-feet.

1.2. Project-Authorized Acreage

There are 159,650 authorized acres within the Project. Of the Project Authorized Acreage, 90,640 acres are within EBID and 69,010 acres are within EPCWID.

1.3. Project Storage

Elephant Butte Reservoir, Caballo Reservoir, and such additional storage facilities (less flood control space) as may be authorized by Congress or provided for pursuant to the Rio Grande Compact (Act of May 31, 1939, 53 Stat. 785).

1.4. Rio Grande Project

The Project was authorized by an Act of Congress on February 25, 1905, 33 Stat. 814, pursuant to the Reclamation Act of 1902, 32 Stat. 390. The Project includes facilities and works with their appurtenant

lands authorized by the Act of February 25, 1905, as amended and supplemented, particularly Elephant Butte Dam and Reservoir, Caballo Dam and Reservoir, a power generating plant, and six diversion dams (Percha, Leasburg, Mesilla, American, International, and Riverside) on the Rio Grande in New Mexico and Texas, and includes the Project lands and service area authorized for water delivery pursuant to the Rio Grande Project Act of February 25, 1905, as amended and supplemented and the Reclamation Act of 1902 as amended and supplemented.

1.5. Water Year

The water year shall be a calendar year beginning on the first day of January and ending on the thirty-first day of December.

1.6. Project Water

Project Water, as used herein, shall mean: 1) usable water in Project Storage; 2) all water required by the Rio Grande Compact of 1938 to be delivered into Elephant Butte Reservoir; and 3) all water released from Project Storage and all inflows reaching the bed of the Rio Grande between Caballo Dam, New Mexico and Fort Quitman, Texas.

1.7. Annual Allocated Water

Annual Allocated Water is the quantity of Project Water that is determined by United States, in accordance

with this Agreement, the Operations Manual, and in consultation with EBID and EPCWID, to be allocated each Water Year for delivery to EBID and EPCWID, and to the United States (pursuant to the Convention of 1906).

1.8. Carryover Water

Carryover Water is the Annual Allocated Water allotment balance remaining on the water account for each district at the end of a given Water Year. EBID and EPCWID shall have the right to carry over any amount of their respective Annual Allocated Water subject to provisions of Section 1.10 herein.

1.9. Actual Carryover Water

Actual carryover water is the increase in a district's allocation due to applying carryover water amounts for each district in the allocation calculations.

1.10 Carryover Limit

Actual carryover water may be accumulated in an account for each district to a maximum of sixty percent (60%) of each district's respective full yearly allocation or an amount of actual carryover water equal to 232,915 acre-feet for EPCWID and 305,918 acre-feet for EBID.

1.11 Excess Carryover Balance

At the end of the water year, either district's carryover balance in excess of its respective carryover limit shall be transferred to the carryover account of the other district. If both districts' carryover limits are exceeded, each district's carryover balance shall be equal to its respective limit.

1.12 Rio Grande Project Water Accounting and Operations Manual (Operations Manual)

The United States, EBID, and EPCWID shall produce an Operations Manual. The Operations Manual shall contain detailed information regarding the methods, equations, and procedures used by EBID, EPCWID, and the United States to account for all water charges and operating procedures for the Rio Grande Project. This Agreement shall be effective upon execution regardless of the status of the Operations Manual.

1.13 Non-Allocated Water

Project Water is available for diversion from the Rio Grande by EBID or EPCWID that is not charged by the United States against any allocation account. Non-Allocated water is typically available only during periods when no water is being released from storage or during flood events.

2. ALLOCATION OF PROJECT WATER

2.1. Use of Project Water

All Project Water in Project Storage, including any actual Carryover Water shall be used for the authorized purposes set forth in the Reclamation Act of June 17, 1902, 32 Stat. 390, and the Rio Grande Project Act of February 25, 1905, 33 Stat. 814, as amended and supplemented.

2.2. Determination of Project Water in Project Storage

At the beginning of each Water Year and during each month of the Water Year, The United States shall determine the total quantity of Project Water in Project Storage.

2.3. Determination of Annual Allocation to Mexico, EBID, and EPCWID

The United States shall determine the quantity of Annual Allocated Water to Mexico, EBID, and EPCWID by the first of December for the following Water Year utilizing the Project Water in storage amounts and Carryover Water amounts for each district. The United States may reconsider the Annual Allocated Water each month during a Water Year and adjust it as necessary in consultation with EBID and EPCWID in accordance with this Agreement.

