The Report Committee for Marion Hope Henley
Certifies that this is the approved version of the following report:

Dividing the Water at Fort Quitman: A Discussion of Binational Allocation and Dynamic Treaty Interpretations

APPROVED BY
SUPERVISING COMMITTEE:

Supervisor:

David Eaton

Carlos Rubinstein

Steve Niemeyer

Dividing the Water at Fort Quitman: A Discussion of Binational Allocation and Dynamic Treaty Interpretations

by

Marion Hope Henley, B.A.

Report

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Master of Public Affairs

The University of Texas at Austin

May 2016

Acknowledgements

I would like to give special acknowledgment and thanks to my three extraordinary readers, David Eaton, PhD., Carlos Rubinstein, and Steve Niemeyer. These three gentlemen shared with me their depth of expertise on transboundary water issues and I consider them life-long mentors. My colleague and friend Desireé Ledet inspired me to pursue this professional report and gave me constant guidance. Several special experts contributed to my research, including Representative Eddie Lucio, III, Stephen Mumme, PhD., of Colorado State University, and UT Reference Librarian Paul Rascoe. These exceptional individuals were generous with their time and expertise, and showed me that knowledge starts by asking the right questions to the right people.

Foreword

By Carlos Rubinstein and Steve Niemeyer

For some time and especially since 1992 when Mexico started accruing a "water debt" by falling behind in delivering Rio Grande water to the United States, many water users, regulators and elected officials noted the inappropriate allocation of Texas water to Mexico by the International Boundary and Water Commission (IBWC) at Fort Quitman in Hudspeth County, downstream of El Paso. These concerns were eventually expressed in face to face meetings, correspondence and reports.

Prior to his untimely and tragic death in September 2008, U.S. IBWC Commissioner Carlos Marin expressed to us that his current review of the erroneous Fort Quitman allocation indicated that Texas' position was well founded and appeared correct. Unfortunately, we lost so much more than resolution of this matter when Commissioner Marin passed away; we lost a dedicated public servant and personal friend who always put truth and interests of the United States and of Texas first.

Marion Henley has compiled, in this thesis, the most comprehensive review of the dispute over allocation of water at Fort Quitman. The allocation of water under both the Convention of 1906 and the 1944 Treaty has been a major focus of our professional careers. In Marion's work we found detail and facts previously not discovered or discussed, facts that are key towards resolution of this issue. Marion's work and dedication speaks to both her commitment to the truth and the complexity of the issue, an issue we hope her work will at last help resolve.

Abstract

Dividing the Water at Fort Quitman: A Discussion of Binational Allocation and Dynamic Treaty Interpretation

Marion Hope Henley, MPAff

The University of Texas at Austin, 2016

Supervisor: David Eaton

This report discusses the binational water allocation of the Rio Grande between the United States (U.S.) and Mexico. The International Boundary and Water Commission, United States and Mexico (IBWC) is charged with the administration and enforcement of treaties and other international agreements governing this watercourse, including but not limited to the Convention of 1906 and the Treaty of 1944. These two treaties establish an upper and lower segment of the Rio Grande. The 1906 Convention allocates water to Mexico and the U.S. in the transboundary segment from El Paso to Fort Quitman, about 90 miles away. The 1944 Treaty governs the watercourse from Fort Quitman to the Gulf of Mexico. Water allocation at Fort Quitman is indefinite in these treaties because the location represents a "terminus" point of the two segments. A plain-language interpretation of the treaties indicates the flows reaching this gage actually belong 100 percent to U.S., and therefore to Texas water rights holders, due to a waiver of rights by Mexico in the 1906 Convention for all flows in the upper segment. However, the established practice of the IBWC since the 1950s is to allocate those waters equally between Mexico and the U.S. ("50/50"). Research into IBWC materials reveals that this 50/50 allocation practice was established *ad-hoc*. There is no diplomatic evidence of

agreement between the nations to justify the 50/50 allocation. Indeed, the current allocation practice at Fort Quitman contradicts the actual treaty text. The IBWC has not exercised its authority to establish the 50/50 allocation lawfully. Recommendations to remedy the matter include returning all the flows at Fort Quitman to the U.S. and Texas, to mandate the 50/50 practice through legal and diplomatic policy-making mechanisms. Another issue is whether Mexico ought to compensate the U.S. for the 2.1 million acre-feet it has received since the informal water allocation began in 1958 in contradiction to the treaties.

Table of Contents

List of Tables

List of Figures

Executive Summary

This report discusses interpretations of international law concerning the binational allocation of waters of the Rio Grande basin. The United States and Mexico are separated by a 1,255 mile segment of the river known as Rio Grande in the U.S. and the Río Bravo in Mexico (hereinafter the Rio Grande). Two binational treaties allocate its flows: the upper segment is regulated by the 1906 Convention and the lower segment is regulated by the 1944 Treaty. Located about 80 miles downstream of El Paso along the border, Fort Quitman in Hudspeth County is the terminus point where the upper segment ends and the lower segment begins. The International Boundary and Water Commission, U.S. (IBWC) and the Mexico's Section (CILA), make up the binational agency formed by the 1944 Treaty charged to implement treaty mandates, including binational water allocation, dam construction, and communication between the two federal governments.

This report provides copious evidence that the IBWC has interpreted the two treaties regarding flows at Fort Quitman erroneously, by applying the Treaty of 1944's mandate of equal distribution of main-stem flow since 1958. Fort Quitman flows are actually allocated to the U.S. by the Convention of 1906, meaning 100 percent of flows at Fort Quitman belong to the United States and should not be divided.

Surface water in the U.S. (e.g., rivers and streams) is considered property of the states in which they are located. In other words, water allocated to the United States under the two treaties actually belongs to the State of Texas. The IBWC's erroneous application of the 1944 Treaty means approximately 2.1 million acre-feet of water belonging to Texas has been given to Mexico. In June 2008, the Texas Commission on Environmental Quality (TCEQ), the Texas state agency that administers surface water

rights, wrote a letter to the U.S. Commissioner of the IBWC objecting to the erroneous allocation of Fort Quitman waters and requesting the water be returned to Texas. The TCEQ stated that the IBWC was misinterpreting the treaties and dividing flows at Fort Quitman equally, an error, instead of allocating 100 percent to the United States. Correspondence between the two agencies spanned five years, during which time both sides held steadfast to conflicting treaty interpretations.

During this exchange, the U.S. Commissioner of the IBWC cited evidence to justify its practice of dividing Fort Quitman flows 50/50 including internal memoranda, Minutes (agreements between the U.S. and Mexican IBWC Sections), a plain-language reading of the two treaties, historical practice, and agency expertise. This report reviews those materials and discusses their legal relevance to binational water allocation of the Rio Grande basin. Under the 1944 Treaty, there is a *Minute Process* that allows the IBWC to make adaptive policy changes when normative gaps emerge between treaty text and contemporary needs along the border. This decision-process is investigated and found to be malleable in nature: Minutes are not indelible and enduring like constitutional amendments are to the U.S. Constitution. Minutes provide international agreements but do not require the consent of the U.S. Senate as treaties do; indeed, one Minute can alter or contradict another Minute. Therefore, the Minute Process is not dispositive evidence for establishing a binational water allocation, especially if that allocation practice contradicts a plain-language reading of the treaties.

If the IBWC is erroneously allocating fifty percent of Fort Quitman flows to Mexico that belong to Texas, what can be done to rectify the policy? Rio Grande stakeholders wishing to pursue justice may consider both diplomatic and legal action. One option is to request that the U.S. Department of State (USDoS) to investigate the matter. A second option would be for the State of Texas to file suit against the USDoS for

failure to enforce the 1906 Convention in the Supreme Court. A federal lawsuit would be costly and arduous, and U.S. courts are known to show preference to federal agencies in cases where an interpretation of law is being challenged (also known as the *Chevron deference*). Other strategies to amend the invalid allocation of Fort Quitman flows are discussed in this report, including a realistic perspective on their disadvantages and possible outcomes. Given the political nature of the issue and relations between Mexico and the U.S., this report recommends any strategy to correct the allocation include the exhaustion of all diplomatic dispute resolution mechanisms before involving domestic U.S. courts.

Introduction

This report investigates the meaning of two treaties and binational rules between Mexico and the United States where there is insufficient diplomatic or contextual evidence to interpret what appears to be straightforward language. To simplify the meaning of written words, contracts are often approached with the *plain-meaning rule*. The plain-meaning rule guides writers and readers to interpret text unambiguously, "on its face….(with a meaning that) must be determined from the writing itself without resort to any extrinsic evidence."[1,2] This approach can be made unclear by a word's context, which can alter or influence the meaning of a word. Black's Law Dictionary defines *objective meaning* as "the meaning that would be attributed to an unambiguous document…by a disinterested reasonable person who is familiar with the surrounding circumstances. A party to a contract is often held to its *objective meaning*, which it is considered to have had reason to know, even if the party subjectively understood or intended something else."[3] As with legal contracts, governmental agreements and treaties are subject to strict interpretation and the plain-language rule, which serves to preserve transparency and clear instruction. When treaties are implemented in a manner contrary to their plain language, an inquiry is warranted into the language and meaning of the agreement's text. This paper will review implementation inconsistencies of the Convention of May 21, 1906 (Convention of 1906)[4] and Treaty of February 3, 1944

1 Bryan A. Garner, ed., Black's Law Dictionary, 3rd Pocket edition (St. Paul, MN: Thomson/West, 2006). Black's Law Dictionary is the dictionary of record for the practice of American law.
2 Also known as the "plain language rule."
3 Garner, Black's Law Dictionary.
4 The Convention of May 21, 1906, provides for the distribution between the United States and Mexico of the waters of the Rio Grande in the international reach of the river between the El Paso-Juárez Valley and Fort Quitman, Texas. International Boundary & Water Commission (IBWC), "Treaties Between the U.S. and Mexico," accessed September 1, 2015, http://www.ibwc.state.gov/Treaties_Minutes/treaties.html.

(1944 Treaty),[5] specifically concerning the binational water allocation of the Rio Grande (known as the Río Bravo in Mexico) at Fort Quitman, Texas, which the International Boundary and Water Commission, U.S. (USIBWC) and Mexico's Section (CILA), are charged with implementing.

The courts have described the plain language rule as follows:

- Where the language is plain and admits of no more than one meaning, the duty of interpretation does not arise.[6]
- Where the language of an enactment is clear and construction according to its terms does not lead to absurd or impracticable consequences, the words employed are to be taken as the final expression of the meaning intended.[7]
- In all cases involving statutory construction, "our starting point must be the language employed by Congress,"... and we assume "that the legislative purpose is expressed by the ordinary meaning of the words used."[8]
- Since it should be generally assumed that Congress expresses its purposes through the ordinary meaning of the words it uses, we have often stated that "[absent] a clearly expressed legislative intention to the contrary, [statutory] language must ordinarily be regarded as conclusive."[9]
- In language similar to the "plain meaning rule," the Court observed that "where the text is clear, as it is here, we have no power to insert an amendment."[10] Also, arguing with regard to a tax treaty that "[g]iven that the Treaty's language resolves the issue presented, there is no necessity of looking further to discover 'the intent of the Treaty parties"[11]
- Justice Blackmun expressed similar sentiments in a later case. "[A] treaty's plain language must control absent 'extraordinarily strong

5 The Treaty of February 3, 1944, Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande, distributed the waters in the international segment of the Rio Grande from Fort Quitman, Texas, to the Gulf of Mexico. This treaty also authorized the two countries to construct, operate, and maintain dams on the main channel of the Rio Grande. IBWC, "Treaties Between the U.S. and Mexico," accessed September 1, 2015, http://www.ibwc.state.gov/Treaties_Minutes/treaties.html.
6 Caminetti v. United States, 242 U.S. 470, 485 (1917).
7 United States v. Missouri Pac. R.R. Co., 278 U.S. 269, 278 (1929).
8 Immigration and Naturalization Serv. v. Phinpathya, 464 U.S. 183, 189 (1984) [quoting American Tobacco Co. v. Patterson, 465 U.S. 63, 68 (1982)].
9 See Escondido Mut. Water Co. v. La Jolla Band of Mission Indians, 466 U.S. 765, 772 (1984) [quoting North Dakota v. United States, 460 U.S. 300, 312 (1983)].
10 The Amiable Isabella, 19 U.S. 1, 134 Wheat. 1, 71 (1821).
11 United States v. Stuart, 489 U.S. 353, 371 (1989) (Scalia, J., concurring).

contrary evidence.'"[12] In the same vein, *Maximov v. United States* noted that the text of a treaty controls unless "application of the words of the treaty according to their obvious meaning effects a result inconsistent with the intent or expectations of its signatories."[13]

12 See Sale v. Haitian Ctrs. Council, Inc., 509 U.S. 155, 194 (Blackmun, J., dissenting) [quoting Sumitomo Shoji Am., Inc. v. Avagliano, 457 U.S. 176, 185 (1982)].

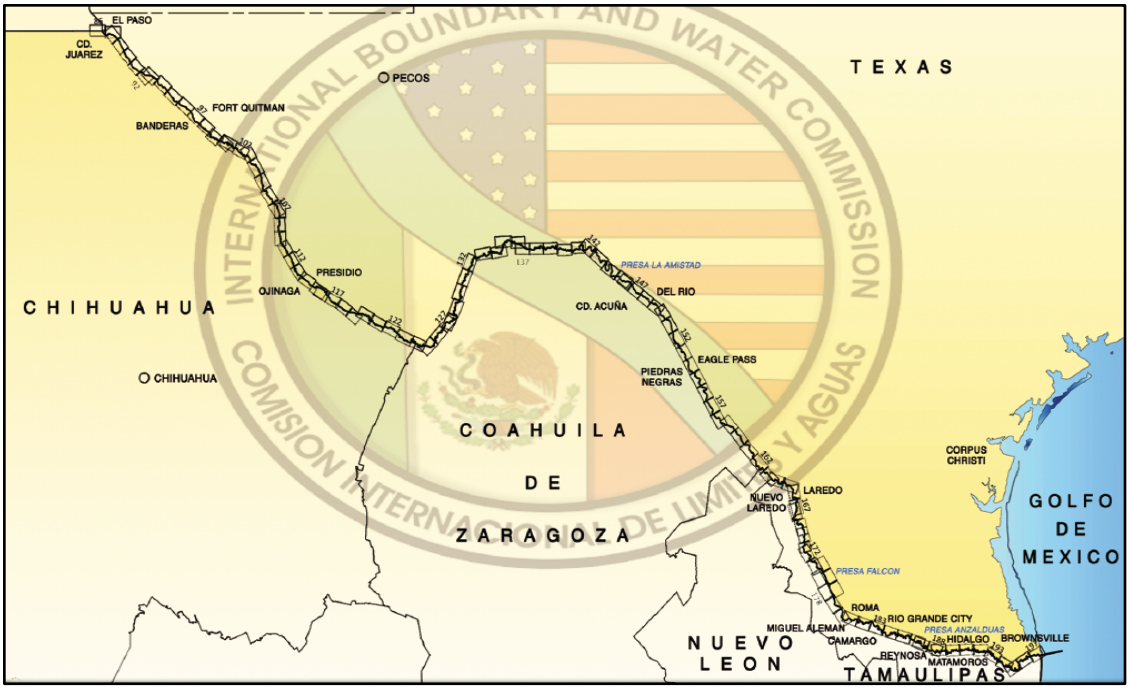
13 Maximov v. United States, 373 U.S. 49, 54 (1963).

Chapter 1: Binational Allocation of the Rio Grande

The boundary between the United States and Mexico is 1,954 miles long, and follows the Rio Grande for 1,255 miles between a point near El Paso, Texas, and the Gulf of Mexico. As shown in Figure 1.1, the river approaches Fort Quitman soon after entering Texas, where the basin is divided into an upper and lower section (in administrative terms). From its northern source until Fort Quitman, the river receives all its water from tributaries within the United States. Below Fort Quitman, most of the water in the main stem of the basin is received from Mexican tributaries. There are five major tributaries that feed the lower basin: the Conchos, the Salado, and the San Juan Rivers are in Mexico, and the Pecos and Devils Rivers are in the U.S.[14] Despite its 1,888 mile length, the Rio Grande flows through an arid and semi-arid region, and sometimes becomes dry in certain areas at times of the year. Averaging the flood and drought periods, the annual volume of the Rio Grande is about 9,380,000 acre-feet and is contributed to almost equally by Mexico and the U.S.[15] The jurisdiction of this water boundary falls under the IBWC, which is a binational agency comprised of two equal sections: a U.S. Section (USIBWC) representing the interests of the U.S. Department of State, and a Mexican Section that is part of Mexico's Ministry of Foreign Affairs (Secretaría de Relaciones Exteriores). There is one Commissioner per Section; together they are charged with implementing the binational boundary and water regulations set forth in the treaties. Their positions are both technical and diplomatic in nature.

14 Norris Hundley, "The Natural Setting," in Dividing the Waters; a Century of Controversy between the United States and Mexico (Berkeley, California: University of California Press, 1966), 8-9.
15 Ibid., 9.

Figure 1.1: Rio Grande Boundary Map



Source: International Boundary & Water Commission, US Section, "Rio Grande Boundary Maps," accessed September 1, 2015, http://www.ibwc.state.gov/GIS_Maps/Boundary_Image_Maps.html.

A predecessor agency to the IBWC was first named the International Boundary Commission (IBC) when it was established on March 1, 1889, to implement the rules adopted by the Convention of 1887. The Convention of 1887 rules were later modified by the Convention of March 20, 1905 to confirm the Rio Grande and Colorado Rivers as the international boundary.[16] Later, the IBC was charged with carrying out the Convention of 1906, which provides for the distribution of the waters of the Rio Grande between the U.S. and Mexico in the international reach of the river between the El Paso-Juárez Valley and Fort Quitman, Texas. The Convention of 1906 (Appendix A) establishes the delivery of 60,000 acre-feet annually to Mexico for agricultural use with a precise monthly schedule, and takes into account water distribution between the countries in the case of extraordinary drought. In the Convention of 1906, Article IV Mexico and the U.S.

