#### 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

#### DECLARATION OF MICHELLE ESTRADA-LOPEZ IN SUPPORT OF THE UNITED STATES' OPPOSITION TO PROPOSED DECREE

- I, Michelle Estrada-Lopez, upon personal knowledge, declare and state as follows:
- 1. I earned a Bachelor of Science in Civil Engineering with a concentration in Water Resources and a minor in Applied Mathematics from New Mexico State University. I graduated first in my class with Highest Honors.
- 2. In 2009, I earned a Master of Science in Civil Engineering with a concentration in Water Resources from New Mexico State University. The thesis for my Master of Science was on measuring evaporation using Eddy Covariance Method from Caballo Lake, New Mexico and surrounding areas within the Rio Grande Project.

- 3. Upon graduation, I began my career with the United States Department of the Interior, Bureau of Reclamation ("Reclamation") as a Civil Engineer (Hydraulic/Hydrologic) in the Water Operations Group in the Albuquerque Area Office. In 2013, I was promoted to Project Manager in the Water Operations Group. In 2021, I was promoted to my current position: Lead Civil Engineer for Reclamation's Water Operations Group.
- 4. In both my prior and current positions with Reclamation, my work has involved, among other tasks:
  - Analyzing water data;
  - Rio Grande Project history and operations;
  - Serving as Reclamation's representative on the Rio Grande Project's Operating Agreement Committee;
  - Providing accounting data, information, and reporting for Reclamation to the Rio Grande and Pecos River Compact Commissions;
  - Making operational decisions on storage and releases on the Rio Grande, Rio Chama, and Pecos River;
  - Tracking San Juan-Chama Project water and Rio Grande water using the Upper Rio Grande Water Accounting Model;
  - Developing San-Juan Chama water routing loss rates from Cochiti Dam to Elephant Butte that were adopted by the Rio Grande Compact Commission for Compact accounting;
  - Overseeing water operations of the Rio Grande Project storage reservoirs, including recording data of reservoir operations and water deliveries;
  - Reviewing and coordinating the modeling and analysis efforts for Reclamation related to the Rio Grande Project including the effects of groundwater use on Rio Grande Project operations; and,
  - Leading the development of the annual reporting and water accounting data submitted to the Rio Grande and Pecos River Compact Commissions for Reclamation.

- 5. The Rio Grande Project ("Project") played a pivotal role throughout my educational and professional background.
- 6. My involvement in *Texas v. New Mexico*, Orig. No. 141 began in 2015. I have assisted with settlement discussions, discovery, and trial preparation throughout the course of this litigation.
- 7. I provided sworn testimony at a deposition on February 12, 2020. I also served as Reclamation's representative at the August 2021 site visit with the Special Master and the Parties. On October 4, 2021, I was called as the first witness for the United States. During my testimony, I provided an overview of the Project and explained Reclamation's role in Project water allocation, operations, and accounting.
- 8. In November 2022, Colorado, New Mexico, and Texas submitted a Proposed Consent Decree Supporting the Rio Grande Compact ("Proposed Decree"). I have reviewed the filings made by the States, including the Proposed Decree and the supporting declarations of, Michael Hamman, Margaret Barroll, Gregory Sullivan, Robert Skov, Robert Brandes, and William Hutchinson. I have also reviewed the attachments to those declarations.
- 9. I am familiar with the technical and operational terms of the Proposed Decree, along with the data and methods used to develop the terms, including but not limited to the Effective El Paso Index, the Departure Limits, Management Triggers, and the changes to Project operations, allocations, and accounting outlined in Section 8 of Appendix 1.
- 10. I am concerned that the Proposed Decree would divest Reclamation of its authority and discretion to control and operate the Project. I am also concerned that the Proposed Decree would be inadequate to ensure that the water users in New Mexico and Texas who paid Reclamation for construction costs and continue to pay for Project operation and

maintenance will receive their water. If the Proposed Decree is accepted by the Court, it would likely become more difficult, if not impossible, to efficiently operate the Project and ensure that Project water is utilized efficiently.

- 11. The Proposed Decree seeks to impose mandates on Reclamation in terms of Project allocation balance transfers. *See*, *e.g.*, Proposed Decree II.C.3.b.i, II.C.3.b.ii, II.D.2.a, II.D.2.b, II.D.3.a, and II.D.3.b.i (delegating discretion to Texas and New Mexico to determine Project allocation through the authority to transfer allocated water from one irrigation district to the other). But New Mexico and Texas have no authority to set or modify Project allocations, and no authority or practical ability to release water to fulfill the allocations.
- 12. Elephant Butte Irrigation District ("EBID") and El Paso County Water Improvement District No. 1 ("EPCWID") (collectively, the "Districts") are the only entities that have contracts with the Secretary of the Interior for direct delivery of Rio Grande Project water. These contracts cover a wide array of matters including repayment, operation and maintenance responsibilities for water infrastructure, and allocation, accounting, and water orders, among other matters.
- 13. The Districts' contracts with the Secretary of the Interior entitle them to delivery of an annual allocation of water from the Project. In exchange for those deliveries, EBID and EPCWID repaid a portion of the Project infrastructure construction costs. Specifically, EPCWID repaid a total of \$8,069,247 and EBID repaid a total of \$5,698,012. This led to the transfer of the operation and maintenance responsibility for the irrigation and distribution system in Texas and New Mexico to EPCWID and EBID, respectively.
- 14. The operation and maintenance of Reclamation's three diversion dams—Percha Dam, Leasburg Dam, and Mesilla Dam— in New Mexico were transferred to EBID. EPCWID

pays a portion of the operation and maintenance costs of Mesilla Diversion Dam to EBID since the water diverted at Mesilla is delivered to both EBID and EPCWID.

- 15. Both EBID and EPCWID continue to pay a portion of the costs for operation and maintenance of Elephant Butte Dam, and a portion of water operations labor costs. As of June 2022, the estimated costs for fiscal year 2023 for Reclamation's Project to be billed to EBID and EPCWID are \$354,343 and \$290,892, respectively.
- 16. The Districts also contribute to a portion of the costs associated with ensuring the Rio Grande at Caballo gage meets U.S. Geological Services ("USGS") standards.
  - a. The Compact Rules and Regulations state that the Rio Grande at Caballo gage "shall be equipped, maintained and operated by or on behalf of Texas through the agency of the U.S. Bureau of Reclamation." *See* Exhibit A (Compact Rules and Regulations). Reclamation does not act as an agent of Texas and is not reimbursed by Texas for its work on the gage.
  - b. The Compact Rules and Regulations also require that "the equipment, method and frequency of measurements at each gaging station shall be sufficient to obtain records at least equal in accuracy to those classified as good by the U.S. Geological Survey." *Id.* Reclamation has obtained technical review and approval of the Caballo Gage record from USGS on an annual basis.
  - c. To be classified as "good," gage readings must be within 10% of the recorded value. *See* USGS Documentation, available at <a href="https://wdr.water.usgs.gov/current/documentation.html">https://wdr.water.usgs.gov/current/documentation.html</a>. This work generally involves reviewing the data collected by the continuous measurement devices and flow measurements taken by Reclamation staff at the gaging station at least weekly during