2.4. Annual Allocation for United States for delivery to Mexico

The portion of the Annual Allocated Water which shall be allocated for the United States to meet its obligations pursuant to the Convention of 1906 shall be 11.3486 percent (11.3486%) of the sum of the quantity of Project Water delivered to lands in the United States plus the quantity of Project Water delivered to the head works of the Acequia Madre in acre-feet per Water Year as set forth in equation 2-1 and Table 1 that follow:

$$Y = 0.8260932 (X) - 102,305 \quad (2-1)$$

where X =Annual Released Water (in acre-feet per Water Year), and Y = sum of the quantity of Project Water delivered to lands in the United States plus the quantity of Project Water delivered to the head works of the Acequia Madre (in acre-feet per Water Year).

Table 1

Annual Amount of Water Released from Caballo Reservoir (ac-ft/acre)	Sum of the quantity of Project Water delivered to lands in the United States plus the quantity of Project Water delivered to the head works of the Acequia Madre (in acre-feet per Water Year).	Quantity of Project Water delivered to the head works of the Acequia Madre (in acre-feet per Water Year).
790,000	550,309	60,000
763,842	528,700	60,000

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700,000	475,960	54,015
650,000	434,656	49,327
600,000	393,351	44,640
550,000	352,046	39,952
500,000	310,742	35,265
450,000	269,437	30,577
400,000	228,132	25,890
350,000	186,828	21,202
300,000	145,523	16,515
250,000	104,218	11,827
200,000	62,914	7,140

The United States shall be entitled to release all or such portion of the Annual Allocated Water which has been allocated for the United States as it deems necessary to meet the requirement of the Convention of 1906 to deliver water in the bed of the Rio Grande at the head works of the Acequia Madre.

2.5. Annual Allocation for EBID and EPCWID

EBID's and EPCWID's portions of the quantity of Annual Allocated Water, exclusive of the United States' portion of Annual Allocated Water pursuant to the Convention of 1906, shall be determined by the process described in Table 2 for a full allocation condition and Table 3 when there is less than a full water supply available. EBID's and EPCWID's yearly allocation shall be determined using the empirically derived linear regression analysis equation (D-2). Equation D-2 was derived using historical Rio Grande Project data correlating releases from Rio Grande Project storage and

corresponding yearly deliveries to Rio Grande Project diversions from the Rio Grande for EBID, EPCWID and Mexico during the Water Years 1951 to 1978 inclusive. The amount of Annual Allocated Water shall be determined using the D-2 equation for EPCWID, using equation 2-1 for the United States (pursuant to the Convention of 1906), and using the diversion ratio (ratio of the amount of water Charged to the amount of water Released) for EBID and in accordance with Tables 1 through 4 herein.

* * *

3. RELEASE FROM STORAGE

3.1. Orders for Release of Rio Grande Project Water from Storage

EBID and EPCWID may order releases from Project storage to meet their respective delivery requirements of Annual Allocated Water or Carryover Water at their river headings during the Water Year at such times and in such quantities as they respectively elect. Water orders shall be delivered by the United States to their respective diversion and delivery points as prescribed by agreed to travel times, or as described in the Operations Manual when completed. EBID shall not order changes more frequently than four times per week. EPCWID shall not order changes more frequently than twice per week.

EBID and EPCWID shall determine the amount of water to be released from Caballo Reservoir necessary to meet the diversion orders at the time and days requested by EBID, EPCWID, and the United States

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(pursuant to the Convention of 1906). If EBID and EPCWID cannot agree on the amount or timing of release, then the United States shall make such determinations.

The parties shall develop a schedule of order changes that will best meet the needs of each party at their respective delivery points.

The United States shall only release Project Water ordered by EBID when EBID has Annual Allocated Water or Carryover Water remaining in their allocation. The United States shall only release Project Water ordered by EPCWID when EPCWID has Annual Allocated Water or Carryover Water remaining in their allocation.

The Parties may make non-scheduled order changes to adjust for rainfall/runoff or flood events, accident to the delivery system, or for public safety.

The United States may make releases from storage in such quantities as necessary to meet the requirements of the Convention of 1906 and according to the schedule determined by the United States under the authority of the Convention of 1906.

4. DELIVERIES

4.1. Operation of Release and Diversion Structures

The United States shall operate Elephant Butte Reservoir so as to provide for sufficient quantities of water

to be available for released from Caballo Reservoir to the Parties, as outlined in Section 3.1 herein. The United States or its designee shall operate Percha, Leasburg, and Mesilla diversion dams so as to provide sufficient flows for the districts' diversions on the Rio Grande. The United States shall operate the American and International diversion darns and make the diversions into the American Canal.