16 IBWC, "Treaties Between the U.S. and Mexico."

confirm that in exchange for the annual 60,000 acre-feet, Mexico waives all claims to waters of the Rio Grande between the Mexican Canal (in Juárez, Mexico) and Fort Quitman, Texas:

> The delivery of water as herein provided is not to be construed as recognition by the Unites States of any claim on the part of Mexico to the said waters; and it is agreed that in consideration of such delivery of water, Mexico waives any and all claims to the waters of the Rio Grande for any purpose whatever between the head of the present Mexican Canal and Fort Quitman, Texas….

The U.S. and Mexico expanded the international watercourse regulation by entering into the Treaty of February 3, 1944 ("1944 Treaty") for the *Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande*, and applied it to the segment of the Rio Grande from Fort Quitman to the Gulf of Mexico. It authorized international dams on the Rio Grande and changed the name of the IBC to the IBWC. The 1944 Treaty allocates Rio Grande waters in Article 4, providing that Mexico receives one half of the flow reaching the main channel from Fort Quitman to the Gulf of Mexico, and two-thirds of the water that feed into the main stem from the Rio Conchos and five other tributaries in Mexico. The U.S. receives the other half of the Rio Grande between Fort Quitman and the Gulf of Mexico, and the remaining one-third of the water from the Rio Conchos and five other Mexican tributaries.[17] Analyzing the terminology associated with Fort Quitman waters in Article IV, the 1944 Treaty reads as follows (*emphasis added*, see Appendix B):

> The waters of the Rio Grande (Río Bravo) ***between Fort Quitman***, Texas and the Gulf of Mexico are hereby allotted to the two countries in the following manner:
>
> A. To Mexico:…
>
> (d) One-half of all other flows not otherwise allotted by this Article occurring in the main channel of the Rio Grande (Río Bravo), including the contributions from all the unmeasured tributaries, which are those not named in this Article, ***between Fort Quitman*** and the lowest major international storage dam.

17 1944 Treaty, Article 4 (see Appendix A or http://www.ibwc.state.gov/Files/1944Treaty.pdf).

B. To the United States:…

(d) One-half of all other flows not otherwise allotted by this Article occurring in the main channel of the Rio Grande (Río Bravo), including the contributions from all the unmeasured tributaries, which are those not named in this Article, ***between Fort Quitman*** and the lowest major international storage dam.[18]

Fort Quitman appears thirteen times in the 1944 Treaty, including the three references in Article 4 regarding the allocation of waters. The other ten references are listed below in the order in which they appear in the Treaty.

1. "WHEREAS a treaty between the United States of America and the United Mexican States relating to the utilization of the waters of the Colorado and Tijuana Rivers, and of the Rio Grande (Río Bravo) ***from Fort Quitman***, Texas, to the Gulf of Mexico, was signed by their respective Plenipotentiaries in Washington on February 3, 1944…"(A Proclamation, page 1);
2. "…delimit the rights of the two countries with respect to the waters of the Colorado and Tijuana Rivers, and of the Rio Grande (Río Bravo) ***from Fort Quitman***, Texas, United States of America, to the Gulf of Mexico, in order to obtain the most complete and satisfactory utilization thereof,…" (A Proclamation, page 2);
3. "The Commission shall study, investigate, and prepare plans for flood control works, where and when necessary, other than those referred to in Article 5 of this Treaty, on the Rio Grande (Río Bravo) ***from Fort Quitman***, Texas to the Gulf of Mexico." (Article 6, page 14);
4. "… following the placing in operation of the first of the major international storage dams which is constructed, the Commission shall submit to each Government for its approval, regulations for the storage, conveyance and delivery of the waters of the Rio Grande (Río Bravo) ***from Fort Quitman***, Texas to the Gulf of Mexico." (Article 8, pages 15-16);
5. "Either of the two countries may, at any point on the main channel of the river ***from Fort Quitman***, Texas to the Gulf of Mexico, divert and use the water belonging to it and may for this purpose construct any necessary works." [Article 9(b), page 18];
6. "Consumptive uses from the main stream and from the unmeasured tributaries ***below Fort Quitman*** shall be charged against the share of the country making them." [Article 9(c), page 19];
7. "Wherever, by virtue of the provisions of the [this Treaty], relating to the utilization of the waters of the Colorado and Tijuana Rivers and of the Rio Grande ***from Fort Quitman, Texas***, to the Gulf of Mexico, specific functions

18 Ibid., emphasis added.

are imposed on, or exclusive jurisdiction is vested in, either of the Sections of the [IBWC]…" (Protocol, page 50.);

8-10. "It is understood that the works to be built by the [U.S.]…are as follows: '(1) The joint construction of the three storage and flood-control dams on the Rio Grande ***below Fort Quitman***…(5) The joint flood-control investigations, preparation of plans, and reports on the Rio Grande ***below Fort Quitman***…(7) The joint investigations, preparations of plans, and reports on the establishment of hydroelectric plants at the international dams on the Rio Grande ***below Fort Quitman***…"(Senate vote record, pages 53-54).

In other words, the 1944 Treaty refers to the waters (1) ***from Fort Quitman***[19] seven times in regards to general use, flood works, reporting, and functions of the IBWC, (2) ***below Fort Quitman***[20] three times in regards to construction and operation of works and reporting, and (3) ***between Fort Quitman*** and the Gulf of Mexico three times in regards to water allocation. It is significant that *between* (with regards to Fort Quitman) is only used in Article 4, the article that discusses water allocation.

Historical precedent shows interaction between the 1906 Convention and 1944 Treaty. During the 1944 Treaty negotiations, Mexico expressed to the U.S. its desire to increase the 60,000 acre-feet provided for in the 1906 Convention by demanding more upper segment water, insisting "…on one-half of the run-off entering the stream between El Paso and Fort Quitman." Original drafter and former USIBWC Commissioner Lawson denied Mexico's request, "contending the earlier treaty had settled the question."[21] He further pointed out that granting Mexico's wish for more water from the upper segment would change the ownership of water in the Rio Grande downstream from Mexico's delivery point under the 1906 Convention (Elephant Butte Reservoir) and that upstream

19 The Spanish version uses the expression "desde Fort Quitman, Texas hasta el Golfo de México," which translates to English as "from Fort Quitman to the Gulf of Mexico," as in the English version of the Treaty. SpanishDict, "Translate," accessed July 21, 2015, http://www.spanishdict.com/translate/desde, http://www.spanishdict.com/translate/hasta.

20 There is no Spanish translation found for the U.S. Senate vote portion of the 1944 Treaty, in which "below Fort Quitman" was iterated.

21 Norris Hundley, Dividing the Waters: a Century of Controversy between the United States and Mexico (Berkeley: University of California Press, 1966), 131.

of Fort Quitman was not included in the 1944 Treaty.[22] As Glen Jarvis has summarized: "Water in the Rio Grande between El Paso and Fort Quitman, including return flows from each country, is 100 percent owned by the U.S."[23]

According to various IBWC Minutes[24] and water bulletins published on the IBWC website, the agency has allocated to Mexico fifty percent of the waters at Fort Quitman since 1958 despite that lack of policy justification, amounting to approximately 2.1 million acre-feet (see Appendix C for yearly totals).[25] It appears that the IBWC is failing to enforce the treaties properly throughout a time when the state has faced droughts worse than the drought of record.[26] Since 1992 Mexico at various times has failed to honor its obligations for delivery of Rio Grande water to the United States.[27] Correspondence with USIBWC Commissioner Edward Drusina about this misallocation has not clarified why the IBWC continues to allocate waters 50/50 at Fort Quitman. Commissioner Drusina cites certain IBWC Minutes, interoffice memos, and technical reports to justify the 50/50 allocation at Fort Quitman, but none of these materials address the key issue of the actual language in the Treaties of 1906 and 1944.

This report assesses these materials in terms of the Rio Grande treaties as to whether there is any justification for the 50/50 allocation practice. This report includes a

---

22 Ibid., see also Glenn Jarvis, "Legal and Institutional Aspects of International Water Allocation on the Rio Grande" (Presented at the Binational Rio Grande Summit: Cooperation for a Better Future, Reynosa, Tamaulipas, and McAllen, Texas, November 2005).

23 Glenn Jarvis, "Legal and Institutional Aspects of International Water Allocation on the Rio Grande" Jarvis, Glenn, supra note 22.

24 Pursuant to Article 24 of the 1944 Treaty, the IBWC, U.S. and Mexico, records its decisions in the form of Minutes, which also are used for dispute resolution and require the signatures of the Commissioners of both Sections.

25 Water bulletins are posted annually pursuant to Article 8 of the 1944 Treaty, yet have not been posted since 2006. (See Appendix C and http://www.ibwc.state.gov/Water_Data/water_bulletins.html for more details.)

26 National Public Radio, State Impact, "Everything You Need to Know About the Texas Drought," accessed September 1, 2015, https://stateimpact.npr.org/texas/tag/drought/.

27 Allie Alexis Umhoff, "An Analysis of the 1944 U.S.-Mexico Water Treaty: Its Past, Present, and Future," Environmental Law and Policy Journal 32, no. 1 (2008): 81.

discussion about the natures of treaties and constitutions. For example, the 1944 Treaty behaves in certain aspects like a constitution (in its brevity, requirement for interpretation, longevity, and interpretation process), which actually serves to undermine the plain language of the Treaty's text and may have resulted in the misallocation of Fort Quitman's water.

Chapter 2: IBWC Mandate Overview

Treaties govern IBWC's binational management of the Rio Grande. The Convention of 1906 requires that the U.S. deliver 60,000 acre-feet/year of water to Mexico, just above Juárez (near El Paso) for agricultural use. Mexico's water under this treaty is diverted at the Acequia Madre Canal in El Paso/Ciudad Juárez.[28] The 1944 Treaty pertains to the binational allocation of the surface waters of the Río Grande from Fort Quitman to the Gulf of Mexico, hereafter referred to as the lower segment. This chapter reviews these treaties and the Convention of 1889. This review focuses on treaty terms that affect water allocation of the Rio Grande at Fort Quitman and discusses powers given to the IBWC that affect the binational allocation of waters.

CONVENTION OF 1889[29]

Although watercourse agreements between the two countries predate the Convention of March 1, 1889, this treaty established the International Boundary Commission (IBC) to administer the rules set forth in the Convention of 1884,[30] which established a method for marking the international boundary using the Rio Grande and Colorado River.[31] The IBC consisted of a U.S. and Mexican Section created to prevent or

28 David J. Eaton and David Hurlbut, Challenges in the Binational Management of Water Resources in the Rio Grande-Río Bravo (Austin, Tex.: Lyndon B. Johnson School of Public Affairs, University of Texas at Austin, 1992), 4.

29 IBWC, Convention of March 1, 1889: Convention Between the United States of America and the United States of Mexico, To facilitate the carrying out of the Principles contained in the Treaty of November 12, 1884, and to avoid the difficulty occasioned by reason of the changes which take place in the beds of the Rio Grande and Colorado Rivers, accessed November 18, 2016, http://www.ibwc.state.gov/Files/TREATY_OF_1889.pdf. (Hereafter referred to as the Convention of 1889.)

30 IBWC, Convention of November 12, 1884: Convention Between the United States of America and the United States of Mexico, Touching the International Boundary Line where it follows the Bed of the Rio Grande and the Rio Colorado, accessed November 18, 2016, http://www.ibwc.state.gov/Files/TREATY_OF_1884.pdf. (Hereafter referred to as the Convention of 1884.)

31 The Convention of 1884 was later modified by the Banco Convention in 1905 to retain the Rio Grande and the Colorado River as the international boundary.

resolve conflicts as the boundary line changed through natural shifts in the river flow. The Presidents of the two countries appointed their respective Commissioners and chief engineers for each Section.[32]

The Commissioners were given authority to request research reports, subpoena witnesses, and settle disputes upon approval from the foreign ministries of their countries. The 1889 Convention's text regarding conflict resolution was used in later treaties and reads as follows:

> If both Commissioners shall agree to a decision, their judgment shall be considered binding upon both Governments, unless one of them shall disapprove it within one month reckoned from the day which it shall have been pronounced. In the latter case, both Governments shall take cognizance of the matter, and shall decide it amicably...The same shall be the case when the Commissioners shall fail to agree concerning the point which occasions the question, the complaint or the change, in which case each Commissioner shall prepare a report, in writing, which he shall lay before his Government. (Convention of 1889, Article VIII)

In other words, agreements between the two Commissioners had the force of treaty unless the respective foreign ministries (the U.S. Department of State and the Secretaría de Relaciones Exteriores in Mexico) disagreed within a month's time. Any, dispute that remained unresolved by the Commissioners would be passed to the foreign ministries for resolution.

The IBC was only to remain in effect for five years. Subsequent treaties renewed the IBC until it was established indefinitely per mandate in 1900:

> ...whereas the period fixed by Article IX of the Convention of March 1, 1889, extended by the Conventions of October 1, 1895, November 6, 1896, October 29, 1897, December 2, 1898, and December 22, 1899, expires on the 24th of December 1900;....the two High Contracting Parties deem it expedient to indefinitely continue the period fixed [by the aforementioned treaties] in order that the International Boundary Commission may be able to continue the examination and decision of the cases submitted to it.…The Commission established thereunder shall continue in force and effect indefinitely…

32 Convention of 1889, Article II.

- Convention of November 21, 1900

CONVENTION OF 1906

In the early twentieth century, both Mexico and the U.S. developed plans use of the Rio Grande due to settlements and agriculture.[33] To manage the shared surface waters, the two countries entered into their first water distribution treaty, provided for by the ratification of the Convention of May 21, 1906, for the equitable distribution of the waters of the Rio Grande for irrigation purposes. As stated in Chapter 1, the Convention of 1906 established the delivery of 60,000 acre-feet annually to Mexico for agricultural use with a precise monthly schedule, and it remains in effect to this day. The allocation takes into account water distributions between both countries in the case of extraordinary drought, although the term "extraordinary drought" has never been defined in operational language. Article IV states that in exchange for the annual 60,000 acre-feet, Mexico waives all claims to waters of the Rio Grande from the Mexican Canal (at Ciudad Juárez, Mexico) to Fort Quitman, Texas.

> The delivery of water as herein provided is not to be construed as a recognition by the United States of any claim on the part of Mexico to the said waters; and it is agreed that in consideration of such delivery of water, Mexico waives any and all claims to the waters of the Rio Grande for any purpose whatever *between the head of the present Mexican Canal and Fort Quitman, Texas*, and also declares fully settled and disposed of, and hereby waives, all claims heretofore asserted or existing, or that may hereafter arise, or be asserted, against the United States on account of any damages alleged to have been sustained by the owners of land in Mexico, by reason of the diversion by citizens of the United States of waters of the Rio Grande.
> - Convention of 1906, Article IV (*emphasis added)*

No changes in the IBC structure were made under this Convention; both nations empowered the IBWC under the 1944 Treaty to implement the Convention of 1906 indefinitely.

---

33 IBWC, "History of the International Boundary and Water Commission," accessed September 14, 2015, http://ibwc.state.gov/About_Us/history.html.

1944 TREATY

The Treaty of February 3, 1944, for the *Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande/Río Bravo* (1944 Treaty) distributed the international waters of the Rio Grande from Fort Quitman to the Gulf Mexico (hereafter termed "lower segment"). This treaty brought the IBC into its modern era, renaming it the IBWC, establishing an allocation of binational waters, authorizing the construction of international dams, and creating a diplomatic framework still in existence. The 1944 Treaty serves as the bedrock of water-border affairs between the U.S. and Mexico and affects the management of water rights in four U.S. states and six states of Mexico that border the United States. Its provisions affect half a dozen interstate compacts and special arrangements for the management of interstate rivers.

As IBWC expert Stephen P. Mumme points out, "[t]he scope and reach of the [1944 Treaty] as it sets the limits and possibilities of growth in each country are simply staggering."[34] Mumme wrote that the 1944 Treaty is enduring due to three important factors: (1) it pertains to water, a real property that is central to public health and economic well-being; (2) the treaty affects the lives and livelihoods of people across seven U.S. states and at least six Mexican states; and (3) the treaty is central to the growth of two of the five most politically and economically powerful U.S. states, California and Texas.[35]

The 1944 Treaty establishes the water delivery obligations between the two countries in regards to the Colorado and Tijuana Rivers, and the Rio Grande.[36] It provides for temporary exemptions to its water allocation requirements,[37] and includes a hierarchy

34 Ibid.
35 Stephen P. Mumme, "Revising the 1944 Water Treaty: Reflections on the Rio Grande Drought and Other Matters," Journal of the Southwest 45, no. 4 (2003): 650.
36 1944 Treaty, art. 4.
37 1944 Treaty, arts. 4, 10.

of uses to guide the IBWC in deciding upon joint uses of the international waters.[38] It also grants the IBWC a dispute-resolution mechanism called the Minute, which is central to comprehending the agency's decision-making on Fort Quitman water allocation. The 1944 Treaty covers a variety of international watercourse topics and IBWC mandates. This report focuses on the water allocation at Fort Quitman on the Rio Grande.

Rio Grande Water Allocation

Figure 2.1: Rio Grande Map with Reservoirs

Source: Sandia National Laboratories, "Data Collection for Cooperative Water Resources Modeling in the Lower Rio Grande Basin, Fort Quitman to the Gulf of Mexico," Issued by Sandia National Laboratories, operated for the United States Department of Energy by Sandia Corporation, October 2004.

Article 4 allocates the flows (including those of tributaries) of the Rio Grande (see Figure 2.1). Mexico is allocated: (1) all the water reaching the main channel of the Rio Grande from the Alamo and San Juan Rivers, including return flows from the irrigation of those rivers; (2) two-thirds of the flows reaching the main channel of the Rio Grande from the Conchos, San Diego, San Rodrigo, Escondido and Salado Rivers, and the Las

38 1944 Treaty, art. 3.