Caballo releases. Reclamation also uses the measurements that qualify as "good" to confirm or shift the stage-discharge relationship that is used to calculate the flow rate. To meet this standard annually, Reclamation monitors and measures at the gaging station and frequently makes upgrades to the gaging infrastructure. It costs anywhere between \$40,000 to \$80,00 per year to ensure this gage remains in good standing.<sup>1</sup>

- 17. The operation and maintenance transfers to EBID and EPCWID, in 1979 and 1980, respectively, required Reclamation to enter into an operating agreement with both Districts. The Project is currently operated under a three-party contract between Reclamation, EBID, and EPCWID, which is referred to as the 2008 Operating Agreement for the Project ("2008 Operating Agreement") and the supporting Operations Manual ("Manual").
- 18. The 2008 Operating Agreement and Manual describe Reclamation's role in determining the Project allocation, the technical allocation methodology developed by Reclamation, the methods to account for the District's allocation charges based on water orders and deliveries, and the framework, roles and responsibilities of the Districts and Reclamation for developing and refining the technical methods.
- 19. If implemented, the Proposed Decree would undermine the contracts with the Districts and divest Reclamation of its discretion to allocate Project water. Under the Proposed Decree Sections II.D.2.c and II.D.3.a, for example, New Mexico and Texas would assume

<sup>&</sup>lt;sup>1</sup> The Proposed Decree submitted by the States would require that New Mexico's Index Obligation and Index Delivery be measured by flows at the Rio Grande at El Paso gage. Decree II.B. The Compact Commission has not adopted it as a gage for accounting purposes. Reclamation is not currently authorized to fund or conduct maintenance of the Rio Grande at El Paso gage on IBWC's behalf.

control over the Project allocation to EBID and EPCWID, even if the accrued Negative Departures are below the limits established in the Proposed Decree Section II.C.

- 20. The Proposed Decree also lacks clarity with respect to future Project operations. For example, the Proposed Decree does not address what would occur if Texas does not agree to a transfer of allocation water proposed by New Mexico under Sections II.C.b or II.D.3.a. The Proposed Decree is also silent as to what would occur if EBID does not have sufficient allocation to satisfy the imposed transfer from EBID to EPCWID, or if the amount of water available for release from Project storage is not sufficient to meet the Index Obligation due to excessive losses between Caballo Dam and the El Paso gage. The methodology for the penalty water in Section II.C does not take into account the availability of water to the Project and would impose an additional 12,000 ac-ft or 15,000 ac-ft per year above the New Mexico Index obligation. The allocation transfer provision could therefore result in a situation where EBID's entire allocation could be transferred to EPCWID, and EBID could not take delivery of any water from the Project, leading to additional groundwater pumping that could affect Project efficiency and potentially add to the accrued Negative Departure and cause additional future allocation balance transfers.
- 21. The Proposed Decree's provisions regarding the timing and volume of allocation transfers are also unclear and incomplete.
  - a. The Proposed Decree does not include any limitation on the States with respect to the timing of the forced allocation balance transfers. The Rio Grande Compact Commission conducts its business annually as described in the Compact. The finalization of the accounting for the Rio Grande Compact typically occurs in the April following the calendar year for which the accounting is being conducted. By April, the

Districts have typically developed plans for the season's water orders and historically have already been ordering water for 6-8 weeks. Under the Proposed Decree, if the States decide to impose an allocation transfer after the Commission meeting in April, the planning by the Districts and their farmers could be disruptive because the allocation transfer might shorten the water release season for one district and extend it for the other. This would make it difficult, if not impossible, for the Districts to plan for their irrigation seasons to maximize water delivery efficiency for their farmers.

- b. The Proposed Decree's language for the Negative Departure and Positive Departure triggers for allocation transfers is internally inconsistent. *See*, *e.g.* Proposed Decree II.D.2.a, II.D.2.c, and II.D.3.a. Accordingly, it is unclear if the Proposed Decree requires that Reclamation establish different methodologies to address those allocation transfers. Given this lack of clarity, there is a great deal of uncertainty as to how the Negative and Positive Departure allocation transfers would be treated.
- 22. The Proposed Decree would also change the Project programmatic operating procedures. I have overseen the water allocations and accounting for the Project since 2014. The Proposed Decree would infringe on Reclamation's discretion to make the allocation and accounting decisions for the Project. The Proposed Decree mandates that Project operations "must be consistent" with the EEPI and "must be undertaken in a manner that does not interfere" with the States "rights and entitlements" under the Compact and the Decree. impedes upon the United States' discretion with respect to Project operations. The Proposed Decree asserts:

Section II.A. Project operations and Project Accounting must be consistent with this Decree. Project operations and Project Accounting, including Project Carryover Water, must be undertaken in a manner that does not interfere with New Mexico's or Texas's rights and entitlements defined in the Compact and this Decree, including by causing Negative Departures or causing a Trigger to be exceeded. Examples of procedures to maintain consistency between Project

operations, Project Accounting, and this Decree are included in Section 8 of Appendix 1. Except as required to facilitate compliance with the Compact, this Decree does not otherwise alter the discretion of the United States to operate the Project.

Section III.B. Project operations and Project Accounting must not interfere with Compact administration.

These provisions do not provide Reclamation personnel with any guidance as to what is or is not permissible. There is no defined measurement of the consistency in the Proposed Decree, nor does it define what entity or entities would have the authority to determine and enforce consistency.

- 23. The Proposed Decree also states the Project operations cannot, "caus[e] Negative Departures or caus[e] a Trigger to be exceeded." *Id.* The Proposed Decree does not provide any methodology for evaluating causation and distinguishing between the operations of the Project, interference with Project operations by groundwater use, changes in climate, river efficiency, farm efficiencies, or any number of other factors that could impact Index deliveries.