4.2. Obligations to Deliver Project Water

Within a reasonable amount of time from the time requested for the release by EBID and EPCWID, or as defined in the Operations Manual when completed, the United States shall release from project storage those quantities of Project Water which will meet the individual requirements of each district as communicated in their water order to the United States to be delivered at the Arrey Canal Heading, Leasburg Canal Heading, Eastside Canal Heading, Westside Canal Heading, Del Rio Lateral Heading and any additional authorized points of delivery for EBID, and to be delivered to the Franklin Canal Heading, the Riverside Canal Heading, the City of El Paso's water treatment plants and any additional authorized points of delivery for EPCWID. Within a reasonable of amount time from the time requested for the delivery, or as defined in the Operations Manual when completed, the United States shall deliver those quantities of Project Water in the Rio Grande at the head works of the Acequia Madre in accordance with the orders designated by the United States.

5. FLOW REQUIREMENTS

5.1. Order

An “Order” is a request to the United States by a Party to deliver a quantity of Project Water to each district’s delivery and accounting stations at a specific flow rate (cubic feet per second) and at specified delivery time and day.

5.2. Release

A “Release” is a flow rate (cubic feet per second) of Project Water released from Project Storage.

5.3. Delivered Flow

A “Delivered Flow” is a flow rate (cubic feet per second) of Project Water that meets the conditions required to meet the delivery requirement for each district and Mexico at their designated delivery point or metering stations (stations) and at specified delivery time and day.

5.4. Charge

A “Charge” is a quantity of Project Water (acre-feet) that is deducted from (i.e. charged against) a Party’s Annual Allocated or actual Carryover Water account.

5.5. Charge Against EBID's and EPCWID's Annual Allocated Water including Carry-over Water

EBID's and EPCWID's remaining Annual Allocated Water shall be computed by subtracting a Charge which shall be equal to EBID's or EPCWID's respective delivery at main canal headings and any other designated and authorized metering stations at the Rio Grande diversion dams against their respective remaining portion of Annual Allocated Water including carryover water.

Allocation charges for water diverted by EPCWID, EBID, and Mexico shall be made as follows, or in accordance with the procedures and methods contained in the Operations Manual when completed.

1. EBID and EPCWID shall report to the United States the flow records for their respective diversion and water delivery stations for each month by the 5th day of the following month.
2. The reports may be transmitted electronically by any party to the other parties.
3. The United States shall report to EBID and EPCWID the previous month's Allocation Charges and the cumulative year-to-date Allocation Charges for EBID, EPCWID, and the United States by the 10th day of the month.

A hypothetical example of summary tables of the Allocation Charges for EBID and EPCWID is contained in Appendix A attached here to.

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Water diverted from the Rio Grande by EBID may be returned (bypassed) to the Rio Grande for credit to their water allocation account at one designated location each within the Leasburg, Eastside, and Westside canal system, and two designated locations within the Arrey Canal system. Water diverted from the Rio Grande by EPCWID may be returned (bypassed) to the Rio Grande for credit to their water allocation account at one designated location on the La Union East Canal. Such credits shall be the smaller of the amount of water declared for bypass by the respective district or the actual amount of water that was measured and returned to the Rio Grande.

The United States shall make every effort to match the delivery and the order for each district at all designated metering and delivery stations in order to minimize spill water and meet the order at any given time.

5.6. Charge Against United States' Annual Allocated Water for Delivery to Mexico

United States' remaining quantity of Annual Allocated Water shall be equal to United States' previous allocation of Annual Allocated Water during the current Water Year minus the water delivered to Mexico at their diversion point on the Rio Grande at the Acequia Madre during the Water Year. The United States will maintain the gates at the International Dam so as to minimize the leakage to the greatest extent practical.

5.7. Compliance with Delivery of Project Water to Mexico at the Acequia Madre

If the flow at the first metering station above International Diversion Dam does not meet the Acequia Madre delivery requirement, the United States will adjust the gates at American Diversion Dam to reduce the flow to meet the corresponding delivery requirement for that day. The United States will give notice to EBID and EPCWID of such action except when such flow is due to storm runoff or flood events, short term debris clearing or sluicing operations. Any time the United States manually adjusts the flow at the American Diversion Dam by more than 25 cfs, for any reason, or at anytime the flow diverted at the American Diversion Dam into the American Canal exceeds the capacity of the American Canal, United States shall notify EPCWID as soon as possible.