Vacas Arroyo, subject to the requirement that the remaining one-third shall not be less than 350,000 acre-feet per year on average; and (3) 50 percent of all other flows in the main channel of the Rio Grande/Río Bravo "*between* Fort Quitman and the lowest international storage dam."[39,40] The United States is allocated: (1) all the waters of the Rio Grande main channel from the Pecos and Devils Rivers, Goodenough Spring and Alamito, Terlingua, San Felipe and Pinto Creeks; (2) one-third of the main channel flows from the Conchos, San Diego, San Rodrigo, Escondido, and Salado Rivers and Las Vacas Arroyo, which must be at least 350,000 acre-feet annually in five-year cycles; and (3) the other half of the main channel Rio Grande flows "*between* Fort Quitman and the lowest international storage dam."[41] In other words, Fort Quitman is the northern terminus point for water allocation of the lower Rio Grande basin.[42] A summary of the pertinent allocations made in this treaty is provided in Table 2.1.

39 The lowest major international storage dam is Falcon Dam. IBWC, "Falcon Dam & Power Plant," accessed September 14, 2015,
http://www.ibwc.state.gov/Organization/Operations/Field_Offices/Falcon.html.
40 1944 Treaty, art. 4. (emphasis added).
41 1944 Treaty, art. 4. Representative Eddie Lucio III, interview by author, March 15, 2016.
42 See the Black's Law Dictionary definition of between. Supra note 3.

Table 2.1: 1944 Treaty's Water Allocation of the Rio Grande

Mexico	United States
All waters in the main stem from the Río San Juan and Río Alamo, including irrigation return flows from these two rivers.	All waters reaching the main stem of the Rio Grande from the following tributaries: Pecos and Devils Rivers, Goodenough Springs, Alamito, Terlingua, San Felipe, and Pinto Creeks.
Half the flows in the main stem below Falcon Dam	Half the flows in the main stem below Falcon Dam
Two-thirds of flows in the main stem from the Ríos Conchos, San Diego, San Rodrigo, Escondido, and the Las Vacas Arroyo (subject to U.S.'s allocation of at least 350,000 acre-feet average annually per five-year cycle).	One-third of flows in the main stem from the Río Conchos, San Diego San Rodrigo, Escondido, Salad, and the Las Vacas Arroyo, *provided* this third is not less than 350,000 acre-feet/year, as an average amount per five-year cycles.
Half of all flows in the main stem not otherwise allocated in the Treaty, including contributions from all unmeasured tributaries between Fort Quitman and Falcon Dam.	Half of all flows in the main stem not otherwise allocated in the Treaty, including contributions from all unmeasured tributaries between Fort Quitman and Falcon Dam.

IBWC Structure and Jurisdiction

The 1944 Treaty functions as the modern mandate for the IBWC (Commission) and continues to define the limits and possibilities for the present Commission.[43] The Commission includes two national sections, each accountable to the foreign ministries of their respective countries. The U.S. Section is overseen by the U.S. Department of State, while Mexico's Secretaría de Relaciones Exteriores (SRE) controls the Mexico Section. An important distinction between the jurisdictions of the two countries is that waters of the U.S. are regulated by the states in which they are located, while the waters of Mexico are centrally regulated by its federal government. Each Section is led by a Commissioner (required to be an engineer), two Principal Engineers, a legal advisor, and a secretary;

43 Stephen P. Mumme, "Innovation and Reform in Transboundary Resource Management: A Critical Look at the International Boundary and Water Commission, United States and Mexico," Natural Resources Journal 33 (1993): 94.

this administration has diplomatic privileges and immunities in the territory of the other country.[44]

Figure 2.2: U.S.–Mexico Continental Boundary

Source: International Boundary & Water Commission, US Section, "U.S.-Mexico Boundary," accessed September 15, 2015, http://www.ibwc.state.gov/Files/US-Mx_Boundary_Map.pdf.

The jurisdiction of the Commission is confined to matters in the boundary region only (see Figure 2.2). The Commission's jurisdiction is defined as "exclusive and superior to the claims of any and all domestic agencies."[45] Its functions are explicitly defined in the treaty, and fall within three broad categories: liaison-investigation, adjudication, and administrative.[46,47]

1. **Liaison-investigation:** The Commission is charged with the communication and coordination of the activities between both sections; the initiation, investigation, and planning deemed necessary for the implementation of goals

44 1944 Treaty, art. 2; and Umhoff, "An Analysis of the 1944 U.S.-Mexico Water Treaty," 76.
45 Mumme, "Innovation and Reform in Transboundary Resource Management," 95.
46 M. Jamail and Stephen Mumme, "The International Boundary and Water Commission as a Conflict Management Agency in the U.S.-Mexico Borderlands," Social Science Journal 19 (1982): 47-48.
47 Mumme, "Innovation and Reform in Transboundary Resource Management," 95.

specified by the 1944 Treaty and other agreements; the agency also supplies information to the foreign ministries upon request.[48]

2. **Adjudication:** Article 24 allows the Commission to settle all differences that may arise from interpreting the 1944 Treaty, subject to the approval of the two Governments. These agreements are memorialized in the form of Minutes (referred also herein as the "Minute Process"), which will be discussed in Chapter 3.
3. **Administrative:** The Commission must manage the activities necessary for the implementation and enforcement of the 1944 Treaty, all other subsidiary agreements, conventions, and compacts that fall under IBWC jurisdiction. This function is carried out independently by the national sections working together with the consent of the two national governments. "The Commission and its sections are responsible for boundary demarcation, channel rectification, construction and maintenance of flood control, water storage, hydroelectric, and drainage works, construction and maintenance of sanitation and sewage facilities, scheduling water deliveries under the Treaty, stream gauging, and the diversion of waters for domestic functions."[49,50]

CHALLENGES FACED BY THE IBWC

Experts and stakeholders often laud the 1944 Treaty as an international success in terms of its diplomacy and dispute resolution. The IBWC continues to facilitate the resolution of issues arising under the 1944 Treaty, even though the processes can take several years and may leave some stakeholders dissatisfied. Several controversies have generated criticism of the Commission and the 1944 Treaty's efficiency. For example, the U.S. has complained about Mexico's failure to deliver its water commitment from the Rio Grande for more than ten years, bringing into question the Commission's ability to

48 1944 Treaty, art. 24.
49 1944 Treaty, arts. 2-24.
50 Mumme, "Innovation and Reform in Transboundary Resource Management," 95.

enforce the 1944 Treaty. Mexico has objected to the increasing salinity in the Colorado River that reduced the value of its water.[51] Disagreements in both countries have resulted from the vagueness of drought protocol, and the treatment of nontraditional uses such as those related to ecological protection and biodiversity of the natural habitat. Many stakeholders question the Treaty's ambiguities related to public participation and the IBWC's responsiveness to public interests.[52] These subjects have been extensively reviewed by experts, and will not be discussed in this report as they are not relevant to Fort Quitman water allocation.

51 Umhoff, "An Analysis of the 1944 U.S.-Mexico Water Treaty," 77.
52 Mumme, "Revising the 1944 Water Treaty," 651.

Chapter 3: A Brief History of the Minute Process

As noted in the last chapter, the Convention of 1889 mandated *reports* to serve as a record for binational agreements.[53] Reports were recorded in the form of journal entries and memorialized formal meetings between the two Sections. The Convention of 1889's regulations contained detailed instructions regarding the keeping of those records, with originals of all records (e.g. minutes, reports, journals) to be located in each country in both English and Spanish.[54] Published minutes and journals were customarily divided vertically, with parallel columns containing the text in each language.[55] Article 4 required that both Commissioners sign to approve each record. The respective governments could disapprove of any binational agreement made within one month before the agreement became binding.[56] The Convention of 1889 required that "the record shall embrace everything material that occurs at each meeting."[57] These records varied greatly in length depending on the meeting. For example, routine meeting records often included only a few lines, whereas the rectification plans for El Paso Valley was over eight pages of lengthy witness testimony recorded verbatim.[58,59]

U.S. Commissioner Anson Mills (1894-1914) called the binational meeting records *joint journal*s, but they were later termed *Minutes* in 1922 by Commissioner George Curry. However, "the difference [between the two terms] is not material."[60] Commissioner Curry is regarded as having expanded the functions, powers, organization,

53 Convention of 1889, art. VIII.
54 Convention of 1889, Rules and Regulations, arts. I-V.
55 Charles Timm, "Some Observations on the Nature and Work of the International Boundary Commission, United States and Mexico," The Southwestern Social Science Quarterly 15, no. 4 (1935): 291.
56 Convention of 1889, art. VIII.
57 Convention of 1889, Rules and Regulations, art. III.
58 See Minute No. 83, Aug. 4, 1926.
59 Timm, "Some Observations on the Nature and Work of the International Boundary Commission," 292.
60 Ibid.

and influence of the IBC in the 1920s.[61] In late 1923, he was instructed by the U.S. Department of State to ratify the ten Minutes he had recorded between October 3, 1922, and November 23, 1923, as evidenced by Minutes 11 and 12 (see Appendix D and E, respectively).[62] Minute 11 states that "Minutes Nos. 3, 4, 5, 6, 7, 8, 9, (and) 10...were read, approved and signed."[63] Minute 12 memorialized Curry's instructions to ratify all Minutes and establish the Minute Process as a record for formal meetings:

> The American Commissioner said: that as the former sessions to which minutes No. one to eleven correspond, dated October three, October sixteen, and November fourteen, nineteen hundred and twenty two, were considered as informal by his Government, due to the state of diplomatic relations at those dates between both countries, considers it necessary to ratify them, and he does so at this session, as the diplomatic relations have been renewed and he has instructions from his Government to hold formal sessions. The Mexican Commissioner accepted the ratification made by the American Commissioner.[64]

With Minutes 12, the Minute Process was established as a matter of principle. By the time the 1944 Treaty officially established the procedure as an IBWC mandate, the IBC had ratified 176 Minutes.

Commissioner Curry's effort to formalize the Minute's predecessor joint journals was an attempt to make the IBC's functions more systematic and treat the journals as an official statement of record. U.S. Commissioner Lawson, a drafter of the 1944 Treaty, sustained the effort and carried the practice over into the 1944 Treaty.[65] The 1944 Treaty essentially deputized the two Sections, employing Minutes as a mechanism for

61 Ibid., 281.
62 Ibid.
63 Minute 11, Nov. 14, 1922 (typos are true to original document).
64 Minute 12, Nov, 27, 1922 (typos are true to original document).
65 1944 Treaty, art. 24.

establishing binational agreements for the approval of the foreign ministries.[66] The 1944 Treaty text pertinent to the Minute Process states:

> Article 24. The [IBWC] shall have, in addition to the powers and duties otherwise specifically provided in this Treaty, the following powers and duties…(d) To settle all differences that may arise between the two Governments with respect to the interpretation or application of this Treaty, subject to the approval of the two Governments. In any case in which the Commissioners do not reach an agreement, they shall so inform their respective governments reporting their respective opinions and the grounds therefor and the points upon which they differ, for discussion through diplomatic channels and for application where proper of the general or special agreements which the two Governments have concluded for the settlement of controversies.
>
> Article 25. ...Decisions of the Commissioner shall be recorded in the form of Minutes done in duplicate in the English and Spanish languages, signed by each Commissioner and attested by the Secretaries, and copies thereof forwarded to each Government within three days after being signed. Except where the specific approval of the two Governments is required by any provision of this Treaty, if one of the Governments fails to communicate to the Commission its approval or disapproval of a decision of the Commission within thirty days reckoned from the date of the Minute in which it shall have been pronounced, the Minute in question and the decisions which it contains shall be considered to be approved by that Government. The Commissioners, within the limits of their respective jurisdictions, shall execute the decisions of the Commission that are approved by both Governments. If either Government disapproves a decision of the Commission the two Governments shall take cognizance of the matter, and if an agreement regarding such matter is reached between the two Governments, the agreement shall be communicated to the Commissioners, who shall take such further proceedings as may be necessary to carry out such agreement.

The 1944 treaty grants judiciary power to the IBWC for interpreting the treaty. The Minutes became a tool to record those interpretations.

DISCUSSION

The Minute Process allows the IBWC to create new substantive procedure as gaps emerge between the 1944 Treaty's expressed provisions and contemporary needs. This

66 Stephen Mumme, Ph.D., telephone interview by author, July 19, 2015. (Dr. Mumme approves of the use of his comments and opinions stated during the interview for this project; more information regarding his background and expertise in this matter can be found at http://polisci.colostate.edu/author/smumme/.)

tool for treaty interpretation helps prevent the obsolescence of the 1944 Treaty under constantly evolving social, political, economic, and technological conditions.[67] Debate exists about the judicial power inherent in IBWC's Minute Process. Numerous stakeholders testified before the Senate Foreign Relations Committee in 1945 regarding their concerns about the implications from treaty modification through the Minutes Process. Below is an excerpt from the testimony of Harry Horton, a member of the special counsel on water to the Imperial Irrigation District:[68]

> The treaty authorizes the American and Mexican Commissioners, with only the approval of the respective Secretaries of State of United States and Mexico, and without the knowledge, advice, or consent of the United States Senate or Congress to make and perform agreements between the two Nations. It, in effect, authorizes the two Commissioners and the two Secretaries of State to now and hereafter bind the two Governments as if by treaty but without Senate or congressional approval.
>
> The treaty pre-commits the United States to building of certain works on the Rio Grande (art. 5) and on the Colorado (art. 23) Rivers.
>
> However, throughout the treaty the Commission, or Commissioners with approval *only* of the respective Secretaries of State, are authorized by "agreement" to change the number and location of the agreed works and agree on additional works for conservation, storage, and regulation of water on the lower Rio Grande and tributaries (art. 5); provide and operate hydroelectric plants on the Rio Grande (art. 7); provide new and take over existing works on the Colorado River and tributaries (art. 12-14); do as it may hereafter determine with the Tijuana River (art. 16); make special agreements concerning hydroelectric power development, disposition, and export (art. 19); acquire properties, and discharge the duties and powers entrusted to the Commission by this and other treaties and *agreements* and to carry into execution and prevent the violation of the treaties and agreements

67 Robert J. McCarthy, "Executive Authority, Adaptive Treaty Interpretation, and the International Boundary and Water Commission, U.S.-Mexico," University of Denver Water Law Review 14 (2011): 197.

68 Harry W. Horton, United States-Mexican Treaty of February 3, 1944, and Protocol of November 14, 1944: Partial Analysis of Jurisdiction, and Powers Vested in Commission and American Commissioner, and Analysis of Some Terms Making Treaty Ambiguous and Unworkable (Hearings before the Committee on Foreign Relations United States Senate, 79th Congress, 1st Session on Treaty with Mexico Relating to the Utilization of the Waters of Certain Rivers, Part 3: February 5-10, 1945), 818-820.

(art. 24 (c)); make their own rules of procedure, and render and "*execute*" their decisions (art. 25).

These references to "agreements" as distinguished from treaties immediately raise the question as to just what are such "agreements." There are, of course, executive agreements which can be made between the Presidents of the two Governments. Such agreements are in most cases subject to congressional control. At least their making can be restricted by Congress if it so desires. In this treaty, "*agreements*" between the two Commissioners approved *only* by the respective Secretaries of State are provided for and *this power* is given in perpetuity and *beyond congressional control*. No reservations whatsoever of congressional control is provided for in this treaty.

An even more startling feature is that both the United States and Mexico have established a precedent with respect to this treaty that is necessary for the United States to have Mexico's agreement when and if, as to our domestic handling of treaty matters, we desire to change form the provisions of the [1944 Treaty]. In order to provide that a Federal agency other than the American Commissioner in question could be utilized to operate works in the United States used only in part for treaty performance, a protocol or amendment to the treaty was, on November 14, 1944, agreed to between the two countries. This, it is submitted, is concrete evidence of their permanency of the provisions of the treaty and of the lack of congressional control. Otherwise, why the protocol or the necessity of Mexico's consent to our own determination to, in the United States, use a Federal agency other than the Commission or American Commission in certain circumstances?

Under treaties between the United States and Mexico concerning boundary and water matters containing much less authority to the Commission, the Commissioners and Secretaries of State have established a practice of making *agreements* between the two countries have the force of a treaty, but without Senate approval – In fact, without the necessity of even knowledge on the part of Congress.

Insomuch as article 24 (d) gives the [IBWC] full power to settle all matters concerning the "interpretation or application of this Treaty" there seems to be little doubt that once ratified the treaty would not only vest all these broad powers in the Commission and Commissioners but by ratification of the treaty these matters would be put beyond the control of *Congress* and the *courts*…This treaty places in the hands of the Commissioners and the Secretaries of State not only this treaty but "other treaties and agreements" between the two countries (art. 24 (c)). It is presumed that all treaties are of public record. Just what effect the broad powers of this treaty will this treaty will have as to other treaties has not been determined. However, there is not only the power of the Commission to make future binding agreements to be considered. What agreements, executive and

> otherwise, are there now existent that this Commission is given the jurisdiction and administration of in perpetuity? This certainly should be determined, and is within the knowledge of the proponents only.
>
> Certainly any treaty between the two countries should reserve to Congress control over the Commission and its ability to commit this Government. Also, full power should be reserved to Congress to determine our own internal affairs concerning treaty performances and not quitclaim those powers to an international commission in perpetuity so that we have to get a foreign nation's consent to determine what agencies in the United States may perform internal functions…

In discussing the limited review that domestic courts would have over the 1944 Treaty, the same testimony discussed Supreme Court case *Z and F Corporation v. Hull*.[69] The case challenged a decision made by the Mixed Claims Commission, a binational agency between Germany and the U.S. established by the War Claims Act of 1928. The courts sided with the agency, claiming that unless a reservation is made in the governing treaty, matters made the subject of the treaty provisions are political. The report further warned senators of the dangers associated with the "…placing, by broad general language, of internal domestic affairs of the United States in the hands of treaty agents." It goes on to say that the Minute Process places domestic affairs "beyond Congress and courts [and should] never be tolerated. It is contrary to all concepts of our system of Government…it is unthinkable."[70] Further, Dr. Charles Timm, an author of the Department of State Bulletin and professor of political science at The University of Texas at Austin, testified that the vast decision-making authority given to the IBWC rendered "the treaty undesirable from any viewpoint. [The Minute Process provisions] are not consistent with the spirit of our institutions."[71] Other testimony, including that of

69 Z and F Corporation v. Hull, 114 Fed. 2nd 464 and the United States Supreme Court decision, 311, U.S. 470, affirming same.
70 Ibid., 836.
71 Charles Timm, Testimony (Hearings before the Committee on Foreign Relations United States Senate, 79th Congress, 1st Session on Treaty with Mexico Relating to the Utilization of the Waters of Certain Rivers, Part 3: February 5-10, 1945), 671-672.

senators, also reflected some concern over the Commission's IBWC authority. However, the 1944 Treaty was ratified and included the Minute Process provisions.