  Reclamation releases water from Caballo only based on the orders of EBID, EPCWID and IBWC on behalf of Mexico. The Proposed Decree does not provide any practical guidance about how to address causation when Index Departures may be caused by reduced demand in one state versus the other.
- 24. The Proposed Decree is also vague as to what, and how many, Project operating procedures are being imposed on Reclamation. For example, Appendix 1, Section 8 provides: "At a minimum, the following are examples of procedures to ensure that Texas and New Mexico receive their equitable apportionment below Elephant Butte Reservoir as contemplated in the Decree." The three examples in the Proposed Decree call for (1) modifying the Project's 2008 Operating Agreement Section 2.5 from the current allocation equation known as the "D2 Equation" to the "Modified D2 Equation" that is described in Dr. Barroll's declaration, *see*

Barroll Decl. at ¶ 40 (a); (2) modifying the allocation charges for EPCWID methodology in the 2008 Operating Agreement Section 5.8 and Manual 4.5.3.d-g from the historical delivery points in the distribution system to the Rio Grande at El Paso Gage; and (3) adding new methodology to the 2008 Operating Agreement and Manual to reduce Carryover accounts for evaporation and adjust Carryover accounts for differences in in conveyance efficiency from the year Carryover was accumulated to the subsequent year when it is used.

- a. The qualifier—"[a]t a minimum"—creates ambiguity as to whether these changes are all that is being required. It's also unclear if the States utilized this qualifier to leave open the possibility for the Compact Commission to make additional mandates at its discretion without Reclamation's input. This open-ended language, coupled with Section V of the Proposed Decree's blanket statement that the appendices may be "modified by unanimous agreement of the Compacting States" or the Court, seems to give the States or the Compact Commission discretion to impose additional modifications to Project operations without the consent or approval of Reclamation. This is contrary to Reclamation's authority and discretion to control Project operations.
- b. The States also fail to provide adequate analysis or methodologies to implement the proposed changes. Therefore, either the Court, the States, or Reclamation would need to develop methodologies and analyze them. It is unclear if those modifications would then need to be formally approved by the Compact Commission or the Court.
- c. The Proposed Decree's attempt to add new methodologies to the 2008

  Operating Agreement and Manual is particularly problematic. The States' proposal

  would reduce Carryover accounts for evaporation and adjust Carryover accounts for

differences in in conveyance efficiency from the year Carryover was accumulated to the subsequent year when it is used. This would directly reduce the volume of water allocated for delivery to a district. This reduction would most likely result in a negative departure for evaporation applied to EPCWID's Carryover account and a positive departure for evaporation applied to EBID's Carryover account. The end-result is contrary to maintaining "consistency" if the EEPI obligation is not adjusted by the same amount negatively for charges to EPCWID and positively for charges to EBID in the same years the evaporation reductions are applied.

25. For decades, Reclamation, EBID, and EPCWID have developed the programmatic operating procedures necessary to ensure efficient Project operations, and they have the discretion and flexibility to make necessary modifications to those programmatic operations to address unexpected changes. With the extraordinary drought currently occurring in the Rio Grande Basin the ability to make timely decisions and modifications is necessary for the efficient operation of the Project. If the Court were to accept the Proposed Decree, the States would have the ability to impose any adjustment they deem appropriate at any time. If Reclamation and the Districts disagreed with the adjustment, it could take months or even years to raise the issue with the Supreme Court and obtain a determination on whether the adjustment is necessary to "maintain consistency."

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed this 20 day of January, 2023, at Albuquerque, New Mexico.

Michelle Estradez Michelle Estrada-Lopez

## **EXHIBIT A**

#### RIO GRANDE COMPACT

The State of Colorado, the State of New Mexico, and the State of Texas, desiring to remove all causes of present and future controversy among these States and between citizens of one of these States and citizens of another State with respect to the use of the waters of the Rio Grande above Fort Quitman, Texas, and being moved by considerations of interstate comity, and for the purpose of effecting an equitable apportionment of such waters, have resolved to conclude a Compact for the attainment of these purposes, and to that end, through their respective Governors, have named as their respective Commissioners:

For the State of Colorado
For the State of New Mexico
For the State of Texas

M. C. Hinderlider Thomas M. McClure Frank B. Clayton

who, after negotiations participated in by S. O. Harper, appointed by the President as the representative of the United States of America, have agreed upon the following articles, to- wit:

#### ARTICLE I

- (a) The State of Colorado, the State of New Mexico, the State of Texas, and the United States of America, are hereinafter designated "Colorado," "New Mexico," "Texas," and the "United States," respectively.
- (b) "The Commission" means the agency created by this Compact for the administration thereof.
- (c) The term "Rio Grande Basin" means all of the territory drained by the Rio Grande and its tributaries in Colorado, in New Mexico, and in Texas above Fort Quitman, including the Closed Basin in Colorado.
- (d) The "Closed Basin" means that part of the Rio Grande Basin in Colorado where the streams drain into the San Luis Lakes and adjacent territory, and do not normally contribute to the flow of the Rio Grande.
- (e) The term "tributary" means any stream which naturally contributes to the flow of the Rio Grande.
- (f) "Transmountain Diversion" is water imported into the drainage basin of the Rio Grande from any stream system outside of the Rio Grande Basin, exclusive of the Closed Basin.
- (g) "Annual Debits" are the amounts by which actual deliveries in any calendar year fall below scheduled deliveries.
- (h) "Annual Credits" are the amounts by which actual deliveries in any calendar year exceed scheduled deliveries.
- (i) "Accrued Debits" are the amounts by which the sum of all annual debits exceeds the sum of all annual credits over any common period of time.
- (j) "Accrued Credits" are the amounts by which the sum of all annual credits exceeds the sum of all annual debits over any common period of time.
- (k) "Project Storage" is the combined capacity of Elephant Butte Reservoir and all other reservoirs actually available for the storage of usable water below Elephant Butte and above the first diversion to lands of the Rio Grande Project, but not more than a total of 2.638.860 acre feet.

#### RIO GRANDE COMPACT

- (I) "Usable Water" is all water, exclusive of credit water, which is in project storage and which is available for release in accordance with irrigation demands, including deliveries to Mexico.
- (m) "Credit Water" is that amount of water in project storage which is equal to the accrued credit of Colorado, or New Mexico, or both.
- (n) "Unfilled Capacity" is the difference between the total physical capacity of project storage and the amount of usable water then in storage.
- (o) "Actual Release" is the amount of usable water released in any calendar year from the lowest reservoir comprising project storage.
- (p) "Actual Spill" is all water which is actually spilled from Elephant Butte Reservoir, or is released therefrom for flood control, in excess of the current demand on project storage and which does not become usable water by storage in another reservoir; provided, that actual spill of usable water cannot occur until all credit water shall have been spilled.
- (q)"Hypothetical Spill" is the time in any year at which usable water would have spilled from project storage if 790,000 acre feet had been released therefrom at rates proportional to the actual release in every year from the starting date to the end of the year in which hypothetical spill occurs; in computing hypothetical spill the initial condition shall be the amount of usable water in project storage at the beginning of the calendar year following the effective date of this Compact, and thereafter the initial condition shall be the amount of usable water in project storage at the beginning of the calendar year following each actual spill.