5.8. Diversion Points

The diversion points used for EBID are as follows: Percha Lateral, Arrey Canal, Leasburg Canal, California Extension, various designated river pumps, Del Rio Lateral, East Side Canal, and West Side Canal. The diversion points used for the EPCWID are as follows: the New Mexico/Texas state line crossings for the La Union East Lateral, Three Saints Lateral, and La Union West lateral in the Mesilla Valley. In the El Paso Valley, deliveries to EPCWID will be made at the Robertson/Umbenhauer Water Treatment Plant, Franklin Canal,

Jonathan Rogers Water Treatment Plant, and Riverside Canal.

5.9. Compliance with Delivery of Project Water to EBID and EPCWID

The United States shall closely match the order and diversion at each designated delivery metering station through close monitoring of releases from Project Storage and river accretions or losses. Close coordination and daily communication shall be maintained between EBID, EPCWID, and the United States in order to make adjustments to releases from Project Storage such that water deliveries match water order amounts as closely as possible at each delivery point in the Project.

6. GENERAL PROVISIONS

6.1. Compliance with Federal Law

The terms of this Agreement are subject to applicable federal law. All Parties will cooperate to comply with all federal law prior to and during implementation of this Agreement.

6.2. Other Agreements

This Agreement is not intended to conflict with terms of any prior agreements or contracts between the EBID and EPCWID, or EBID and the United States, or EPCWID and the United States, or among all of the Parties; however, the Agreement represents the

current conditions and present understanding that future operations shall be as provided for herein unless further modified upon having reached unanimous consent of the Parties.

6.3. Required Continuous Flow Metering Stations

A list of required continuous flow metering stations is attached to this Agreement as Appendix B. Each Party shall distribute and exchange copies of all flow records for all flow metering stations for which it is responsible, as listed in Appendix B, among the other Parties at least monthly with a goal of real time data exchanges.

6.4. Regulating Reservoirs Downstream of Caballo Dam

Nothing in this Agreement shall be interpreted to prohibit the construction and/or operation of an off-channel regulating reservoir, providing however that no such reservoir shall affect the water order or delivery requirements of the Parties under this Agreement

6.5. Emergency Conditions (Force Majeure)

If any Party through no fault of its own is rendered unable, wholly or in part, by Force Majeure to carry out its obligations under this Agreement, then the obligations of such Party, so far as they are affected by such Force Majeure, shall be suspended during the time

reasonably necessary to remedy such inability, but for no longer period. The term "Force Majeure" shall mean acts of God, wars, terrorism, vandalism, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, storms, floods, hazardous spills, or explosions.

6.6. Term of Agreement

This Agreement shall be in effect from January 1, 2008 until December 31, 2050.

6.7. Modification of Agreement

The Parties may modify any provisions of this Agreement upon having reached unanimous consent.

6.8. Assignment Limited – Successors and Assigns Obligated

The provisions of this Agreement shall apply to and bind the successors and assigns of the Parties hereto. No assignment of any right or obligation shall be made by any Party without first obtaining written approval by the other Parties.

6.9. Obligations to Indian Tribes Not Affected

Nothing in this Agreement shall be construed as affecting the obligations of the United States of America to the Indian Tribes, or as impairing the rights of the Indian Tribes.

6.10. Obligations to Mexico Not Affected

Nothing in this Agreement shall be construed as affecting the obligations of the United States of America to Mexico under existing treaties.

6.11. Amendment of Agreement

This Agreement shall be reviewed for improvement of operations at least on an annual basis or as agreed to by the majority of the parties. Any of the parties may submit a written request to the other parties for review of this Agreement at any time.

6.12. Rio Grande Compact

Nothing herein is intended to alter, amend, repeal, modify, or be in conflict with the provisions of the Rio Grande Compact.

* * *

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the 10th day of March, 2008.

Attest:

ELEPHANT BUTTE
IRRIGATION DISTRICT

/s/ Willie Koenig
Willie Koenig
Secretary

By: /s/ James Salopek
James Salopek
President

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Attest:

EL PASO COUNTY
WATER IMPROVEMENT
DISTRICT NO. 1

/s/ Indar Singh
Indar Singh
Secretary

By: /s/ Johnny Stubbs
Johnny B. Stubbs
President of the
Board of Directors

Attest:

UNITED STATES
OF AMERICA

/s/ Christopher B. Rich
for Regional Solicitor

By: /s/ Larry Walkowski
Regional Director
Upper Colorado
Region
Bureau of
Reclamation