Despite the controversy, the IBWC has exercised its judicial functions throughout the life of the agency. In the case of Fort Quitman water, current U.S. Commissioner Drusina cites procedures established in Minutes as validation for a water allocation practice that appears to be in expressed contradiction to the treaties' text (discussed in more depth in Chapters 5 and 6). Minutes have also been used to reconstruct Mexico's water obligation to the U.S. throughout the recent Rio Grande water debt,[72] despite explicit allocation schedules expressed in the 1944 Treaty.[73] Minutes may contradict, amend, or supplement previously ratified Minutes, which demonstrates their ever-evolving and malleable nature.[74] Minutes are synonymous with a "snapshot in time" of the IBWC's viewpoint and interpretation of the 1944 Treaty reflecting contemporary political and social contexts. Minutes are not indelible; they are subject to change and reversal, and they do not have the enduring quality of actual 1944 Treaty text.[75]

72 Starting in the regional drought of the 1990s, the U.S. argued that Mexico failed to meet its obligations for delivery of 360,000 acre-feet of the Rio Grande to the U.S. for over two five-year cycles, resulting in a 270,996 water deficit as of December 20, 2014. For more information on Mexico's water debt, see Carlos Rubinstein, "The Price Texas Pays for Mexico's Water Debt," Texas Water Journal 6, no. 1 (2015): 1-10.
73 See for example, Minute 234, December 2, 1969.
74 Mumme interview, July 19, 2015.
75 Ibid.

Chapter 4: Dynamic Treaty Interpretation

USIBWC Commission Drusina has claimed that the 50/50 allocation of Fort Quitman waters was at least partly established in agreements made through the Minute Process (as stated in his correspondence discussed in Chapter 5). This report argues that the indelible nature of the Minute Process renders it non-dispositive for water allocation practices, so Commissioner Drusina's argument is not justified. One cannot compare the enduring nature of constitutional amendments to the indelible Minute Process of the 1944 Treaty. This section discusses the differing natures of treaties and constitutions and analyzes their amendment processes. Minutes are not approved by the U.S. Senate and can be passed in a relatively short period of time. Minutes can contradict or change agreements made in previously ratified Minutes. Conversely, the U.S. Constitution can only be amended or appended through a lengthy and laborious legislative process, and constitutional changes have a permanent nature.

WHAT IS A TREATY?

A treaty is a binding agreement between two or more separate nations.[76] Treaties can be called different names such as international conventions, international agreements, covenants, final acts, charters, memoranda of understanding, protocols, pacts, accords, and constitutions for international organizations. These different names typically have no material significance in international law. In the United States, treaties undergo a specific processes of ratification: (1) the Secretary of State authorizes negotiation with another nation; (2) U.S. representatives negotiate; (3) the nations agree on terms, and sign the treaty upon authorization from the Secretary of State; (4) the President submits the treaty to the U.S. Senate; (5) the Senate Foreign Relations Committee considers the treaty

76 Duke University, "U.S. Treaties & Agreements," accessed September 17, 2015, https://law.duke.edu/ilrt/treaties_2.htm.

and reports to the Senate; (6) the Senate considers and approves the treaty upon a two-thirds majority vote; and (7) the President proclaims entry into force.[77]

WHAT IS A CONSTITUTION?

The U.S. Constitution is the supreme law of the United States. "[It] is the source of all government powers, and also provides important limitations on the government that protect the fundamental rights of United States citizens."[78] The Constitution specified a process by which it could be amended. To prevent arbitrary changes, this process is quite onerous and has only been accomplished twenty-seven times since its enactment in 1789.[79] An amendment must be proposed by a two-thirds vote in both Houses of Congress, or two-thirds of the states may request an amendment and form state conventions. The proposed amendment must then be ratified by three-fourths of the state legislatures, or by three-fourths of the conventions called for by each state proposing the ratification.[80] In other words, it is difficult to amend the U.S. Constitution; amendments undergo great scrutiny and can take years or decades and most draft amendments are not ratified. Once ratified, constitutional amendments become "like the constitution's text"[81] and are essentially a modification of the Constitution itself. The U.S. Supreme Court can interpret the Constitution, which some may argue has the force of a constitutional amendment.

DYNAMIC TREATY INTERPRETATION

The Minute Process of the IBWC and the constitutional amendment procedure serve a similar purpose: to allow an authority to interpret the source document when

77 Ibid.
78 The White House, "The Constitution," accessed September 17, 2015, https://www.whitehouse.gov/1600/constitution.
79 Ibid.
80 Ibid.
81 Mumme interview, July 19, 2015.

normative disputes emerge and help prevent the obsolescence of the original law. However, the procedure of approval and overall force of these tools differ. Constitutional amendments are approved by the Senate and essentially become like the constitution's text in terms of authoritative mandate. Minutes are only approved by the Commissioners (provided their foreign ministries do not reject it within thirty days) and have a malleable nature. Minutes are like snapshots in time, reflecting the normative context of issues as they emerge. One may argue that the ease of applying new treaty interpretations is a great advantage for the IBWC; it allows the Commission to respond to disputes that frequently arise. Minutes are useful in situations where the 1944 Treaty is vague or silent. The Minutes Process provides the 1944 Treaty great adaptability and enables the Commission to "secure long-term compliance through short term-flexibility."[82]

The Minute's short-term flexibility makes it different from constitutional amendments, which have an enduring and permanent nature. As discussed, international agreements made in IBWC Minutes do not require the approval of the U.S. Senate. This fact differentiates Minutes from other international agreements in which the U.S. engages, which require scrutiny from the Senate Foreign Relations Committee and two-thirds approval of the Senate. It is interesting that the Minute Process essentially endows the IBWC with a legislative power similar to that of the U.S. Senate and a judicial power similar to that of the U.S. Supreme Court. These facts are of no small consequence and grant the IBWC great autonomy in its decision-making. Considering water supply affects the public health, livelihoods, and economies of both countries, the level of autonomous authority granted to the IBWC through the Minute Process is unusual.[83] In the case of Fort Quitman, the IBWC has referred to or invoked Minutes to justify the 50/50

82 Umhoff, "An Analysis of the 1944 U.S.-Mexico Water Treaty," 77.
83 For more details on the impact of the 1944 Treaty, see Rubinstein, "The Price Texas Pays for Mexico's Water Debt."

allocation between the two countries, despite the fact that there is not a single Minute that approves the procedure, and the verbatim language of the 1906 and 1944 Treaties allocates 100 percent of these flows to the United States.[84]

84 This view is also confirmed by Carlos Rubinstein in Ibid.

Chapter 5: Correspondence between USIBWC and the TCEQ

On June 30, 2008, Texas Commission on Environmental Quality (TCEQ)[85] Chairman Buddy Garcia (2007-2012) sent a letter to USIBWC Commissioner Carlos Marin questioning the 50/50 water allocation practice at Fort Quitman. Two months later, both Marin and his Mexican counterpart, Commissioner Arturo Herrera, died tragically in a plane crash in the Sierra Madre Mountains in Mexico.[86] Acting USIBWC Commissioner Alfredo Riera resumed Marin's place shortly thereafter, followed by Bill Ruth and Edward Drusina. Correspondence between the TCEQ and IBWC about the Fort Quitman water allocation question spanned five years. Finally in 2013, Drusina requested the TCEQ forward all further questions about the Fort Quitman allocation to the U.S. Department of State. This correspondence highlights the IBWC's stance on water allocation at Fort Quitman as well as the vast autonomy the agency enjoys in its decision-making. These ten letters are reviewed below in chronological order (see Appendix F).[87]

AUGUST 6, 2013: *TCEQ TO USIBWC*

TCEQ Commissioner Garcia first initiated contact with USIBWC Commissioner Marin in a short letter reviewing the Fort Quitman water mandate as stated in the Convention of 1906 and 1944 Treaty. He specifically quotes Mexico's waiver to all claims of water of the Rio Grande from the Mexican Canal to Fort Quitman, and the important 1944 Treaty text allocating waters "*between* Fort Quitman and the lowest major international storage dam." He stated his belief that all water reaching Fort Quitman therefore is allocated to the United States. He requested that "the water

85 The Texas Commission on Environmental Quality (TCEQ) is the environmental regulatory agency of Texas; for more information see http://www.tceq.state.tx.us/.
86 CBSNews, "Officials In Border Plane Crash Found Dead" (September 17, 2008), accessed March 10, 2016, http://www.cbsnews.com/news/officials-in-border-plane-crash-found-dead/.
87 The letters can also be accessed at http://www.tceq.state.tx.us/border/international-water.html.

accounting be changed from the historical practice [of dividing the Fort Quitman water 50/50] to ensure that the United States receives all the water entitled via the 1906 Convention."

NOVEMBER 5, 2008: *USIBWC TO TCEQ*

After Marin's tragic death, Principal Engineer Al Riera, signing the latter as Acting USIBWC Commission, responded to Commissioner Garcia and refuted his claims. He specifically stated:

> The [IBWC's] water accounting procedures, as developed in the 1950s, reflect the position that the 1944 Treaty requires a 50/50 division of Rio Grande Waters reaching the Fort Quitman gaging station...This interpretation has been jointly adopted and maintained by both Sections of the Commission for over five decades and is supported by numerous internal Commission memoranda and correspondence addressing procedural concerns and 1944 Treaty interpretation during the development of the Commission's accounting procedures. Our research found no evidence to support the assignment of 100% of the Rio Grande flows reaching the Fort Quitman gage to the United States….The Commission agreed to detailed procedures for Rio Grande Water accounting in 1958 that provided for...the equal division between the two countries of the flows at the Fort Quitman gaging station.

He then quoted testimony from the Senate Foreign Relations Committee hearing that deliberated the 1944 Treaty. He cited Commissioner of the Bureau of Reclamations Harry Bashmore's testimony before the Committee that the flows at Fort Quitman become "part of the amount which will be divided under [the 1944 Treaty]."

USIBWC stood by its interpretation of 50/50 allocation at Fort Quitman, citing treaty mandate, internal memoranda, and hearing testimony as justification for the practice. However, the two treaties can be interpreted in a contradictory manner and basing agency practice on secret internal memoranda is not dispositive. It remains unclear how hearing testimony can supersede the written text of a ratified treaty, or be used as

validation to a practice that contradicts treaty mandate. Riera's letter failed to convince the TCEQ that fifty percent of Fort Quitman flows belong to Mexico.

MAY 18, 2012: *TCEQ TO USIBWC*

Nearly six months later, Garcia was no longer a TCEQ Commissioner. Commissioner Carlos Rubinstein asked again about the Fort Quitman water allocation based on his former nine-year service as the Rio Grande Watermaster of the TCEQ. Rubinstein's letter to the new USIBWC Commissioner Edward Drusina responded to Riera's assertion of the 50/50 practice. Rubinstein named other affected parties who wished to side with claims for 100 percent U.S. allocation, such as the Lower Rio Grande Valley Water District Managers' Association, Rio Grande Regional Water Authority, Watermaster Advisory Committee, and the Rio Grande Regional Water Planning Group.

Rubinstein's letter reviewed the text of both relevant treaties, repeating the TCEQ's interpretation of a 100 percent allocation of flows to the U.S. at the Fort Quitman gaging station. He reinterpreted Bashore's testimony as applying to lower Rio Grande flows only. He further challenged the USIBWC's letter:

> Our research led us to several internal IBWC memoranda on this issue. These memoranda are dated May 27-28, September 21, 1953, August 4, 1955, and February 10, 1958. While IBWC uses these documents to support the division of the water at Fort Quitman 50/50, they are all apparently based on nothing more than the vague testimony of Commissioner Bashore...The decision to allocate the waters at Fort Quitman was done at the level of the Principal Engineers; *an official Minute was never drafted or approved reflecting the accounting practice. (emphasis added).*

Rubinstein ends the letter with a request for a "face-to-face" meeting with the USIBWC to resolve the issue. Rubinstein clearly was prepared to see this dispute through to resolution and intended to make clear Texas's claim to 100 percent of Fort Quitman's water.

MAY 14, 2013: *TCEQ TO USIBWC*

After a year passed with no response from the USIBWC, TCEQ Commissioner Rubinstein sent another letter to Drusina with the subject line: "Anniversary of Letter on Allocation of Water at Fort Quitman." Rubinstein reminded Drusina of his prolonged request for a face-to-face meeting, reiterated the evidence affirming a 100 percent U.S. allocation, and requested the U.S. be credited the erroneously allocated water. Rubinstein quoted Drusina previously referencing a 100 percent allocation to the U.S. at a Rio Grande Compact Commission meeting earlier that year. Rubinstein copied the letter to various stakeholders, including Roberta Jacobson, Assistant Secretary of the Bureau of Western Hemisphere Affairs, U.S. State Department; Todd Staples, Texas Commissioner of Agriculture; Wayne Halbert, President of the Lower Rio Grande Valley Water District Managers' Association; Joe Barrerra III, Executive Director of the Rio Grande Regional Water Authority; the Rio Grande Watermaster Advisory Committee; and Glenn Jarvis, Chairman of the Rio Grande Regional Water Planning Group.

MARCH 15, 2013: *USIBWC TO TCEQ*

The next day, Commissioner Drusina responded to all parties. He stated that he had instructed staff to research all of Rubinstein's evidence and that he still adhered to the 50/50 allocation at Fort Quitman. He stated that the "plain language" reading of the 1944 Treaty, Article 4 (regarding Rio Grande water allocation) justified this claim, although this report's plain language reading performed in Chapter 2 concludes the contrary. He also claimed that a 50/50 allocation was "established in 1955" even though his November 5, 2008, letter asserted it was established in 1958.[88] Drusina stated that the memoranda indicating a 50/50 binational allocation are not based on Bashore's

88 See Appendix E, November 5, 2008, letter: "The Commission agreed to detailed procedures for Rio Grande Water accounting in 1958 that provided for the ownership of river flows in each reach beginning with the equal division between the two countries of the flows at the Fort Quitman gaging station."

testimony, but on "the significant experience of the personnel of the [IBWC] and the Commission's technical advisors in performing studies, drafting treaty text, negotiating the treaty, and preparing supporting documentation and testimony for the treaty ratification." It remains unclear, however, how the opinions of experienced advisors could supersede a treaty text or have the authority of international law.

Drusina also claimed that four IBWC Minutes support the 50/50 practice; these Minutes are reviewed in Chapter 6. He argued that Joint Reports by IBWC engineers were endorsed by these Minutes. His letter stated that "to account for this water in a different manner would require the concurrence of the Mexican Section, something that seems entirely unlikely." If a Fort Quitman allocation of 100 percent would be accomplished through approval from Mexico (i.e., the Minute Process), what is the basis for Drusina's claim that Minutes, memoranda, and Joint Reports are dispositive proof for the current 50/50 practice?

JUNE 7, 2013: *TCEQ TO USIBWC*

TCEQ Commissioner Rubinstein responded to Drusina three months later with a short and direct letter. The letter discussed the legislative intent behind the 1944 Treaty, stating that the drafters "would have clearly enunciated [a 50/50 allocation at Fort Quitman] in the Treaty. They did not." He closed the letter by challenging Drusina's diplomacy with the Mexican Section: "most troubling is your reluctance to even broach with the Mexican Section of the IBWC the subject of reallocating the waters passing the Fort-Quitman gage—particularly at a time when Mexico is clearly violating the 1944 Water Treaty."[89] The Texas border region was experiencing a severe drought and

89 In reference to Mexico's water debt to the U.S. under the 1944 Treaty; for more details, see Rubinstein, "The Price Texas Pays for Mexico's Water Debt."

Mexico was behind on their Rio Grande water deliveries under the 1944 Treaty. Rubinstein copied the previous parties again.

JUNE 12, 2014: *USIBWC TO TCEQ*

Less than a week later, USIBWC Commissioner Drusina responded, copying Roberta Jacobson and Deputy Assistant Secretary Matthew Rooney of the U.S. State Department's Bureau of Western Hemisphere Affairs. He responded that the painstaking assignment of researching Rubinstein's claims had already been thoroughly completed. Drusina reiterated his "plain reading" of the 1944 Treaty supporting the 50/50 divide. He also responded to Rubinstein's comments on his diplomatic relation with the Mexican Section, asserting: "I do not forward to the Mexican Section domestic concerns, including opinions involving international boundary and water issues, that I do not support."

JUNE 17, 2014: *TCEQ TO USIBWC*

Five days passed, and the TCEQ replied with a one-page letter acknowledging a clear need for further discussion of the matter. Neither side was budging. Rubinstein reiterated the plea for a face-to-face meeting:

> In an effort to reduce travel costs for entities already suffering from depressed water supplies due to Mexico's continued refusal to make timely water deliveries to the United States, I request that we have this meeting in the Lower Rio Grande Valley of Texas in early to mid-August. It would be helpful to all if you could provide and discuss copies of the documents upon which you relied; specifically, any documents found during your research within the last year.

Rubinstein copied all parties who had been copied in the May 14th letter.

JUNE 20, 2013: *USIBWC TO TCEQ*

Drusina responded to Rubinstein with a two-sentence letter acknowledging receipt of the June 17th letter, and stated "with regard to your proposal for a meeting in

August in the Lower Rio Grande Valley, I will provide a specific response in the near future."

AUGUST 6, 2013: *USIBWC TO TCEQ*

Drusina followed-up his brief June 20th letter expressing his opinion that the matter of a 50/50 water allocation at Fort Quitman had been discussed sufficiently. He asked Rubinstein to address any further questions to the Office of the Legal Advisor of the U.S. State Department. Rubinstein never responded.