#### ARTICLE II

The Commission shall cause to be maintained and operated a stream gaging station equipped with an automatic water stage recorder at each of the following points, to-wit:

- (a) On the Rio Grande near Del Norte above the principal points of diversion to the San Luis Valley;
  - (b) On the Conejos River near Mogote;
  - (c) On the Los Pinos River near Ortiz;
  - (d) On the San Antonio River at Ortiz;
  - (e) On the Conejos River at its mouths near Los Sauces;
  - (f) On the Rio Grande near Lobatos;
  - (g) On the Rio Chama below El Vado Reservoir;
  - (h) On the Rio Grande at Otowi Bridge near San Ildefonso;
  - (i) On the Rio Grande near San Acacia;
  - (j) On the Rio Grande at San Marcial;
  - (k) On the Rio Grande below Elephant Butte Reservoir;
  - (I) On the Rio Grande below Caballo Reservoir.

Similar gaging stations shall be maintained and operated below any other reservoir constructed after 1929, and at such other points as may be necessary for the securing of records required for the carrying out of the Compact; and automatic water stage recorders shall be maintained and operated on each of the reservoirs mentioned, and on all others constructed after 1929.

Such gaging stations shall be equipped, maintained and operated by the Commission directly or in cooperation with an appropriate Federal or State agency, and the equipment, method and frequency of measurement at such stations shall be such as to produce reliable records at all times. (Note: See Resolution of Commission printed elsewhere in this report.)

#### ARTICLE III

The obligation of Colorado to deliver water in the Rio Grande at the Colorado-New Mexico State Line, measured at or near Lobatos, in each calendar year, shall be ten thousand acre feet less than the sum of those quantities set forth in the two following tabulations of relationship, which correspond to the quantities at the upper index stations:

#### DISCHARGE OF CONEJOS RIVER Quantities in thousands of acre feet

Conejos Index Supply (1)	Conejos River at Mouths (2)
100	0
150	20
200	45
250	75
300	109
350	147
400	188
450	232
500	278
550	326
600	376
650	426
700	476

Intermediate quantities shall be computed by proportional parts.

- (1) Conejos Index Supply is the natural flow of Conejos River at the U.S.G.S. gaging station near Mogote during the calendar year, plus the natural flow of Los Pinos River at the U.S.G.S. gaging station near Ortiz and the natural flow of San Antonio River at the U.S.G.S. gaging station at Ortiz, both during the months of April to October, inclusive.
- (2) Conejos River at Mouths is the combined discharge of branches of this river at the U.S.G.S. gaging stations near Los Sauces during the calendar year.

## DISCHARGE OF RIO GRANDE EXCLUSIVE OF CONEJOS RIVER Quantities in thousands of acre feet

Rio Grande at Del Norte (3)	Rio Grande at Lobatos less Conejos at Mouths (4)
200	60
250	65
300	75
350	86
400	98
450	112
500	127
550	144
600	162

#### RIO GRANDE COMPACT

## DISCHARGE OF RIO GRANDE EXCLUSIVE OF CONEJOS RIVER--Con. Quantities in thousands of acre feet

Rio Grande at Del Norte (3)	Rio Grande at Lobatos less Conejos at Mouths (4)
650	182
700	204
750	229
800	257
850	292
900	335
950	380
1,000	430
1,100	540
1,200	640
1,300	740
1,400	840

Intermediate quantities shall be computed by proportional parts.

- (3) Rio Grande at Del Norte is the recorded flow of the Rio Grande at the U.S.G.S. gaging station near Del Norte during the calendar year (measured above all principal points of diversion to San Luis Valley) corrected for the operation of reservoirs constructed after 1937.
- (4) Rio Grande at Lobatos less Conejos at Mouths is the total flow of the Rio Grande at the U.S.G.S. gaging station near Lobatos, less the discharge of Conejos River at its Mouths, during the calendar year.

The application of these schedules shall be subject to the provisions hereinafter set forth and appropriate adjustments shall be made for (a) any change in location of gaging stations; (b) any new or increased depletion of the runoff above inflow index gaging stations; and (c) any transmountain diversions into the drainage basin of the Rio Grande above Lobatos.

In event any works are constructed after 1937 for the purpose of delivering water into the Rio Grande from the Closed Basin, Colorado shall not be credited with the amount of such water delivered, unless the proportion of sodium ions shall be less than forty-five percent of the total positive ions in that water when the total dissolved solids in such water exceeds three hundred fifty parts per million.

#### ARTICLE IV

The obligation of New Mexico to deliver water in the Rio Grande at San Marcial, during each calendar year, exclusive of the months of July, August, and September, shall be that quantity set forth in the following tabulation of relationship, which corresponds to the quantity at the upper index station:

## DISCHARGE OF RIO GRANDE AT OTOWI BRIDGE AND AT SAN MARCIAL EXCLUSIVE OF JULY, AUGUST AND SEPTEMBER

#### Quantities in thousands of acre feet

Otowi Index Supply (5)	San Marcial Index Supply (6)
100	0
200	65
300	141
400	219
500	300
600	383
700	469
800	557
900	648
1,000	742
1,100	839
1,200	939
1,300	1,042
1,400	1,148
1,500	1,257
1,600	1,370
1,700	1,489
1,800	1,608
1,900	1,730
2,000	1,856
2,100	1,985
2,200	2,117
2,300	2,253

Intermediate quantities shall be computed by proportional parts.

- (5) The Otowi Index Supply is the recorded flow of the Rio Grande at the U.S.G.S. gaging station at Otowi Bridge near San Ildefonso (formerly station near Buckman) during the calendar year, exclusive of the flow during the months of July, August and September, corrected for the operation of reservoirs constructed after 1929 in the drainage basin of the Rio Grande between Lobatos and Otowi Bridge.
- (6) San Marcial Index Supply is the recorded flow of the Rio Grande at the gaging station at San Marcial during the calendar year exclusive of the flow during the months of July, August and September.

The application of this schedule shall be subject to the provisions hereinafter set forth and appropriate adjustments shall be made for (a) any change in location of gaging stations; (b) depletion after 1929 in New Mexico at any time of the year of the natural runoff at Otowi Bridge; (c) depletion of the runoff during July, August and September of tributaries between Otowi Bridge and San Marcial, by works constructed after 1937; and (d) any transmountain diversions into the Rio Grande between Lobatos and San Marcial.

Concurrent records shall be kept of the flow of the Rio Grande at San Marcial, near San Acacia, and of the release from Elephant Butte Reservoir to the end that the records at these three stations may be correlated. (Note: See Resolution of Commission printed elsewhere in this report.)