SUMMARY

As outlined above, the USIBWC is aware that the State of Texas believes the water at Fort Quitman is being erroneously allocated 50/50 to each country and should be allocated 100 percent to the United States, which means to Texas water rights holders. The USIBWC used the following arguments for justification of their practice:

- A plain language reading of the Convention of 1906 and 1944 Treaty
- A historical practice dating back to 1955
- A historical practice dating back to 1958
- The testimony of Bureau of Reclamation Commissioner Bashore
- The expertise of IBWC technical advisors
- Minutes 182, 187, 207, and 210
- Joint Engineering Reports endorsed by said Minutes
- Internal memoranda
- A wish to not broach the subject with the Mexican Section.

The TCEQ used the following argument to justify a 100 percent allocation to the US:

- A plain language reading of the Convention of 1906 and 1944 Treaty
- Minutes 182, 187, 207, 210, and their associated joint reports do not contain a justification or mentioning of Fort Quitman at all
- The internal memoranda relied upon by the IBWC is not a sufficient mandate for water accounting practices.

Chapter 6: USIBWC Minutes 182, 187, 207, 210 and Associated Engineering Reports

USIBWC Commissioner Drusina cited four Minutes and their associated engineering reports[90] as justification for a 50/50 allocation at Fort Quitman in his correspondence to the TCEQ dated May 15, 2013. This section will summarize these materials in their chronological order, and discuss their implications on Fort Quitman allocation. The section will ask whether USIBWC Commissioner Drusina's argument for a 50/50 allocation is justified.

MINUTE NO. 182 (SEPTEMBER 23, 1946): *APPROVAL OF "JOINT REPORT ON ENGINEERING CONFERENCE ON STUDIES, INVESTIGATIONS AND PROCEDURES FOR THE PLANNING OF WORKS TO BE BUILT IN ACCORDANCE WITH THE TREATY OF 1944"*

Minute No. 182 (see Appendix G) adopts its attached joint engineering report and instructs the IBWC engineers to continue their "studies and investigations...in order that final plans for the works undertaken on (the Rio Grande, the Colorado River, and Tijuana River) in accordance with the (1944 Treaty)." Article 5 of the 1944 Treaty instructs the IBWC to build international dams and reservoirs. This Minute was signed after engineers investigated potential locations for these projects in each basin. The report contains recommendations for what is now Falcon Reservoir. It suggests that another international dam be built upstream "to obtain maximum benefit from the waters allotted by the Treaty," to be called the Agua Verde Dam.

The report's hydrographic investigation is based the Rio Grande water supply in the 1944 Treaty. The report does not mention Fort Quitman flows explicitly. However,

90 IBWC Minutes are accessible on the USIBWC website, but the engineering reports reviewed in this report were retrieved in person from the National Archives at Fort Worth (held in Records Group 76). The IBWC does not upload Minute attachments for this time period on their website, but Appendix P of this report contains true and correct copies of all.

Fort Quitman is discussed in the "General" section of the report, excerpted below (*emphasis added*):

> The Rio Grande drainage area is divided into two basins: the Upper, extending from the headwaters ***to*** **Fort Quitman**, Texas; and the Lower, extending **from the latter point** to the mouth of the river in the Gulf of Mexico, a distance of about 1160 miles (1870 kilometers). In so far as concerns of the Rio Grande and the Treaty of 1944 relates to the equitable distribution between the two countries only of the waters of the Lower Rio Grande (***below*** **Fort Quitman**)...Of the 568,000 (230,000 hectares) acres now irrigated in the Lower Rio Grande Basin in Mexico…15,000 acres (6,100 hectares) ***between*** **Fort Quitman** and the mouth of the Conchos River….
>
> ….Operation studies indicate that under ultimate conditions of development above the proposed Falcon reservoir, i.e. when each country is making the fullest practicable use of the waters of its tributaries and when the fullest practicable use is made of the waters of the main stream ***between*** **Fort Quitman and the Falcon reservoir**….
>
> ...The studies referred to above contemplate an increase, under ultimate conditions of development, of the area irrigated from the main stream ***between*** **Fort Quitman and the proposed Falcon reservoir**….

A plain-language reading of the engineering report reveals a water accounting of flows *between* Fort Quitman and the proposed Falcon reservoir, which has the effect of excluding water reaching the Fort Quitman gage. It is unclear why Commissioner Drusina would cite this document to justify a 50/50 allocation of Fort Quitman flows, if the Minute and report reference a completely different subject.

MINUTE NO. 187 (DECEMBER 20, 1947): DETERMINATIONS AS TO SITE AND REQUIRED CAPACITIES OF THE LOWEST MAJOR INTERNATIONAL STORAGE DAM TO BE BUILT ON THE RIO GRANDE, IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE V OF THE TREATY.

Minute No. 187 (see Appendix H) was signed over a year later. It approved the commencement of the Falcon reservoir construction. The associated engineering report, *Joint Report on the Capacities for the Lowest Major International Reservoir on the Rio Grande*, outlines the functions, capacities, and construction recommendations for the

reservoir. It states "...these studies included the consideration of upper reservoirs and their capacities..." The report refers generally to upstream flows, but does not specifically mention Fort Quitman or contain any indication that a 50/50 allocation at Fort Quitman was used in its analysis. It is unclear why Commissioner Drusina cites this specific Minute to justify the IBWC 50/50 allocation practice at Fort Quitman.

MINUTE NO. 207 (JUNE 19, 1958): CONSIDERATION OF JOINT REPORT OF THE PRINCIPAL ENGINEERS ON SITE, CAPACITIES AND TYPE OF DAM FOR THE SECOND MAJOR INTERNATIONAL STORAGE DAM ON THE RIO GRANDE

Minute No. 207 (see Appendix I) was passed nearly six months later; it approved a joint engineering report that investigated a location for the second major international storage dam on the Rio Grande, the present-day Amistad Reservoir. The report evaluates many potential locations for the dam and recommends a site called Diablo Axis No. 1, located 12 miles upstream from Del Rio/Ciudad Acuña. The report contains design recommendations for the proposed dam, including capacity analysis, and the division of cost for both countries. The analysis reviewed upstream flows:

> These studies, jointly accomplished by the two Sections, included analyses of the historic water supply for the period 1900-1942 and development of estimates as to consumptive use of existing and probably future irrigation development along the Rio Grande and tributaries ***below*** **Fort Quitman** and formed the basis of the estimates contained in Minute No. 182, dated September 23, 1946.

The upstream flows considered by the engineers only refer to water *below* Fort Quitman, and the report does not mention Fort Quitman again. Minute No. 207 and the associated engineering report do not discuss Fort Quitman flows. The Minute does not establish a 50/50 allocation practice at Fort Quitman. Commissioner Drusina cited Minute No. 207 as evidence for a 50/50 mandate, although the Minute does not do so.

MINUTE NO. 210 (JANUARY 12, 1961): RECOMMENDATIONS REGARDING CONSTRUCTION OF AMISTAD DAM

Six months later, the IBWC signed Minute No. 210 (see Appendix J) approving the construction of Amistad Dam proposed in Minute No. 207 at the Diablo site. The attached engineering report outlines the proposed dam's design and recommended construction begin "at the earliest practicable date." Neither the Minute nor the report mentions Fort Quitman allocation. Minute No. 210 does not establish a water allocation practice of 50/50 at the Fort Quitman gage. It is unclear how Minute No. 210 could be used by Commissioner Drusina to justify the current Fort Quitman allocation, as it does not do so.

DISCUSSION

USIBWC Commissioner Drusina specifically cited the four Minutes and engineering reports reviewed above as justification for a 50/50 allocation at Fort Quitman in his correspondence to the TCEQ dated May 15, 2013. These materials refer to the construction of the Falcon and Amistad dams, not water allocation practices at Fort Quitman. Several Minutes do allude to water flows at Fort Quitman, but the engineering reports explicitly refer to flows *below* Fort Quitman.

The Minutes regarding construction of dams in the lower Rio Grande do not mandate or discuss a 50/50 allocation at Fort Quitman. Why would Commissioner Drusina cite these four Minutes as justification for allocation at Fort Quitman, when they address separate topics and only refer to flows *below* Fort Quitman? No IBWC Minute in the record represents a formal agreement between the two Sections to establish a 50/50 allocation. If the Minute Process is IBWC's tool to interpret the 1944 Treaty and establish agreements between the two Sections, why is there no Minute representing a binational agreement on Fort Quitman allocation? If there were, there would at least be

evidence that the U.S. State Department may have approved such a practice, considering the agency has 30 days to reject IBWC Minutes. Surely a matter as significant as establishing international water allocation, affecting the livelihoods of innumerable individuals, ought to warrant a Minute from the IBWC, especially when the Treaties indicate a contrary practice. Even more confounding is whether the IBWC Minute Process could apply to flows at Fort Quitman at all. As the Minute Process is established by the 1944 Treaty, which governs the lower segment (between Fort Quitman and the Gulf of Mexico) of the Rio Grande, there is no treaty basis for it to be applicable to decision-making about Fort Quitman.

Chapter 7: Internal IBWC Memoranda Regarding Water Allocation

Commissioner Drusina's correspondence to the TCEQ cited four internal memoranda ["memo(s)"] in his argument for a 50/50 allocation practice at Fort Quitman. This section will review each memo chronologically and discuss the implications they have on Drusina's argument. Note that an internal memorandum is not a decision-making mechanism granted in any treaty regarding functions of the IBWC. A memo is not a Minute, nor does it have any meaning or official designation under the 1906 or 1944 Treaties.

JUNE 16, 1953: MEMO OF ENGINEERING CONFERENCE ON WATER ACCOUNTING, MAY 27 & 28, 1953

This memo provides an overview of a technical conference held on May, 1953, the purpose of which was to secure Technical Advisor Robert L. Lowry's views "on the alternative plans for procedures... for accounting of national ownership of the Rio Grande waters..." (Appendix K). Lowry, a hydrologist involved in the drafting and negotiating of the 1944 Treaty, served as a technical advisor at the USIBWC afterward. The conference included six participants: Lowry, Principal Engineers J.F. Friedkin (who later served as USIBWC Commissioner for twenty-five years) and L.H. Henderson, and engineers Victor Von Schoeler, L.R. Flook, and Ted E. Henderson. During the conference, Friedkin stated that water accounting should focus on the waters "*below* Fort Quitman, between each country in accordance with [the 1944 Treaty]." However, below the waters *at* Fort Quitman was also discussed (*emphasis added*):

> Engineer Friedkin then brought up the question, which he said had been partly answered by Secretary Winters,[91] whether the United States has already accepted an **equal division of water at Fort Quitman**. Mr. Lowry said this interpretation

91 George W. Winters served as the USIBWC Secretary at this time.

> of Article 4A(d) and B(d) of the [1944 Treaty] **has been accepted by the United States Section** [of the IBWC].

Friedkin questioned how flows at Fort Quitman should be allocated at the conference, and technical advisor Lowry's response indicates that the matter was already decided by the USIBWC. Therefore, the decision to equally allocate the waters at Fort Quitman must have predated the conference, and was not expressly mandated by the 1944 Treaty. Where is the record of this 50/50 interpretation and how was the agreement made? Evidently Friedkin saw a need for more clarity on this topic at the conference:

> Engineer Friedkin cited the need of agreements with the Mexican Section of the Commission on the following subjects:
>
> 1. Interpretation of certain provisions of the Water Treaty of 1944, particularly Articles 4A(d), 4B(d), and 9(c).[92]
> 2. Current accounting for operational purposes.
> 3. Final accounting of national ownership.
>
> It was the view of those participating in the conference that we should discuss the details of these items with the Mexican Section, making clear that the first memorandum developed would be for the national ownership accounting only and that an operation memorandum will be made up later. It was suggested that we should discuss our plan with the United States Water Master in the Lower Rio Grande Valley before presenting it to the Mexican Section. After an agreement is reached on a method to be used in national ownership determination we would be in a position to go to work on a plan of current accounting for operation purposes.

It is evident that the subject of water allocation below Fort Quitman was not yet formally decided upon. The Engineer and future Commissioner Friedkin acknowledged that no official treaty mandate exists for these issues. Friedkin expressed a need for an agreement with the Mexican Section, which does not yet exist. In other words, no Minute had been ratified on the subject. Lowry stated, matter-of-factly, that the USIBWC Secretary already decided upon this issue. However, IBWC Secretaries are not

92 Articles 4A(d) and 4B(d) both pertain to the allocation of flows between Fort Quitman and Falcon reservoir, and 9(c) pertains to the consumptive use of flows below Fort Quitman. See Appendix B.

empowered with decision-making authority. There is no record of such decision by anyone on the U.S. or Mexican side as required.

SEPTEMBER 21, 1953: MEMO TO THE COMMISSIONER THROUGH PRINCIPAL ENGINEER (SUPERVISING) LYMAN R. FLOOK, JR. REGARDING WATER ACCOUNTING.

This memo was solicited by the USIBWC Commissioner Lawson (an original drafter of the 1944 Treaty) for a "tentative method of determining the national ownership of Rio Grande waters between Fort Quitman and the Gulf of Mexico" (see Appendix L). The memo analyzed the water allocation set forth in the 1944 Treaty, and opines the following (*emphasis added*):

> All remaining accretions to the flow of the main channel below Fort Quitman not otherwise allotted to either country, ***including flow of the river at Fort Quitman***, and the contributions to the river flow from all unmeasured tributaries, which are not named in Article 4, ***are allotted one-half to Mexico and one-half to United States***….
>
> The water accounting above Falcon Reservoir will begin with ***an equal division of the flow passing Fort Quitman gaging station***.

Flook's recommendation of a 50/50 water division at Fort Quitman appears to be an *ad-hoc* attempt to "fill in the blanks" where the 1944 Treaty is silent. As thoroughly detailed in this report, the 1944 Treaty articulates nothing about the flows at Fort Quitman, so this 50/50 division is merely a "tentative method" proposed by the Hydraulic Engineer Flook. Flook, like any engineer at the USIBWC, does not have authority to create new interpretations of the 1944 Treaty; his memo provides advice to the Commissioner.

Flook's suggestion does not represent an agreement between the two Sections or have the force of an international treaty. In fact, the nature of his suggestion being a "tentative method" proves the 50/50 allocation practice was **not** an agreed upon method or one backed by the treaties or Minute Process. The 1944 Treaty does not provide for internal engineering memos to the Commissioner to have the effect of establishing

mandate. For Lawson to apply this memo's suggestion lawfully, he would be required to make a formal agreement with the Mexican Section in the form of a Minute, which did not occur. As Lawson was one of the original drafters of the 1944 Treaty, his request for a technical recommendation after the Treaty ratification indicates that the question of the allocation percent at Fort Quitman had not been determined by the 1944 Treaty. This report asserts that flows at Fort Quitman are already accounted for under the 1906 Convention, and Mexico's waiver of rights renders Fort Quitman flows 100 percent allocated to the U.S. According to Commission Drusina's letters, the 1944 Treaty's intent was to allocate these waters 50/50. If that is true, why did one of the primary drafters request suggestions about Fort Quitman allocation after the treaty was ratified?

AUGUST 4, 1955: MEMO TO THE PRINCIPAL ENGINEERS OF THE U.S. AND MEXICAN SECTION FROM HYDRAULIC ENGINEER LYMAN R. FLOOK, JR., OF THE U.S. SECTION AND ENGINEER JENARO PAZ REYES OF THE MEXICAN SECTION, REGARDING PROPOSED PROCEDURES FOR RIO GRANDE WATER ACCOUNTING

This memo concerned the ownership of waters in storage at Falcon Reservoir between the two countries (see Appendix M). It specifically states that the procedures recommended herein be "considered as preliminary and subject to later refinement." The only material relevant to this report is the engineer's claim that "[a]ccounting would begin with the uppermost reach, the Fort Quitman Upper Presidio reach, and would be carried progressively downstream…" The memo does not provide clear interpretation regarding water allocation at Fort Quitman.

FEBRUARY 10, 1958: PROCEDURES FOR RIO GRANDE WATER ACCOUNTING

This document represents a memorandum of understanding (MOU) in regards to the procedures adopted by the two Commissioners in a meeting on January 13, 1958 (see Appendix N). The Commissioners met "in a meeting in the Juárez office of the Mexican Section on January 13, 1958 (and) agreed upon the modifications that should be

made…the procedures to be followed in the future accounting beginning January 1, 1958 based on the original procedures adopted by the Commission and modified by the Commissioners in their meeting on January 13, 1958 are set forth as follows…" It is unclear why the Commissioners would use an MOU to memorialize their meeting on water allocations when the Minute Process is the only legal means for agreeing upon treaty interpretations.[93] It provides the following (*emphasis added*):

> 1. Inflows
>
> a) River Flows at gaging station, head of each reach (measured)
> Beginning with **equal division between the two countries of the flows at Ft. Quitman gaging station**, the ownership of flows at the head of the next downstream reach will be determined from the results of the accounting in each reach.

This accounting procedure allocates the Rio Graned water flow 50/50 at the Fort Quitman gaging station. However, as stated, the 1944 Treaty does not include MOUs as method of establishing *ad hoc* agreements between the two sections.

DISCUSSION

What force does an MOU have when the 1944 Treaty specifically provides for a different method of binational decision-making? This is a question only the U.S. Department of State can answer. This report found no explanation as to how an MOU can replace the Minute Process. Returning to TCEQ Commissioner Rubinstein's May 18, 2012, correspondence, "the decision to allocate the waters at Fort Quitman was done at the level of the Principal Engineers; an official Minute was never drafted or approved reflecting the accounting practice." This report concurs with Rubinstein's finding and agrees that the evidence relied upon by the IBWC to justify the 50/50 allocation is non-dispositive.

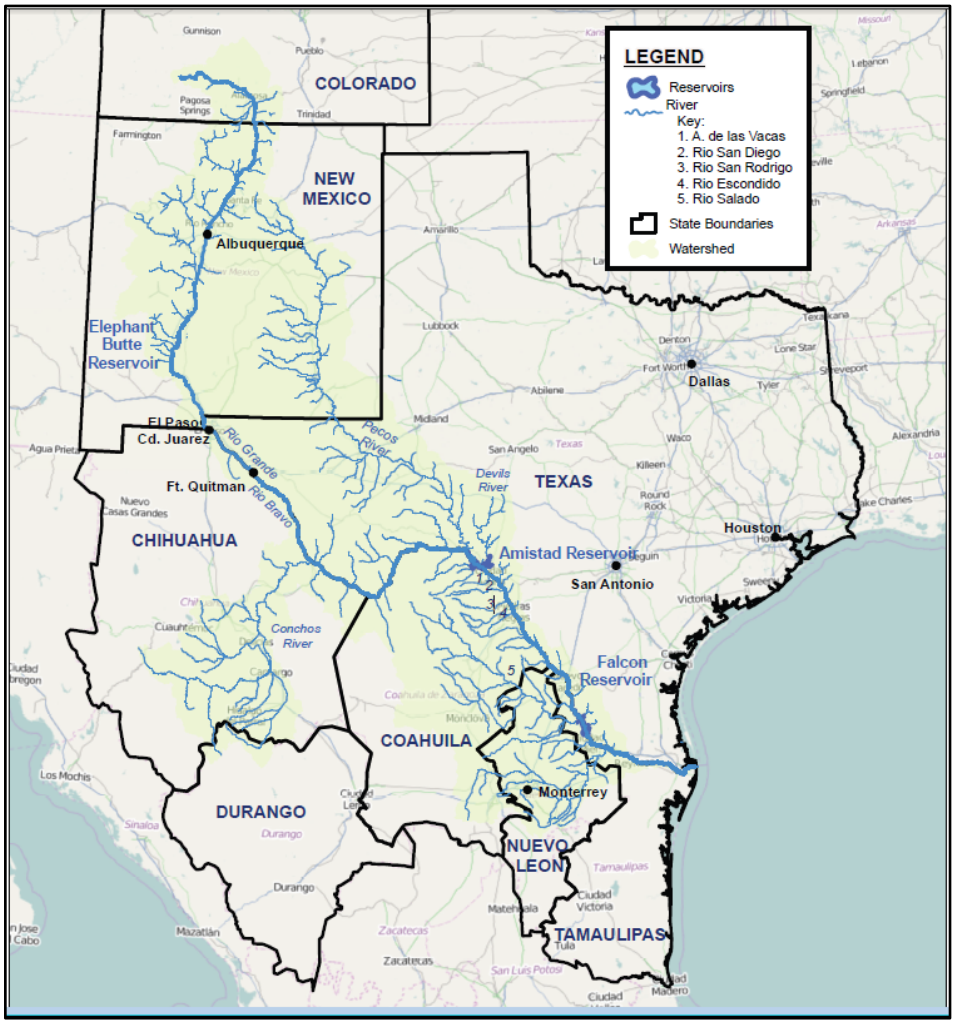
93 1944 Treaty, Article 25: "Decisions of the Commission shall be recorded in the form of Minutes…"

Chapter 8: The Bigger Picture

The Rio Grande basin recently suffered a drought that, some argue, was worse than the drought-of-record in the 1950s.[94] The Rio Grande's transnational stretch dividing Texas and Mexico poses a dynamic diplomacy challenge, as both sides of the border have large-scale agricultural and municipal needs for water. Adhering to binational agreements on flow allocation is essential to the health of diplomatic relations and stable economic growth. The river section from El Paso/Juarez to Fort Quitman, termed the "upper segment," is allocated pursuant to the 1906 Convention. Mexico receives an annual 60,000 acre-feet and the remaining flows belong to Texas. The "lower segment" as discussed in this report is allocated under the 1944 Treaty, and encompasses flows between Fort Quitman and the Gulf of Mexico, including tributaries. Figure 8.1 depicts both segments and the Rio Grande tributaries governed by both treaties.

94 National Public Radio, "Everything You Need to Know About the Texas Drought," accessed January 10, 2016, https://stateimpact.npr.org/texas/tag/drought/·

Figure 8.1: The Rio Grande Basin



Source: Carlos Rubinstein, "The Price Texas Pays for Mexico's Water Debt," *Texas Water Journal* 6, no. 1 (2015): 1-10.

The upper segment is the most arid portion of Texas. Its economy focuses mostly on ranching and agriculture, with El Paso as its commercial and industrial center. Between the Amistad Dam and Middle Rio Grande reach, the ranching activity in Del Rio and irrigated farming in Eagle Pass and Laredo spans over 200,000 acres. There is

also increasing commercial development and manufacturing with the growing *maquiladora* program (Mexicans working within manufacturing operations).[95]

Between Falcon Dam and the Lower Rio Grande Valley of Texas (LRGV), the climate becomes semi-tropical. There are copious irrigation, tourism, commercial, and industrial operations. There are over 800,000 acres of irrigated farmland and dryland farming in the LRGV, which produces a "great portion of agricultural products produced in Texas."[96] The area produces vegetables, cotton, grain, sugar, cattle, and citrus. It is also highly urbanized, with over 1.2 million people. The McAllen-Edinburg-Mission MSA in Hidalgo County was the fastest growing market in Texas in 1994, followed by Laredo.[97]

In 2013, Texas politicians began publicly admonishing Mexico and urging the U.S. government to apply pressure on its neighbor to deliver Rio Grande flows per the 1944 Treaty mandate. Former Texas Governor Rick Perry indicated his view that the U.S. State Department did not do enough to ensure Mexico's treaty compliance. An editorial by TCEQ Commissioner Rubinstein and Texas Agriculture Commissioner Todd Staples stated, "[The] IBWC and the State Department have achieved nothing. Their efforts seem to be limited to a shrug of the shoulders and claims that 'there's nothing we can do.'"[98] Both sides of the border experienced arid conditions in 2013. The U.S. continued setting aside Mexico's allocation before determining American amounts. In exchange for Rio Grande flows from Mexico, U.S. released 1.5 million acre-feet from the

95 Glenn Jarvis, "The Rio Grande From Ft. Quitman to the Gulf: Water Rights and Needs in the Lower Rio Grande" (Presented at Laws of the Rio Grande del Norte: An Interstate Seminar, Albuquerque, New Mexico, April 1991).
96 Ibid.
97 Ibid.
98 Priscila Mosqueda, "On the Border, a Struggle over Water," The Texas Observer (June 10, 2013), accessed March 11, 2016, http://www.texasobserver.org/on-the-border-a-struggle-over-water/.

Colorado River and another 60,000 from Elephant Butte in New Mexico to Juarez Valley.

The International Boundary and Water Commission is charged with enforcing these binational water agreements. One Mexican and one American Commissioner represent their country's respective interests and must jointly agree on treaty interpretations. The 1944 Treaty allocated to the IBWC the sovereignty to settle any dispute that may arise from interpreting the Minute Process. Provided their respective governments do not disagree within thirty days, the Minute has the force of law

The Minute Process allows the IBWC to adapt as normative gaps emerge between the treaty text and reality. Although the 1944 Treaty garners substantial criticism from stakeholders, experts say "the treaty is here to stay."[99] These criticisms include the IBWC's inability to enforce Mexico's water commitment to the United States. While there has been drought in the Río Conchos (a main Rio Grande tributary in Mexico), often Mexico has used water internally from the Río Conchos basin instead of delivering the 350,000 acre-feet annually to the United States as mandated by the treaty.[100] This has ignited controversy among Texas water users and caused a flurry of debate among scholars and stakeholders about the IBWC's treaty enforcement. Financial impacts on Texas water rights holders have affected agricultural, municipal, and industrial users. These economic losses represent damages that Texas stakeholders have incurred as a direct result of water shortages in the Rio Grande. In 2001, the economic impact from water shortage in the Rio Grande due to Mexico's failure to make deliveries under the 1944 Treaty was at least $400 million per year.[101]

---

99 Mumme, "Revising the 1944 Water Treaty," 651.
100 Texas Natural Resource Conservation Commission, "State of the Rio Grande and the Environment of the Border Region: Strategic Plan, Fiscal Years 2003-2007, Vol. 3" (Austin, Tex., June 2002), 33.
101 Ibid.

IBWC water bulletins show that the average annual amount of Fort Quitman flows being given to Mexico in error is approximately 36,218 acre-feet. Spot-market water refers to water being sold on the market when users require one-time purchases. Spot-market water (also called wet water) is currently sold at about $100-150 per acre-foot.[102] On that basis, the erroneous allocation of Fort Quitman water has cost the State of Texas $210-$315 million since 1958, or $3.6-5.4 million per year. Water users can also purchase perpetual water (also called paper water), which is sold for about $2,500-$2,800/acre-feet.[103] In terms of lost water rights due to Fort Quitman misallocation, damages to Texas could be as much as $5.88 billion.

Agricultural Use

Because of the border region's dry climate, irrigation enahnces crop production and about half of crop acreage utilizes irrigated waters. The Lower Rio Grande Valley ("LRGV"), which includes Cameron, Hidalgo, Starr and Willacy counties, has experienced irrigation water shortages since the mid-1990s beginning in 1992 when Mexico did not meet the 350,000 acre-feet annual commitment from the Rio Grande. Row crops are crops that can be grown on either irrigated or dryland, while specialty crops must be irrigated. A 2013 study done by Texas A&M Agrilife Extension showed that without irrigation, farmers produce dryland yields causing a reduction in farm-gate loss of $31.2 million per year from 2008-2012 (Table 8.1).[104] Farm-gate refers to revenue from the price of the product sold by the farm. LRGV farmers tend not to grow specialty crops (like citrus, vegetables, and sugarcane) because of water shortage and the

102 These prices were provided by Carlos Rubinstein on March 9, 2016, who has extensive experience in water contracting.
103 Ibid.
104 Luis A. Ribera and Dean McCorkle, "Economic Impact Estimate of Irrigation Water Shortages on the Lower Rio Grande Valley Agriculture" (Texas A&M Agrilife Extension, 2013), Accessed January 15, 2016, http://www.tceq.state.tx.us/assets/public/border/economic-impact-LRGV.pdf.

opportunity cost for converting crops from specialty to strictly row is valued at $23.4 million loss per year from 2008-2013 (see Table 8.2).[105] The farmers' losses reflect the uncertainty of Mexico's deliveries.

This means that LRGV's farm-gate losses amount to $54.6 million annually due to irrigation shortages from the lower segment of Rio Grande/Río Grande basin. However, the broader economic impact on the agricultural sector is an estimated $229.24 million in revenue loss associated with irrigation shortages. This loss includes employment impacts (full and part-time jobs), value added (net business income and employee compensation), and economic output (gross business activity).

105 Ibid.

Table 8.1: Row Crop Losses Due to Lack of Irrigation Water in the LRGV

	Yield	Yield Loss	Acreage	2013 Price	Total Farm Gate
	5-year average				
Cotton					
Irrigated	1,1017 (lbs)	-488 (lbs)	32,273	$0.80/lb	$13,554,709
Dryland	528 (lbs)		76,572		
Corn					
Irrigated	99 (bu)	-22 (bu)	31,317	$6.61/bu	$4,533,345
Dryland	77 (bu)		8,034		
Sorghum					
Irrigated	77 (bu)	-29 (bu)	80,267	$6.00/bu	$14,134,952
Dryland	48 (bu)		282,450		
Total Row Crop Loss					**$31,223,006**

Source: Luis A. Ribera and Dean McCorkle, "Economic Impact Estimate of Irrigation Water Shortages on the Lower Rio Grande Valley Agriculture" (Texas A&M Agrilife Extension, 2013), Accessed January 15, 2016, http://www.tceq.state.tx.us/assets/public/border/economic-impact-LRGV.pdf.

Table 8.2: Value of Production of Vegetables and Sugarcane Acreage Turned into Row Crop Production

	Crop Mix	Acreage Mix	Yield Dryland	Price	Value
	5-year average				
Cotton	21%	14,879	528	$0.80	$6,284,925
Corn	8%	5,379	77	$6.61	$2,737,867
Sorghum	71%	49,857	48	$6.00	$14,358,794
Total Gross Revenue					**$23,381,586**

Source: Luis A. Ribera and Dean McCorkle, "Economic Impact Estimate of Irrigation Water Shortages on the Lower Rio Grande Valley Agriculture" (Texas A&M Agrilife Extension, 2013), Accessed January 15, 2016, http://www.tceq.state.tx.us/assets/public/border/economic-impact-LRGV.pdf.

Municipal Use

Water shortages also affected Valley cities, which rely heavily on a large amount of irrigation "push water" to move their water through the canals. Without this water for irrigation use, municipalities cannot recover water deliveries. "Push water" is the term given to the water used for the transportation of municipal water during coordinated deliveries with agricultural users by irrigation districts. In March 2013, irrigation districts began notifying irrigators that they would be curtailed within sixty days, and cities began scrambling to buy push water to ensure their taps stayed on. For example, Rio Hondo, Raymondville, and San Benito looked for contracts to buy new sources of municipal water. Rio Hondo Mayor Alonzo Garza said that paying for push water could even bankrupt his town with a population of only 2,443 people. San Benito considered drilling wells at their water treatment plan, but was not able to pay the hundreds of thousands of dollars for the project.[106]

According to the National Weather Service, the following cities, utilities and users were affected by the curtailment of push water in the canals in March 2013:[107]

1. Cameron County Irrigation District No. 2 (San Benito) which services the cities of Benito, Rio Hondo, and Arroyo City. None of these users have secured a secondary source of water;
2. Hidalgo and Cameron Counties Irrigation District No. 9 (Mercedes) serves the cities of Weslaco, Mercedes, North Alamo, Edcouch, Elsa, and La Villa. Only North Alamo has a secondary source of water (Donna Irrigation District);
3. Delta Lake services Raymondville, Lyford and North Alamo;
4. Hidalgo Irrigation District No. 16 servicing La Joya Water Supply and the City of La Joya. No secondary source of water;
5. Hidalgo County Irrigation District No. 3 servicing the City of McAllen. United Irrigation District and Hidalgo County Irrigation District No. 2 serves as a secondary source for McAllen;

106 Priscila Mosqueda, "On the Border, a Struggle over Water," The Texas Observer (June 10, 2013), accessed March 11, 2016, http://www.texasobserver.org/on-the-border-a-struggle-over-water/.
107 National Weather Service, Southern Region Headquarters, "March 2013 Drought Update" (March 2013), Accessed March 15, 2016, http://www.srh.noaa.gov/images/bro/news/2013/pdf/marchdroughtupdate.pdf.

6. Valley Acres Irrigation District serves the Rio Grande Valley Sugar Growers Association with raw water to run the sugar mill operations, with no secondary source.
7. La Feria Irrigation District services the City of La Feria and the City of Santa Rosa with no secondary water source; and
8. Valley Municipal Utility District services the Rancho Viejo community, and may have a secondary source of water from Olmito Water Supply Corporation or Southmost Water Supply Corporation.

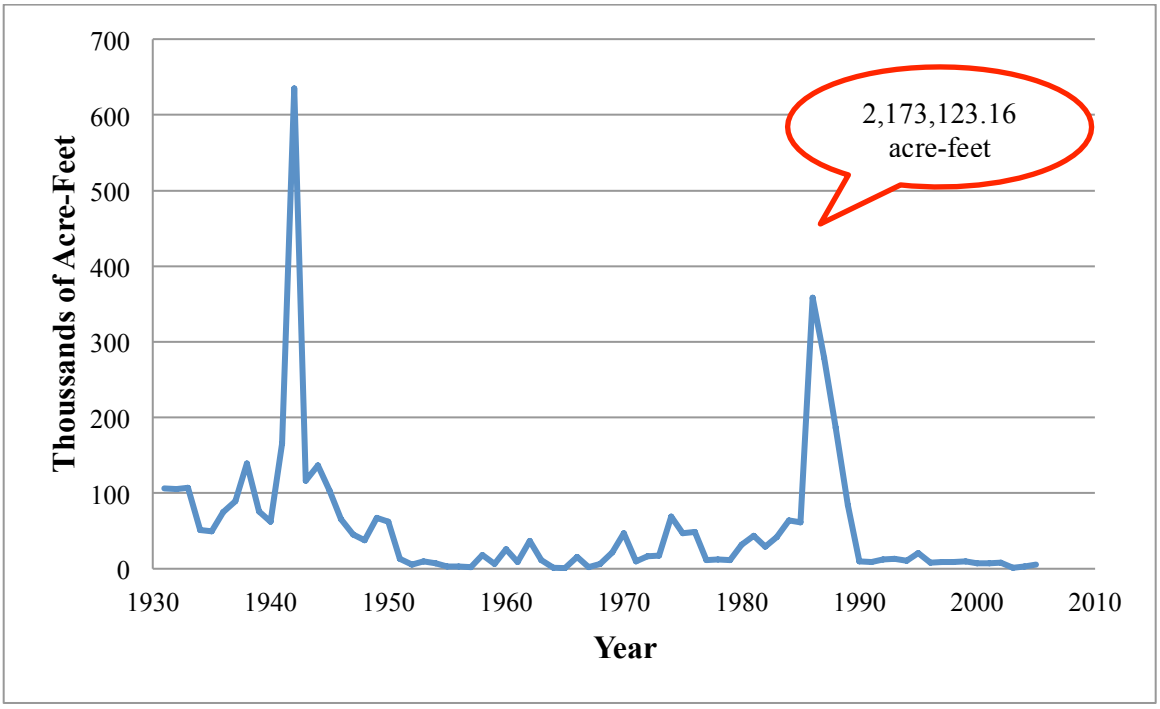
Municipal users in the lower segment cannot be curtailed due to shortages, per the TCEQ regulations of the Rio Grande.[108] In order to have efficiencies in the water delivery system, local irrigation districts transport water to cities through coordinated deliveries with agricultural users in the region. However, when agricultural water rights were curtailed in 2013, irrigation districts stopped pumping water from Rio Grande for agricultural use.[109] There was therefore not enough "push water" for municipal users like Rio Hondo to get their water delivered, and the irrigation district told the city it could not efficiently deliver its water. Located in Cameron County, the small city of Rio Hondo with an annual budget of approximately $1.1 million was forced to purchase additional push water at a municipal water rate. The city spent $30,000 for the transportation of their water supply—water that would not be used for consumption. The area ultimately received rainfall after the purchase and the additional supply was not needed, but "the fear was big."[110] If the drought had continued, it is hard to imagine how small towns such as Rio Hondo, could afford $30,000 per month for push water. With such a limited annual budget, such an expense would be devastating to the local economy.