#### RIO GRANDE COMPACT

#### ARTICLE V

If at any time it should be the unanimous finding and determination of the Commission that because of changed physical conditions, or for any other reason, reliable records are not obtainable, or cannot be obtained, at any of the stream gaging stations herein referred to, such stations may, with the unanimous approval of the Commission, be abandoned, and with such approval another station, or other stations, shall be established and new measurements shall be substituted which, in the unanimous opinion of the Commission, will result in substantially the same results so far as the rights and obligations to deliver water are concerned, as would have existed if such substitution of stations and measurements had not been so made. (Note: See Resolution of Commission printed elsewhere in this report.)

#### ARTICLE VI

Commencing with the year following the effective date of this Compact, all credits and debits of Colorado and New Mexico shall be computed for each calendar year; provided, that in a year of actual spill no annual credits nor annual debits shall be computed for that year.

In the case of Colorado, no annual debit nor accrued debit shall exceed 100,000 acre feet, except as either or both may be caused by holdover storage of water in reservoirs constructed after 1937 in the drainage basin of the Rio Grande above Lobatos. Within the physical limitations of storage capacity in such reservoirs, Colorado shall retain water in storage at all times to the extent of its accrued debit.

In the case of New Mexico, the accrued debit shall not exceed 200,000 acre feet at any time, except as such debit may be caused by holdover storage of water in reservoirs constructed after 1929 in the drainage basin of the Rio Grande between Lobatos and San Marcial. Within the physical limitations of storage capacity in such reservoirs, New Mexico shall retain water in storage at all times to the extent of its accrued debit. In computing the magnitude of accrued credits or debits, New Mexico shall not be charged with any greater debit in any one year than the sum of 150,000 acre-feet and all gains in the quantity of water in storage in such year.

The Commission by unanimous action may authorize the release from storage of any amount of water which is then being held in storage by reason of accrued debits of Colorado or New Mexico; provided, that such water shall be replaced at the first opportunity thereafter.

In computing the amount of accrued credits and accrued debits of Colorado or New Mexico, any annual credits in excess of 150,000 acre feet shall be taken as equal to that amount.

In any year in which actual spill occurs, the accrued credits of Colorado, or New Mexico, or both, at the beginning of the year shall be reduced in proportion to their respective credits by the amount of such actual spill; provided that the amount of actual spill shall be deemed to be increased by the aggregate gain in the amount of water in storage, prior to the time of spill, in reservoirs above San Marcial constructed after 1929; provided, further, that if the Commissioners for the States having accrued credits authorize the release of part, or all, of such credits in advance of spill, the amount so released shall be deemed to constitute actual spill.

In any year in which there is actual spill of usable water, or at the time of hypothetical spill thereof, all accrued debits of Colorado, or New Mexico, or both, at the beginning of the year shall be cancelled.

In any year in which the aggregate of accrued debits of Colorado and New Mexico exceeds the minimum unfilled capacity of project storage, such debits shall be reduced proportionally to an aggregate amount equal to such minimum unfilled capacity.

To the extent that accrued credits are impounded in reservoirs between San Marcial and Courchesne, and to the extent that accrued debits are impounded in reservoirs above San Marcial, such credits and debits shall be reduced annually to compensate for evaporation losses in the proportion that such credits or debits bore to the total amount of water in such reservoirs during the year.

#### ARTICLE VII

Neither Colorado nor New Mexico shall increase the amount of water in storage in reservoirs constructed after 1929 whenever there is less than 400,000 acre feet of usable water in project storage; provided, that if the actual releases of usable water from the beginning of the calendar year following the effective date of this Compact, or from the beginning of the calendar year following actual spill, have aggregated more than an average of 790,000 acre feet per annum, the time at which such minimum stage is reached shall be adjusted to compensate for the difference between the total actual release and releases at such average rate; provided, further, that Colorado, or New Mexico, or both, may relinquish accrued credits at any time, and Texas may accept such relinquished water, and in such event the state, or states, so relinquishing shall be entitled to store water in the amount of the water so relinquished.

#### ARTICLE VIII

During the month of January of any year the Commissioner for Texas may demand of Colorado and New Mexico, and the Commissioner for New Mexico may demand of Colorado, the release of water from storage reservoirs constructed after 1929 to the amount of the accrued debits of Colorado and New Mexico, respectively, and such releases shall be made by each at the greatest rate practicable under the conditions then prevailing, and in proportion to the total debit of each, and in amounts, limited by their accrued debits, sufficient to bring the quantity of usable water in project storage to 600,000 acre feet by March first and to maintain this quantity in storage until April thirtieth, to the end that a normal release of 790,000 acre feet may be made from project storage in that year.

#### ARTICLE IX

Colorado agrees with New Mexico that in event the United States or the State of New Mexico decides to construct the necessary works for diverting the waters of the San Juan River, or any of its tributaries, into the Rio Grande, Colorado hereby consents to the construction of said works and the diversion of waters from the San Juan River, or the tributaries thereof, into the Rio Grande in New Mexico, provided the present and prospective uses of water in Colorado by other diversions from the San Juan River, or its tributaries, are protected.

#### ARTICLE X

In the event water from another drainage basin shall be imported into the Rio Grande Basin by the United States or Colorado or New Mexico, or any of them jointly, the State having the right to the use of such water shall be given proper credit therefor in the application of the schedules.

#### ARTICLE XI

New Mexico and Texas agree that upon the effective date of this Compact all controversies between said States relative to the quantity or quality of the water of the Rio Grande are composed and settled; however, nothing herein shall be interpreted to prevent

#### RIO GRANDE COMPACT

recourse by a signatory state to the Supreme Court of the United States for redress should the character or quality of the water, at the point of delivery, be changed hereafter by one signatory state to the injury of another. Nothing herein shall be construed as an admission by any signatory state that the use of water for irrigation causes increase of salinity for which the user is responsible in law.

#### ARTICLE XII

To administer the provisions of this Compact there shall be constituted a Commission composed of one representative from each state, to be known as the Rio Grande Compact Commission. The State Engineer of Colorado shall be ex-officio the Rio Grande Compact Commissioner for Colorado. The State Engineer of New Mexico shall be ex-officio the Rio Grande Compact Commissioner for New Mexico. The Rio Grande Compact Commissioner for Texas shall be appointed by the Governor of Texas. The President of the United States shall be requested to designate a representative of the United States to sit with such Commission, and such representative of the United States, if so designated by the President, shall act as Chairman of the Commission without vote.

The salaries and personal expenses of the Rio Grande Compact Commissioners for the three States shall be paid by their respective States, and all other expenses incident to the administration of this Compact, not borne by the United States, shall be borne equally by the three States.

In addition to the powers and duties hereinbefore specifically conferred upon such Commission, and the members thereof, the jurisdiction of such Commission shall extend only to the collection, correlation and presentation of factual data and the maintenance of records having a bearing upon the administration of this Compact, and, by unanimous action, to the making of recommendations to the respective States upon matters connected with the administration of this Compact. In connection therewith, the Commission may employ such engineering and clerical aid as may be reasonably necessary within the limit of funds provided for that purpose by the respective States. Annual reports compiled for each calendar year shall be made by the Commission and transmitted to the Governors of the signatory States on or before March first following the year covered by the report. The Commission may, by unanimous action, adopt rules and regulations consistent with the provisions of this Compact to govern their proceedings.