108 TCEQ, "Rio Grande Watermaster Program," accessed March 16, 2016, https://www.tceq.texas.gov/permitting/water_rights/wmaster/rgwr/riogrande.html.
109 Representative Eddie Lucio III, interview by author, March 15, 2016.
110 Ibid.

FLOWS AT FORT QUITMAN

The treaties governing the transboundary stretch of the Rio Grande are ambiguous on the allocation of flows at Fort Quitman. The Fort Quitman gage represents a terminus point, as it divides the upper and lower segments pursuant to the 1906 Convention and 1944 Treaty. Under the Convention of 1906, Mexico "waives any and all claims to the water of the Rio Grande for any purpose whatever between the (El Paso) and Fort Quitman, Texas…" In other words, Mexico agreed to waive any rights to the upper segment flows except for an annual 60,000 acre-feet for agricultural use.

Figure 8.2: Mexico's 50% Allocation at Fort Quitman, 1958-2016



Source: 1958-2006 International Boundary and Water Commission Water Bulletins. 2007-2016 are averages. See Appendix C for data.

Hydrologically, flows reaching Fort Quitman have already been allocated under the Convention of 1906. Similarly, the 1944 Treaty allocates the Rio Grande flows "*between* Fort Quitman and the lowest major international storage dam." Because the 1944 Treaty does not mention the allocation of flows at Fort Quitman, one can

reasonably infer that the treaty drafters must have considered these flows already accounted for in the Convention of 1906. Therefore, Mexico's waiver in the Convention of 1906 (after the 60,000 acre-feet for agricultural use)[111] must apply towards the Fort Quitman flows, as the TCEQ asserted in its correspondence. However, the IBWC has been dividing the flows reaching this gage 50/50 between the two countries since at least 1958.[112] The total flow erroneously allocated to Mexico at Fort Quitman is an estimated 2,173,123 acre-feet (see Figure 8.2).[113] When the last five-year cycle ended in October 24, 2015, water users on the border still expecting Mexico to resolve its water debt of over 263,250 acre-feet.[114] The calculations show that Texas water users have been precluded from approximately 2.1 million acre-feet from Fort Quitman since 1958. In other words, Texas water rights holders in the border region have suffered losses of approximately 2.4 million acre feet since 1958 until Mexico repaid its debt in February 2016.[115] Figure 8.2 shows the yearly allocation from 1958 to 2006 from Fort Quitman flows to Mexico with the average calculation of 36,218 acre-feet per year where data was not available.

Given the 1944 Treaty's silence on Fort Quitman allocation and Mexico's waiver of rights in the 1906 Convention, one would expect an IBWC Minute to establish a 50/50 allocation practice due to the apparent vagueness. This would provide Texas water rights holders with a reason for why they are not receiving water, especially since Mexico

111 Carlos Rubinstein, interview by author, October 23, 2015.
112 The IBWC water reporting data available on the website stopped being published after 2005. See Appendix B.
113 The total amount allocated to Mexico during 1958-2006 was 1,774,717.25 acre-feet according to IBWC water bulletins, and the average yearly allocation was 36,218. This report calculates the approximate total delivery to Mexico from 1958-2016 as (1,774,717.25 + 36,218*10 years) 2,173,123.16 acre-feet. See Appendix B for the data set associated with this calculation.
114 TCEQ, "Rio Grande Watermaster Program," accessed April 1, 2015, https://www.tceq.texas.gov/permitting/water_rights/wmaster/rgwr/riogrande.html
115 KRGV, "Mexico Pays Rio Grande Water Debt" (February 24, 2016), accessed March 11, 2016, http://www.krgv.com/story/31303522/mexico-pays-rio-grande-water-debt.

waived its rights to the upper segment upon receipt of 60,000 acre-feet each year for agricultural use. The 1944 Treaty endowed the IBWC with the judicial mechanism of interpreting the treaty. The IBWC has used this tool to clarify over 400 ambiguities falling under its jurisdiction.

Where is there a record of the IBWC allocating the Rio Grande at Fort Quitman? The USIBWC has cited internal memoranda, historical practices, technical expertise, and Minutes regarding the construction of Falcon and Amistad reservoirs as justification of the allocation. None of the materials noted by Commissioner Drusina to justify the 50/50 allocation practice are prescribed methods of dispute resolution in the 1944 Treaty mandate.

The TCEQ represented Texas' interests in a five-year attempt to gain clarity from the IBWC on this matter, to no avail. The TCEQ website states:[116]

> Many government entities and water right holders firmly believe, and the evidence points to the fact that the waters of the Rio Grande below El Paso are allocated entirely to the United States under the 1906 Convention with Mexico. The IBWC has historically allocated 50 percent of this water to Mexico when it reaches Fort Quitman, Texas. Fort Quitman is where the 1944 Treaty on the Rio Grande begins. We believe this water belongs entirely to the United States. Allocating the water to Mexico deprives our Texas users of their water supplies.

Various stakeholders in the Rio Grande have also disputed the 50/50 allocation practice including the Lower Rio Grande Valley Water District Managers' Association, the Rio Grande Regional Water Authority, Rio Grande Watermaster Advisory Committee, and the Rio Grande Regional Water Planning Group representatives. These entities continue to go without acknowledgment from the IBWC despite their efforts to contact Commissioner Drusina for a response (see Appendix O for various letters written by these and other concerned groups).

---

116 TCEQ, "Rio Grande International Water Accounting - Fort Quitman, Texas," accessed October 15, 2015, https://www.tceq.texas.gov/border/international-water.html/.

Chapter 9: Discussion of Options

Some stakeholders have called for a complete abandonment of the 1944 Treaty and an overhaul of IBWC functions. Other stakeholders recognize the 1944 Treaty appears to be here to stay, with roots too deep in economic and diplomatic relations to be overthrown. Reality requires the "Fort Quitman debate" outlined in this report to be handled cautiously. The Minutes Process is the prescribed method of dispute resolution under the 1944 Treaty, which only applies to the flows below Fort Quitman. Therefore, this report does not discuss resolution of the 50/50 Fort Quitman allocation through a Minute agreement. The debate over allocation and Mexican compliance with the Treaty's schedule has created diplomatic disagreements and complicated relations on both sides of the border. This report will outline the advantages and challenges of two courses of action: diplomatic means and legal action.

DIPLOMATIC MEANS

USIBWC Commissioner Drusina's last correspondence to the TCEQ directed further inquiries into the Fort Quitman debate to the Legal Advisor of the Department of State's Bureau of Western Hemisphere Affairs. This may be the best next step in finding a resolution to the discrepancy between the treaty text and the IBWC practice of 50/50 allocation. Parties could approach the Department of State with a call to investigate the IBWC practice. For example, Appendix P provides a sample letter that reviews the history of communication between the USIBWC and TCEQ, and asks the Advisor to issue an opinion on the debate.

Arbitration through the Commission for Environmental Cooperation

The 1944 and 1906 treaty violations cannot be addressed by the Secretariat of the Commission for Environmental Cooperation (CEC), a commission established by the

U.S., Canada, and Mexico to implement the North American Agreement on Environmental Cooperation (NAAEC).[117] The NAAEC represents the commitment of the NAFTA parties to protect the environment and requires the three countries to enforce its environmental laws. A party's failure to meet the NAAEC's environmental obligations is subject to the same dispute resolution mechanism for commercial violations under NAFTA. In other words, Canada, the U.S., and Mexico can initiate dispute resolution through the CEC if an environmental obligation is not being enforced. Articles 14 and 15 and Part Five of NAAEC allow any citizen, non-governmental organization, or party to the agreement to make such a complaint.[118] However, binational waters of the Rio Grande and its associated treaties concern property rights, not environmental law issues. The NAAEC defines "environmental law" in Article 45.2.a-b as:

> (a) "environmental law" means any statute or regulation of a Party, or provision thereof, the primary purpose of which is the protection of the environment, or the prevention of a danger to human life or health, through
> (i) the prevention, abatement or control of the release, discharge, or emission of pollutants or environmental contaminants,
> (ii) the control of environmentally hazardous or toxic chemicals, substances, materials and wastes, and the dissemination of information related thereto, or
> (iii) the protection of wild flora or fauna, including endangered species, their habitat, and specially protected natural areas in the Party's territory, but does not include any statute or regulation, or provision thereof, directly related to worker safety or health.
> (b) For greater certainty, the term "environmental law" does not include any statute or regulation, or provision thereof, the primary purpose of which is managing the commercial harvest or exploitation, or subsistence or aboriginal harvesting, of natural resources.

117 The NAAEC is the environmental parallel-agreement of the North American Free Trade Agreement (NAFTA).

118 "North American Free Trade Agreement" (April 16, 2012), accessed February 24, 2016, http://www.naftanow.org/agreement/default_en.asp.

The binational allocation of waters at Fort Quitman does not pertain to environmental law as defined above. Therefore the SEM process does not appear to be a viable resolution mechanism for this report's debate.

Articles 16-18 of the NAAEC establish three advisory committees to help inform and consult with NAAEC representatives:[119]

1. Joint Public Advisory Committee (JPAC): The JPAC is comprised of 15 representatives of the public, five appointed by each of the Parties, to advise the CEC. In the U.S., JPAC members are appointed by the President.
2. National Advisory Committee (NAC): advises the EPA Administrator in his/her capacity as the U.S. Representative to the CEC Council. The NAC is composed of 14-15 members selected from environmental groups, business and academia.
3. Governmental Advisory Committee (GAC): advises the EPA Administrator in his/her capacity as the U.S. Representative to the CEC Council. The GAC is composed of 14-15 members from state, local, and tribal governments.

The latter two committees provide advice to the U.S. Representative (the EPA Administrator, currently Gina McCarthy) on a wide range of strategic, scientific, technological, regulatory, and economic issues related to implementation and elaboration of the NAAEC. The NAC and GAC provide an avenue for public input and help influence U.S. policies that improve the environment and health conditions of North America.[120] However, matters of the 1906 and 1944 Treaties pertain only to property rights, not environmental law, and therefore fall outside the purview of all three advisory committees.[121]

119 Environmental Protection Agency, "National and Governmental Advisory Committees," accessed February 25, 2016, http://www.epa.gov/faca/nac-gac.
120 Ibid.
121 For more information on the JPAC, see http://www.cec.org/background-info.

LEGAL ACTION

Does the State of Texas have *standing* to sue the federal government over the 1944 and 1906 Treaties? "Standing" is a term given to a party who has suffered (or is likely to suffer) an injury that can be traceable to the conduct of the defendant.[122]A case must also be "ripe," or justiciable, meaning the alleged harm must "ordinarily be immediate rather than merely speculative, and the case must not be moot….still be ripe at the time of adjudication." Stakeholders of the Fort Quitman allocation debate must determine what their legal standing is and whether a federal court and ultimately the Supreme Court will consider damages from IBWC's erroneous interpretation of the treaties. The United States confirmed the supremacy of treaties over state law and the ability for the Supreme Court to enforce that supremacy in *Ware v. Hylton*.[123] The 1944 Treaty grants the IBWC diplomatic immunity. Therefore, any legal action against the United States would be brought by the Texas Attorney General against the U.S. Department of State (per 1944 Treaty, Article 2). Stakeholders must decide between three courses of legal action: (1) a case against the Department of State for failure to enforce the 1906 Convention; (2) a case against the Department of State for the misinterpretation of the 1944 Treaty; (3) both actions. The first option asserts that the IBWC should be applying Mexico's waiver of flows to Fort Quitman water. The second option asserts that the IBWC is interpreting the 1944 Treaty to apply to Fort Quitman flows in error. Both claims are maintained in this report but it is unclear whether one argument or the other has a better legal opportunity. This section is intended to provide a brief discussion of the challenges and realities stakeholder should consider before taking legal action. A summary of the damages reviewed in this report are shown in Table 9.1 below.

122 Curtis Bradley, International Law in the U.S. Legal System, 2nd edition (New York: Oxford University Press, 2015), 3-4.
123 Ware v. Hylton, 3 U.S. (3 Dall.) 199 (1796).

Table 9.1: Summary of Damages from Water Shortages

Number	Type	Description
1	Loss of water	Approximately 2.1 million acre-feet since 1985
2	Damages to Agricultural Sector due to crop revenue loss	$400 million/year
3	Damages from loss of water right sales	$5.25-$5.88 billion/year
4	Damages from loss of spot-market sale	$3.6-$5.4 million/year
5	Damages to municipal users for supplemental water supplies	Rio Hondo's $30,000 expense for push-water; more research needed for other municipal expenses

Note: Damages 3 and 4 are mutually exclusive in terms of the total damages described above. It is more likely that the actual damages are a combination of both. Also, these values do not reflect discount rates, and are intended to provide a simplified damage estimation.

The "Political Question" Doctrine and the Chevron Deference

A case may be dismissed on grounds of the *political question doctrine*, which enables a Court to decide not to adjudicate a case if the matter is political in nature. The six criteria for the doctrine were defined in *Baker v. Carr*, when Tennessee citizens alleged that a 1901 law to apportion seats for the state's General Assembly was ignored. Accordingly, a case is considered a *political question* if the matter includes the following:

> (1) a textually demonstrable constitutional commitment of the issue to a coordinate political department;
> (2) or a lack of judicially discoverable and manageable standards for resolving it;
> (3) or the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion;

(4) or the impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government;
(5) or an unusual need for unquestioning adherence to a political decision already made;
(6) or the potentiality of embarrassment from multifarious pronouncements by various departments on one question.[124]

The political question doctrine is frequently applied by lower courts in matters of foreign affairs.[125] The Supreme Court has noted that "it is error to suppose that every case or controversy which touches foreign relations lies beyond judicial cognizance."[126] The doctrine is designed to protect the prerogatives of the federal political branches,[127] which by definition extends to the Department of State in a suit for wrongful enforcement of a treaty.

Fort Quitman water stakeholders ought to consider *Chevron USA v. Natural Resources Defense Council*, when the Supreme Court decided to favor the federal agency concerning a conflicting interpretation of law. The Court declared that the enforcement of unclear statutes must be deferred to the reasonable interpretation of the agencies charged with their interpretation.[128] The Court sided with the U.S. Environmental Protection Agency (EPA) when its 1981 regulations, promulgated after the Clean Air Act Amendments of 1977, allowed states to adopt a plant-wide definition of the term "stationary source." This rule allowed existing plants that contained several pollution-emitting devices to install or modify one piece of equipment (without meeting all the conditions of the permit) as long as the overall plant stayed within emissions standards. Although this allowance was not expressly granted by Congress, the Court ruled that the

124 Baker v. Carr, 369 U.S. 186, 217 (1962).
125 Bradley, International Law in the U.S. Legal System, 5; and see also Goldwater, 444 U.S. at 1002-05 (plurality opinion), concluding that the issue of whether the president can unilaterally withdraw the U.S. from a treaty is a political question.
126 Ibid., Baker, 369 U.S. at 211.
127 Bradley, International Law in the U.S. Legal System, 5.
128 Chevron U.S.A. v. Natural Resources Defense Council, 467 U.S. 837 (1984).

EPA's rule was a "permissible construction of the statutory term."[129] It observed that the precise issue was not "squarely addressed in the legislative history."[130] Further, the Court decided:

> If…the court determines Congress has not directly addressed the precise question at issue, the court does not simply impose its own construction on the statute, as would be necessary in the absence of an administrative interpretation. Rather, if the statute is silent or ambiguous with respect to the specific issue, the question for the court is ***whether the agency's answer is based on a permissible construction of the statute. The power of an administrative agency to administer a congressionally created program necessarily requires the formulation of policy and the making of rules to fill any gap left, implicitly or explicitly, by Congress***…. If Congress has explicitly left a gap for the agency to fill, there is an express delegation of authority to the agency to elucidate a specific provision of the statute by regulation. Such legislative regulations are given controlling weight unless they are arbitrary, capricious, or manifestly contrary to the statute. Sometimes the legislative delegation to an agency on a particular question is implicit, rather than explicit. ***In such a case, a court may not substitute its own construction of a statutory provision for a reasonable interpretation made by the administrator of an agency***.[131]

This Court ruling is known as the *Chevron deference* and set a precedent that could affect litigation of the Fort Quitman water debate. If the Court favors the federal agency's interpretation of law when the statute lacks clarity, it may favor the IBWC's (or State Department's) decision to apply 1944 Treaty allocation to Fort Quitman's flows.

Treaty Interpretation and the U.S. Court System

One might argue that treaties and international law do not follow the *Chevron* deference. Under the *Skidmore deference*, weight given to the executive branch's interpretation of law "depends upon the thoroughness evident in its consideration, the validity of its reasoning, its consistency with earlier and later pronouncements, and all the

129 Ibid, 842-866.
130 Ibid., 842 (quoting 685 F.2d at 726).
131 Ibid., 843-844.

factors which give it power to persuade, if lacking power to control."[132] In other words, Texas could invoke the *Skidmore deference* and claim that the IBWC has not provided a thoroughness of consideration in establishing the 50/50 allocation practice. As seen in the materials reviewed for this report, the evidence cited in Commissioner Drusina's letters are non-dispositive.

Among the legal tools at its disposal, the executive branch (e.g. the U.S. Department of State) can submit a "statement of interest" to the court expressing concerns about the foreign relations implication of a particular case. Courts may use these statements in finding a case nonjusticiable and invoke the *political question* doctrine to dismiss the case. Moreover, U.S. courts construe treaties "consistent with the shared expectations of the contracting parties" and consider evidence of post-ratification understandings of the contracting parties.[133] *Abbott v. Abbott* provides an example of how the Court approaches treaty interpretation. This case concerned the Hague Convention on the Civil Aspects of International Child Abduction, questioning whether a parent has a "right of custody" if consent is given by the other parent to take a child outside the country. In concluding there was a right of custody, the court explained its "inquiry is shaped by the text [of the treaty]; the views of the United States Department of State; decisions addressing the meaning of 'rights of custody' in courts of other contracting states; and the purpose [of the treaty]."[134]

The court in *Abbott* stated the judiciary is to grant "great weight" to the executive branch's interpretation of treaties. As stated by international law expert Curtis Bradley:

> This deference stems from a variety of factors, including the lead role of the executive branch in negotiating treaties, its status as the principal "organ" of the United States in international communications, its expertise in treaty matters and

132 Skidmore v. Swift & Co., 323 U.S. 134, 140 (1944). (emphasis added).
133 Bradley, International Law in the U.S. Legal System, 67.
134 Ibid., 67; Abbott v. Abbott, 560 U.S. 1, 9-10 (2010).