The findings of the Commission shall not be conclusive in any court or tribunal which may be called upon to interpret or enforce this Compact.

#### ARTICLE XIII

At the expiration of every five-year period after the effective date of this Compact, the Commission may, by unanimous consent, review any provisions hereof which are not substantive in character and which do not affect the basic principles upon which the Compact is founded, and shall meet for the consideration of such questions on the request of any member of the Commission; provided, however, that the provisions hereof shall remain in full force and effect until changed and amended within the intent of the Compact by unanimous action of the Commissioners, and until any changes in this Compact are ratified by the legislatures of the respective states and consented to by the Congress, in the same manner as this Compact is required to be ratified to become effective.

#### ARTICLE XIV

The schedules herein contained and the quantities of water herein allocated shall never be increased nor diminished by reason of any increase or diminution in the delivery or loss of water to Mexico.

#### ARTICLE XV

The physical and other conditions characteristic of the Rio Grande and peculiar to the territory drained and served thereby, and to the development thereof, have actuated this Compact and none of the signatory states admits that any provisions herein contained establishes any general principle or precedent applicable to other interstate streams.

#### ARTICLE XVI

Nothing in this Compact shall be construed as affecting the obligations of the United States of America to Mexico under existing treaties, or to the Indian Tribes, or as impairing the rights of the Indian Tribes.

#### ARTICLE XVII

This Compact shall become effective when ratified by the legislatures of each of the signatory states and consented to by the Congress of the United States. Notice of ratification shall be given by the Governor of each state to the Governors of the other states and to the President of the United States, and the President of the United States is requested to give notice to the Governors of each of the signatory states of the consent of the Congress of the United States.

IN WITNESS WHEREOF, the Commissioners have signed this Compact in quadruplicate original, one of which shall be deposited in the archives of the Department of State of the United States of America and shall be deemed the authoritative original, and of which a duly certified copy shall be forwarded to the Governor of each of the signatory States.

Done at the City of Santa Fe, in the State of New Mexico, on the 18th day of March, in the year of our Lord, One Thousand Nine Hundred and Thirty-eight.

(Sgd.) M. C. HINDERLIDER

(Sgd.) THOMAS M. McCLURE

(Sgd.) FRANK B. CLAYTON

APPROVED:

(Sgd.) S. O. HARPER

RATIFIED BY:

Colorado, February 21, 1939 New Mexico, March 1, 1939 Texas, March 1, 1939

Passed Congress as Public Act No. 96, 76th Congress,

Approved by the President May 31, 1939

# RESOLUTION ADOPTED BY RIO GRANDE COMPACT COMMISSION AT THE ANNUAL MEETING HELD AT EL PASO, TEXAS, FEBRUARY 22-24, 1948, CHANGING GAGING STATIONS AND MEASUREMENTS OF DELIVERIES BY NEW MEXICO

#### RESOLUTION

Whereas, at the Annual Meeting of the Rio Grande Compact Commission in the year 1945, the question was raised as to whether or not a schedule for delivery of water by New Mexico during the entire year could be worked out, and

Whereas, at said meeting the question was referred to the Engineering Advisers for their study, recommendations and report, and

Whereas, said Engineering Advisers have met, studied the problems and under date of February 24, 1947, did submit their Report, which said Report contains the findings of said Engineering Advisers and their recommendations, and

Whereas, the Compact Commission has examined said Report and finds that the matters and things therein found and recommended are proper and within the terms of the Rio Grande Compact, and

Whereas, the Commission has considered said Engineering Advisers' Report and all available evidence, information and material and is fully advised:

Now, Therefore, Be it Resolved:

The Commission finds as follows:

- (a) That because of change of physical conditions, reliable records of the amount of water passing San Marcial are no longer obtainable at the stream gaging station at San Marcial and that the same should be abandoned for Compact purposes.
- (b) That the need for concurrent records at San Marcial and San Acacia no longer exists and that the gaging station at San Acacia should be abandoned for Compact purposes.
- (c) That it is desirable and necessary that the obligations of New Mexico under the Compact to deliver water in the months of July, August, September, should be scheduled.
- (d) That the change in gaging stations and substitution of the new measurements as hereinafter set forth will result in substantially the same results so far as the rights and obligations to deliver water are concerned, and would have existed if such substitution of stations and measurements had not been so made.

#### Be it Further Resolved:

That the following measurements and schedule thereof shall be substituted for the measurements and schedule thereof as now set forth in Article IV of the Compact:

"The obligation of New Mexico to deliver water in the Rio Grande into Elephant Butte Reservoir during each calendar year shall be measured by that quantity set forth in the following tabulation of relationship which corresponds to the quantity at the upper index station:

### DISCHARGE OF RIO GRANDE AT OTOWI BRIDGE AND ELEPHANT BUTTE EFFECTIVE SUPPLY

#### Quantities in thousands of acre-feet

Otowi Index Supply (5)	Elephant Butte Effective Index Supply (6)
100	57
200	114
300	171
400	228
500	286
600	345
700	406
800	471
900	542
1,000	621
1,100	707
1,200	800
1,300	897
1,400	996
1,500	1,095
1,600	1,195
1,700	1,295
1,800	1,395
1,900	1,495
2,000	1,595
2,100	1,695
2,200	1,795
2,300	1,895
2,400	1,995
2,500	2,095
2,600	2,195
2,700	2,295
2,800	2,395
2,900	2,495
3,000	2,595

Intermediate quantities shall be computed by proportional parts.

- (5) The Otowi Index Supply is the recorded flow of the Rio Grande at the U.S.G.S. gaging station at Otowi Bridge near San ildefonso (formerly station near Buckman) during the calendar year, corrected for the operation of reservoirs constructed after 1929 in the drainage basin of the Rio Grande between Lobatos and Otowi Bridge.
- (6) Elephant Butte Effective Index Supply is the recorded flow of the Rio Grande at the gaging station below Elephant Butte Dam during the calendar year plus the net gain in storage in Elephant Butte Reservoir during the same year or minus the net loss in storage in said reservoir, as the case may be.

#### **RIO GRANDE COMPACT**

The application of this schedule shall be subject to the provisions hereinafter set forth and appropriate adjustments shall be made for (a) any change in location of gaging stations; (b) depletion after 1929 in New Mexico of the natural runoff at Otowi Bridge; and (c) any transmountain diversions into the Rio Grande between Lobatos and Elephant Butte Reservoir."

#### Be it Further Resolved:

That the gaging stations at San Acacia and San Marcial be, and the same are hereby abandoned for Compact purposes.

#### Be it Further Resolved:

That this Resolution has been passed unanimously and shall be effective January 1, 1949, if within 120 days from this date the Commissioner for each State shall have received from the Attorney General of the State represented by him, an opinion approving this Resolution, and shall have so advised the Chairman of the Commission, otherwise, to be of no force and effect.

(Note: The following paragraph appears in the Minutes of the Annual Meeting of the Commission held at Denver, Colorado, February 14-16, 1949.

"The Chairman announced that he had received, pursuant to the Resolution adopted by the Commission at the Ninth Annual Meeting on February 24, 1948, opinions from the Attorneys General of Colorado, New Mexico and Texas that the substitution of stations and measurements of deliveries by New Mexico set forth in said resolution was within the powers of the Commission").

## RULES AND REGULATIONS FOR ADMINISTRATION OF THE RIO GRANDE COMPACT

A Compact, known as the Rio Grande Compact, between the States of Colorado, New Mexico and Texas, having become effective on May 31, 1939 by consent of the Congress of the United States, which equitably apportions the waters of the Rio Grande above Fort Quitman and permits each State to develop its water resources at will, subject only to its obligations to deliver water in accordance with the schedules set forth in the Compact, the following Rules and Regulations have been adopted for its administration by the Rio Grande Compact Commission; to be and remain in force and effect only so long as the same may be satisfactory to each and all members of the Commission, and provided always that on the objection of any member of the Commission, in writing, to the remaining two members of the Commission after a period of sixty days from the date of such objection, the sentence, paragraph or any portion or all of these rules to which any such objection shall be made, shall stand abrogated and shall thereafter have no further force and effect; it being the intent and purpose of the Commission to permit these rules to obtain and be effective only so long as the same may be satisfactory to each and all of the Commissioners.

#### GAGING STATIONS /1

Responsibility for the equipping, maintenance and operation of the stream gaging stations and reservoir gaging stations required by the provisions of Article II of the Compact shall be divided among the signatory States as follows:

- (a) Gaging stations on streams and reservoirs in the Rio Grande Basin above the Colorado-New Mexico boundary shall be equipped, maintained, and operated by Colorado in cooperation with the U.S. Geological Survey.
- (b) Gaging stations on streams and reservoirs in the Rio Grande Basin below Lobatos and above Caballo Reservoir shall be equipped, maintained and operated by New Mexico in cooperation with the U.S. Geological Survey to the extent that such stations are not maintained and operated by some other Federal agency.
- (c) Gaging stations on Elephant Butte Reservoir and on Caballo Reservoir, and the stream gaging stations on the Rio Grande below those reservoirs shall be equipped, maintained and operated by or on behalf of Texas through the agency of the U.S. Bureau of Reclamation.

The equipment, method and frequency of measurements at each gaging station shall be sufficient to obtain records at least equal in accuracy to those classified as "good" by the U.S. Geological Survey. Water-stage recorders on the reservoirs specifically named in Article II of the Compact shall have sufficient range below maximum reservoir level to record major fluctuations in storage. Staff gages may be used to determine fluctuations below the range of the water-stage recorders on these and other large reservoirs, and staff gages may be used upon approval of the Commission in lieu of water-stage recorders on small reservoirs, provided that the frequency of observation is sufficient in each case to establish any material changes in water levels in such reservoirs.

/1 Amended at Eleventh Annual Meeting, February 23, 1950.

#### **RULES AND REGULATIONS**

#### RESERVOIR CAPACITIES /1

Colorado shall file with the Commission a table of areas and capacities for each reservoir in the Rio Grande Basin above Lobatos constructed after 1937; New Mexico shall file with the Commission a table of areas and capacities for each reservoir in the Rio Grande Basin between Lobatos and San Marcial constructed after 1929; and Texas shall file with the Commission tables of areas and capacities for Elephant Butte Reservoir and for all other reservoirs actually available for the storage of water between Elephant Butte and the first diversion to lands under the Rio Grande Project.

Whenever it shall appear that any table of areas and capacities is in error by more than five per cent, the Commission shall use its best efforts to have a re-survey made and a corrected table of areas and capacities to be substituted as soon as practicable. To the end that the Elephant Butte effective supply may be computed accurately, the Commission shall use its best efforts to have the rate of accumulation and the place of deposition of silt in Elephant Butte Reservoir checked at least every three years.

#### ACTUAL SPILL /2, /3, /4

- (a) Water released from Elephant Butte in excess of Project requirements, which is currently passed through Caballo Reservoir, prior to the time of spill, shall be deemed to have been Usable Water released in anticipation of spill, or Credit Water if such release shall have been authorized.
- (b) Excess releases from Elephant Butte Reservoir, as defined in (a) above, shall be added to the quantity of water actually in storage in that reservoir, and Actual Spill shall be deemed to have commenced when this sum equals the total capacity of that reservoir to the level of the uncontrolled spillway less capacity reserved for flood purposes, i.e., 1,998,400 acre-feet in the months of October through March inclusive, and 1,973,400 acre-feet in the months of April through September, inclusive, as determined from the 1999 area- capacity table or successor area-capacity tables and flood control storage reservation of 50,000 acre-feet from April through September and 25,000 acre-feet from October through March.
- (c) All water actually spilled at Elephant Butte Reservoir, or released therefrom, in excess of Project requirements, which is currently passed through Caballo Reservoir, after the time of spill, shall be considered as Actual Spill, provided that the total quantity of water then in storage in Elephant Butte Reservoir exceeds the physical capacity of that reservoir at the level of the spillway gates, i.e. -1,830,000 acre-ft in 1942.
- (d) Water released from Caballo Reservoir in excess of Project requirements and in excess of water currently released from Elephant Butte Reservoir, shall be deemed Usable Water released, excepting only flood water entering Caballo Reservoir from tributaries below Elephant Butte Reservoir.

#### DEPARTURES FROM NORMAL RELEASES /5

For the purpose of computing the time of Hypothetical Spill required by Article VI and for the purpose of the adjustment set forth in Article VII, no allowance shall be made for the difference between Actual and Hypothetical Evaporation, and any under-release of usable water from Project Storage in excess of 150,000 acre-ft in any year shall be taken as equal to that amount.

- /1 Amended at Eleventh Annual Meeting, February 23, 1950.
- /2 Adopted at Fourth Annual Meeting, February 24, 1943.
- /3 Amended September 9, 1998.
- /4 Amended March 22, 2001; made effective January 1, 2001.
- /5 Adopted June 2, 1959; made effective January 1, 1952.