> foreign affairs more generally, and its special access to information concerning the likely effect of particular treaty interpretations.[135]

In fact, a study concluded that judicial deference to the executive branch "may be the single best predictor of interpretive outcomes in American treaty cases."[136] However, Bradley highlights a 2006 Supreme Court decision in which little deference was given to the executive branch's interpretation of the Geneva Convention, concerning the treatment of various people during armed conflicts.[137] In *Boumediene v. Bush*,[138] the Supreme Court ruled against the Bush administration in 2008 when Guantánamo detainees were denied U.S. constitutional rights. The Bush administration asserted that Guantánamo was leased from Cuba under a 1903 treaty, so was not in the U.S. and U.S. constitutional rights need not be extended to the area. The Supreme Court disagreed, holding that for constitutional purposes, Guantánamo Bay was part of the U.S. and detainees were granted the same rights as if they were held in Washington, D.C.[139]

The case law discussed here suggests Fort Quitman stakeholders may not be satisfied with a decision from the Supreme Court. Texas would need to prove that the IBWC and U.S. Department of State did not rely on a reasonable knowledge of the treaties in their allocation practice and also overcome the court's executive branch bias. Furthermore, stakeholders would need to show that the case is not a *political question* and assuage the court's hesitance to disrupt foreign affairs. This would be challenging.

---

135 Bradley, International Law in the U.S. Legal System, 68.
136 Bradley, International Law in the U.S. Legal System, citing David Bederman, "Revivalist Canons and Treaty Interpretation," 41 UCLA L. Rev. 953, 1015 (1994).
137 Bradley, International Law in the U.S. Legal System, 68.
138 Boumediene v. Bush, 553 U.S. 723 (2008)
139 Noah Feldman, "When Judges Make Foreign Policy," The New York Times Magazine (September 25, 2008), accessed March 16, 2016, http://www.nytimes.com/2008/09/28/magazine/28law-t.html?_r=0.

What Would a Domestic Decision Accomplish?

Whether stakeholders of Fort Quitman take legal or diplomatic action, what effect could this have on the actual IBWC policy? Decisions of IBWC policy are generally obtained through agreement from both sovereign sides of the agency. Would a diplomatic or legal decision within the U.S. circumvent the need for the Mexican IBWC Commissioner's approval? The answer to this question is fundamental before domestic actions can remedy Fort Quitman misallocation. However, as long as the misinterpretation of the treaties persist, Texas water rights holders will continue being shorted Fort Quitman flows.

Chapter 10: Conclusion

The two treaties governing the binational segment of the Rio Grande allocate the flows at Fort Quitman 100 percent to the United States. The International Boundary and Water Commission is charged with implementing this allocation, yet they have been giving 50 percent of the water to Mexico since approximately 1958. The actual amount given to Mexico in error is estimated at 2.1 million acre-feet. The 50/50 allocation practice continues without any resolution currently being pursued. Surface water in the United States belongs to the state in which it is located, which means that Texas water rights holders on the Rio Grande are being shorted vast quantities that limit the area's economic growth and jeopardize municipal water supplies.

The economic damages of this misallocation are real and continuing. The impact of decreased flows in the Rio Grande on the agricultural sector of the Lower Rio Grande Valley was approximately $400 million in 2013.[140] The Texas border region is home to increasing urban growth and intensive agriculture and ranching activity. There are also many small municipalities in the Lower Rio Grande Valley like Rio Hondo, which was forced to purchase additional push water at municipal rates when irrigation water was curtailed due to shortages in the Rio Grande. During an extended period of drought or lack of Mexico's deliveries from the Rio Grande, expenses like this could be devastating to cities like Rio Hondo, which has a budget of approximately $1.1 million per year.[141]

In 2008, the Texas Commission on Environmental Quality, with cooperation from various Rio Grande interest groups, attempted to remedy this misallocation through a five-year correspondence with the USIBWC. USIBWC held steadfast to its claim that

140 Luis A. Ribera and Dean McCorkle, "Economic Impact Estimate of Irrigation Water Shortages on the Lower Rio Grande Valley Agriculture" (Texas A&M Agrilife Extension, 2013), Accessed January 15, 2016, http://www.tceq.state.tx.us/assets/public/border/economic-impact-LRGV.pdf.

141 Representative Eddie Lucio III, interview by author, March 15, 2016.

Fort Quitman flows are allocated under the 1944 Water Treaty and therefore not subject to Mexico's waiver of flows under the 1906 Convention. The 1944 Treaty allocates waters of the main stem of the Rio Grande 50/50 between the U.S. and Mexico, and USIBWC Commissioner Edward Drusina cited various IBWC Minutes, internal memoranda, and internal expertise to justify the equal division of Fort Quitman flows. However, a plain-language reading of the two treaties clearly indicates Fort Quitman is indeed allocated under the 1906 Convention and therefore belongs 100 percent to the United States.

Without willing participation from the IBWC to negotiate the resolution of their treaty misinterpretation, Rio Grande stakeholders must consider alternative dispute mechanisms. Diplomatic resolution includes approaching the U.S. Department of State to investigate the matter and issue an opinion. Legal means could be considered more aggressive, and include bringing a case against the USDoS before the U.S. Supreme Court. The 1944 Treaty grants the IBWC diplomatic immunity, so legal action against its practices must be directed to the USDoS. However, the Supreme Court has historically given preference to federal treaty interpretation and matters where statutes are ambiguous. The executive branch can submit a statements of interest to a court when a case concerns foreign relations, which could lead a court to decide a case falls under the *political question* doctrine. Therefore, Rio Grande stakeholders may be dissatisfied with the outcome of legal efforts in the Supreme Court. Moreover, a U.S. decision to amend the allocation practice may require the approval of the Mexican Section of the IBWC to effect the change, a fact that renders a remedial process even more complex.

Although diplomatic means to resolve the IBWC's erroneous allocation of Fort Quitman flows also might not remedy the matter, there is no reason to avoid resolving this issue. The average amount of Fort Quitman flows being given to Mexico in error is

approximately 36,218 acre-feet per year. If spot-market water (wet water) is sold at $100-150/acre-feet, the IBWC's erroneous allocation to Mexico has cost the State of Texas $210-$315 million since 1958, or $3.65.4 million per year. If perpetual water rights (paper water) are sold for $2,500-$2,800/acre-feet, damages could be as much as $5.88 billion. These damages will only increase if nothing is done to correct the misallocation of Fort Quitman flows.

Appendix Index*

LABEL	DOCUMENT
A	1906 Convention
B	1944 Treaty
C	Yearly Water Totals of the Rio Grande at Fort Quitman, Texas
D	Minute 11 (November 14, 1922)
E	Minute 12 (November 27, 1923)
F	TCEQ/USIBWC Correspondence
G	Minute 182 with Engineering Report (September 23, 1946)
H	Minute 187 with Engineering Report (December 20, 1947)
I	Minute 207 with Engineering Report (June 19, 1958)
J	Minute 210 with Engineering Report (January 12, 1961)
K	Memorandum of Engineering Conference on Water Accounting, May 27 & 28, 1953 (June 16, 1953)
L	Memo to the Commissioner through Principal Engineer (Supervising) Lyman R. Flook, Jr. regarding Water Accounting (September 21, 1953)
M	Memo to the Principal Engineers of the U.S. and Mexican Section from Hydraulic Engineer Lyman R. Flook, Jr., of the U.S. Section and Engineer Jenaro Paz Reyes of the Mexican Section. Regarding Proposed Procedures for Rio Grande Water Accounting (August 4, 1955)
N	Procedures for Rio Grande/Río Bravo Water Accounting (February 10, 1958)
O	Rio Grande Stakeholder Letters to the USIBWC
P	Draft letter to the Legal Advisor of the Bureau of Western Hemisphere Affairs, U.S. Department of State

*See supplemental files

References

Baker v. Carr. 369 U.S. 186, 217 (1962).

Boumediene v. Bush. 553 U.S. 723 (2008)

Bradley, Curtis. *International Law in the U.S. Legal System, 2nd edition*. New York: Oxford University Press, 2015.

Caminetti v. United States. 242 U.S. 470, 485 (1917).

CBSNews. "Officials In Border Plane Crash Found Dead." September 17, 2008. Accessed March 10, 2016. http://www.cbsnews.com/news/officials-in-border-plane-crash-found-dead/.

Chevron U.S.A. v. Natural Resources Defense Council. 467 U.S. 837 (1984).

Duke University. "U.S. Treaties & Agreements." Accessed September 17, 2015. https://law.duke.edu/ilrt/treaties_2.htm.

Eaton, David J., and David Hurlbut. *Challenges in the Binational Management of Water Resources in the Rio Grande-Río Bravo*. Austin, Tex.: Lyndon B. Johnson School of Public Affairs, University of Texas at Austin, 1992.

Environmental Protection Agency. "National and Governmental Advisory Committees." Accessed February 25, 2016. http://www.epa.gov/faca/nac-gac.

Escondido Mut. Water Co. v. La Jolla Band of Mission Indians. 466 U.S. 765, 772 (1984) [quoting North Dakota v. United States, 460 U.S. 300, 312 (1983)].

Feldman, Noah. "When Judges Make Foreign Policy." *The New York Times Magazine*. September 25, 2008. Accessed March 16, 2016. http://www.nytimes.com/2008/09/28/magazine/28law-t.html?_r=0.

Garner, Bryan A., ed. *Black's Law Dictionary, 3rd Pocket edition*. St. Paul, MN: Thomson/West, 2006.

Horton, Harry W. *United States-Mexican Treaty of February 3, 1944, and Protocol of November 14, 1944: Partial Analysis of Jurisdiction, and Powers Vested in Commission and American Commissioner, and Analysis of Some Terms Making Treaty Ambiguous and Unworkable*. Hearings before the Committee on Foreign Relations United States Senate, 79th Congress, 1st Session on Treaty with Mexico Relating to the Utilization of the Waters of Certain Rivers, Part 3: February 5-10, 1945.

Hundley, Norris. *Dividing the Waters; a Century of Controversy between the United States and Mexico* (Berkeley: University of California Press, 1966.

Immigration and Naturalization Serv. v. Phinpathya. 464 U.S. 183, 189 (1984) [quoting American Tobacco Co. v. Patterson, 465 U.S. 63, 68 (1982)].

International Boundary & Water Commission. *Convention of March 1, 1889: Convention Between the United States of America and the United States of Mexico, To facilitate the carrying out of the Principles contained in the Treaty of November 12, 1884, and to avoid the difficulty occasioned by reason of the changes which take place in the beds of the Rio Grande and Colorado Rivers*. Accessed November 18, 2016. http://www.ibwc.state.gov/Files/TREATY_OF_1889.pdf.http://www.ibwc.state.gov/Files/TREATY_OF_1889.pdf

International Boundary & Water Commission. *Convention of November 12, 1884: Convention Between the United States of America and the United States of Mexico, Touching the International Boundary Line where it follows the Bed of the Rio Grande and the Rio Colorado*. Accessed November 18, 2016. http://www.ibwc.state.gov/Files/TREATY_OF_1884.pdf.

International Boundary & Water Commission. "Falcon Dam & Power Plant." Accessed September 14, 2015. http://www.ibwc.state.gov/Organization/Operations/Field_Offices/Falcon.html.

International Boundary & Water Commission. "History of the International Boundary and Water Commission." Accessed September 14, 2015. http://ibwc.state.gov/About_Us/history.html.

International Boundary & Water Commission, US Section. "Rio Grande Boundary Maps." Accessed September 1, 2015. http://www.ibwc.state.gov/GIS_Maps/Boundary_Image_Maps.html.

International Boundary & Water Commission. "Treaties Between the U.S. and Mexico." Accessed September 1, 2015. http://www.ibwc.state.gov/Treaties_Minutes/treaties.html.

International Boundary & Water Commission, US Section. "Rio Grande Boundary Maps." Accessed September 1, 2015. http://www.ibwc.state.gov/GIS_Maps/Boundary_Image_Maps.html.

International Boundary & Water Commission, US Section. "U.S.-Mexico Boundary." Accessed September 15, 2015. http://www.ibwc.state.gov/Files/US-Mx_Boundary_Map.pdf.

Jamail, M., and Stephen Mumme. "The International Boundary and Water Commission as a Conflict Management Agency in the U.S.-Mexico Borderlands." *Social Science Journal* 19 (1982): 47-48.

Jarvis, Glenn. "Legal and Institutional Aspects of International Water Allocation on the Rio Grande." Presented at the Binational Rio Grande Summit: Cooperation for a Better Future, Reynosa, Tamaulipas, and McAllen, Texas, November 2005.

Jarvis, Glenn. "The Rio Grande From Ft. Quitman to the Gulf: Water Rights and Needs in the Lower Rio Grande." Presented at Laws of the Rio Grande del Norte: An Interstate Seminar, Albuquerque, New Mexico, April 1991.

KRGV. "Mexico Pays Rio Grande Water Debt." February 24, 2016. Accessed March 11, 2016. http://www.krgv.com/story/31303522/mexico-pays-rio-grande-water-debt.

Lucio, Eddie, III, Representative. Interview by author. March 15, 2016.

Maximov v. United States. 373 U.S. 49, 54 (1963).

McCarthy, Robert J. "Executive Authority, Adaptive Treaty Interpretation, and the International Boundary and Water Commission, U.S.-Mexico." *University of Denver Water Law Review* 14 (2011): 197.

Mosqueda, Priscila. "On the Border, a Struggle over Water." *The Texas Observer*. June 10, 2013. Accessed March 11, 2016, http://www.texasobserver.org/on-the-border-a-struggle-over-water/.

Mumme, Stephen P. "Innovation and Reform in Transboundary Resource Management: A Critical Look at the International Boundary and Water Commission, United States and Mexico." *Natural Resources Journal* 33 (1993): 93-120.

Mumme, Stephen P. "Revising the 1944 Water Treaty: Reflections on the Rio Grande Drought and Other Matters." *Journal of the Southwest* 45, no. 4 (2003): 649-670.

Mumme, Stephen, Ph.D. Telephone interview by author. July 19, 2015.

National Public Radio, State Impact. "Everything You Need to Know About the Texas Drought." Accessed September 1, 2015. https://stateimpact.npr.org/texas/tag/drought/.

National Weather Service, Southern Region Headquarters. "March 2013 Drought Update." March 2013. March 15, 2016. http://www.srh.noaa.gov/images/bro/news/2013/pdf/marchdroughtupdate.pdf.

"North American Free Trade Agreement." April 16, 2012. Accessed February 24, 2016. http://www.naftanow.org/agreement/default_en.asp.

Ribera, Luis A., and Dean McCorkle. "Economic Impact Estimate of Irrigation Water Shortages on the Lower Rio Grande Valley Agriculture." Texas A&M Agrilife Extension. 2013. Accessed January 15, 2016. http://www.tceq.state.tx.us/assets/public/border/economic-impact-LRGV.pdf.

Rubinstein, Carlos. "The Price Texas Pays for Mexico's Water Debt." *Texas Water Journal* 6, no. 1 (2015): 1-10.

Sale v. Haitian Ctrs. Council, Inc. 509 U.S. 155, 194 [quoting Sumitomo Shoji Am., Inc. v. Avagliano, 457 U.S. 176, 185 (1982)].

Sandia National Laboratories. "Data Collection for Cooperative Water Resources Modeling in the Lower Rio Grande Basin, Fort Quitman to the Gulf of Mexico."

Issued by Sandia National Laboratories, operated for the United States Department of Energy by Sandia Corporation. October 2004.

Skidmore v. Swift & Co. 323 U.S. 134, 140 (1944).

SpanishDict. "Translate." Accessed July 21, 2015. http://www.spanishdict.com/translate/desde, http://www.spanishdict.com/translate/hasta.

Texas Commission on Environmental Quality. "Rio Grande International Water Accounting - Fort Quitman, Texas." Accessed October 15, 2015. https://www.tceq.texas.gov/border/international-water.html/.

Texas Commission on Environmental Quality. "Rio Grande Watermaster Program." Accessed March 16, 2016. https://www.tceq.texas.gov/permitting/water_rights/wmaster/rgwr/riogrande.html.

Texas Natural Resource Conservation Commission. "State of the Rio Grande and the Environment of the Border Region: Strategic Plan, Fiscal Years 2003-2007, Vol. 3." Austin, Tex. June 2002.

The Amiable Isabella. 19 U.S. 1, 134 Wheat. 1, 71 (1821).

The White House. "The Constitution." Accessed September 17, 2015. https://www.whitehouse.gov/1600/constitution.

Timm, Charles. "Some Observations on the Nature and Work of the International Boundary Commission, United States and Mexico." *The Southwestern Social Science Quarterly* 15, no. 4 (1935): 271-297.

Timm, Charles. Testimony. Hearings before the Committee on Foreign Relations United States Senate, 79th Congress, 1st Session on Treaty with Mexico Relating to the Utilization of the Waters of Certain Rivers, Part 3: February 5-10, 1945.

Umhoff, Allie Alexis. "An Analysis of the 1944 U.S.-Mexico Water Treaty: Its Past, Present, and Future." *Environmental Law and Policy Journal* 32, no. 1 (2008): 69-98.

United States v. Missouri Pac. R.R. Co. 278 U.S. 269, 278 (1929).

United States v. Stuart. 489 U.S. 353, 371 (1989).

Ware v. Hylton. 3 U.S. (3 Dall.) 199 (1796).

Z and F Corporation v. Hull. 114 Fed. 2nd 464.