#### EVAPORATION LOSSES /6, /7, /8

The Commission shall encourage the equipping, maintenance and operation, in cooperation with the U.S. Weather Bureau or other appropriate agency, of evaporation stations at Elephant Butte Reservoir and at or near each major reservoir in the Rio Grande Basin within Colorado constructed after 1937 and in New Mexico constructed after 1929. The net loss by evaporation from a reservoir surface shall be taken as the difference between the actual evaporation loss and the evapo-transpiration losses which would have occurred naturally, prior to the construction of such reservoir. Changes in evapo-transpiration losses along stream channels below reservoirs may be disregarded.

Net losses by evaporation, as defined above, shall be used in correcting Index Supplies for the operation of reservoirs upstream from Index Gaging Stations as required by the provisions of Article III and Article IV of the Compact.

In the application of the provisions of the last unnumbered paragraph of Article VI of the Compact:

- (a) Evaporation losses for which accrued credits shall be reduced shall be taken as the difference between the gross evaporation from the water surface of Elephant Butte Reservoir and rainfall on the same surface.
- (b) Evaporation losses for which accrued debits shall be reduced shall be taken as the net loss by evaporation as defined in the first paragraph.

#### ADJUSTMENT OF RECORDS

The Commission shall keep a record of the location, and description of each gaging station and evaporation station, and, in the event of change in location of any stream gaging station for any reason, it shall ascertain the increment in flow or decrease in flow between such locations for all stages. Wherever practicable, concurrent records shall be obtained for one year before abandonment of the previous station.

#### NEW OR INCREASED DEPLETIONS

In the event any works are constructed which alter or may be expected to alter the flow at any of the Index Gaging Stations mentioned in the Compact, or which may otherwise necessitate adjustments in the application of the schedules set forth in the Compact, it shall be the duty of the Commissioner specifically concerned to file with the Commission all available information pertaining thereto, and appropriate adjustments shall be made in accordance with the terms of the Compact; provided, however, that any such adjustments shall in no way increase the burden imposed upon Colorado or New Mexico under the schedules of deliveries established by the Compact.

#### TRANSMOUNTAIN DIVERSIONS

In the event any works are constructed for the delivery of waters into the drainage basin of the Rio Grande from any stream system outside of the Rio Grande Basin, such waters shall be measured at the point of delivery into the Rio Grande Basin and proper allowances shall be made for losses in transit from such points to the Index Gaging Station on the stream with which the imported waters are comingled.

- /6 Amended at Tenth Annual Meeting, February 15, 1949.
- /7 Amended at Twelfth Annual Meeting, February 24, 1951.
- /8 Amended June 2, 1959.

#### **RULES AND REGULATIONS**

#### **QUALITY OF WATER**

In the event that delivery of water is made from the Closed Basin into the Rio Grande, sufficient samples of such water shall be analyzed to ascertain whether the quality thereof is within the limits established by the Compact.

#### SECRETARY /8

The Commission, subject to the approval of the Director, U.S. Geological Survey, to a cooperative agreement for such purposes, shall employ the U.S. Geological Survey on a yearly basis, to render such engineering and clerical aid as may reasonably be necessary for administration of the Compact. Said agreement shall provide that the Geological Survey shall:

- (1) Collect and correlate all factual data and other records having a material bearing on the administration of the Compact and keep each Commissioner adviser thereof.
- (2) Inspect all gaging stations required for administration of the Compact and make recommendations to the Commission as to any changes or improvements in methods of measurement or facilities for measurement which may be needed to insure that reliable records be obtained.
- (3) Report to each Commissioner by letter on or before the fifteenth day of each month, except January, a summary of all hydrographic data then available for the current year on forms prescribed by the Commission pertaining to:
- (a) Deliveries by Colorado
- (b) Deliveries by New Mexico
- (c) Operation of Project Storage
- (4) Make such investigations as may be requested by the Commission in aid of its administration of the Compact.
- (5) Act as Secretary to the Commission and submit to the Commission at its regular meeting in February a report on its activities and a summary of all data needed for determination of debits and credits and other matters pertaining to administration of the Compact.

#### COSTS /1

In February of each year, the Commission shall adopt a budget for the ensuing fiscal year beginning July first.

Such budget shall set forth the total cost of maintenance and operating of gaging stations, of evaporation stations, the cost of engineering and clerical aid, and all other necessary expenses excepting the salaries and personal expenses of the Rio Grande Compact Commissioners.

Contributions made directly by the United States and the cost of services rendered by the United States without cost shall be deducted from the total budget amount; the remainder shall then be allocated equally to Colorado, New Mexico and Texas.

- /8 The substitution of this section for the section titled "Reports to Commissioners" was adopted at Ninth Annual Meeting, February 22, 1948.
- /1 Amended at Eleventh Annual Meeting, February 23, 1950.

Expenditures made directly by any State for purposes set forth in the budget shall be credited to that State; contributions in cash or in services by any State under a cooperative agreement with any federal agency shall be credited to such State, but the amount of the federal contribution shall not so be credited; in event any State, through contractual relationships, causes work to be done in the interest of the Commission, such State shall be credited with the cost thereof, unless such cost is borne by the United States.

Costs incurred by the Commission under any cooperative agreement between the Commission and any U.S. Government Agency, not borne by the United States, shall be apportioned equally to each State, and each Commissioner shall arrange for the prompt payment of one-third thereof by his State.

The Commissioner of each State shall report at the annual meeting each year the amount of money expended during the year by the State which he represents, as well as the portion thereof contributed by all cooperating federal agencies, and the Commission shall arrange for such proper reimbursement in cash or credits between States as may be necessary to equalize the contributions made by each State in the equipment, maintenance and operation of all gaging stations authorized by the Commission and established under the terms of the Compact.

It shall be the duty of each Commissioner to endeavor to secure from the Legislature of his State an appropriation of sufficient funds with which to meet the obligations of his State, as provided by the Compact.

#### MEETING OF COMMISSION /1, /10

The Commission shall meet in Santa Fe, New Mexico, on the third Thursday of February of each year for the consideration and adoption of the annual report for the calendar year preceding, and for the transaction of any other business consistent with its authority; provided that the Commission may agree to meet elsewhere. Other meetings as may be deemed necessary shall be held at any time and place set by mutual agreement, for the consideration of data collected and for the transaction of any business consistent with its authority.

No action of the Commission shall be effective until approved by the Commissioner from each of the three signatory States.

(Signed) M. C. HINDERLIDER
M. C. Hinderlider
Commissioner for Colorado
(Signed) THOMAS M. McCLURE
Thomas M. McClure
Commissioner for New Mexico
(Signed) JULIAN P. HARRISON
Julian P. Harrison
Commissioner for Texas

Adopted December 19, 1939.

/1 Amended at Eleventh Annual Meeting, February 23, 1950.

/10 Amended at Thirteenth Annual Meeting, February 25, 1952.