

Respective Obligations of the Upper and Lower Basins Regarding the Delivery of Water to Mexico: A Review of Key Legal Issues

A product of the Colorado River Governance Initiative¹

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¹ This research was primarily led and conducted by CRGI Visiting Fellow Jason Robison in collaboration with the full CRGI research team. It is a "working document," subject to revision, and is not offered as a definitive legal opinion, but rather an assemblage of relevant ideas and source materials. Comments are welcomed.

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Introduction

Article III(c) of the Colorado River Compact (Compact) establishes the shared obligations of the Upper and Lower Basins to deliver water to Mexico in fulfillment of the U.S.-Mexico Treaty of 1944.² It is generally regarded as the highest priority within the Law of the River apportionment scheme.³ However, several interpretive issues exist concerning the meaning of Article III(c), each of which pits the Upper and Lower Basins against one another with respect to their respective delivery obligations toward Mexico's treaty entitlement to Colorado River water. This document addresses four key issues regarding the Mexican apportionment: (1) *tributaries issue* (the treatment of Lower Basin tributaries under Article III(c)); (2) *"surplus" issue* (the definition of "surplus" waters within Article III(c)); (3) *evaporation issue* (the accounting of evaporation losses for purposes of Article III(c)); and (4) *delivery issue* (the timing of (and credit for) deliveries made pursuant to Article III(c)).

As is shown below, these are complex and interrelated issues, with the preponderance of the evidence seeming to favor each sub-basin's position on two of the four issues. Whether our

² Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande, Treaty Between the United States of America and Mexico (1944). The treaty provisions fleshing out U.S. delivery obligations for Colorado River water include Art. 10 (establishing Mexico's entitlement to 1.5 maf annually); Art. 11 (designating points of delivery for Mexico's entitlement); Art. 15 (establishing delivery schedule for Mexico's entitlement). Interpretive issues exist concerning the meaning of some of these provisions – e.g., "extraordinary drought" clause in Art. 10 – but these issues (although interrelated) fall beyond the scope of the Art. III(c) issues covered in this document .

³ For commentary describing the Mexican treaty obligation as the highest priority within the Law of the River's apportionment scheme, see Lawrence J. MacDonnell et al., *The Law of the Colorado River: Coping with Severe Sustained Drought*, 31 Water Resources Bull. 825, 826 (1995); John U. Carlson, *The Colorado River Compact: A Breeding Ground for International, National, and Interstate Controversies*, Natural Resources Law Center, University of Colorado School of Law, June 5-7, 1989. Provisions supporting this treatment of the Mexican treaty obligation include Colorado River Compact, Art. III(c) (requiring Upper and Lower Basins to make equal contributions to Mexican treaty obligation when surplus is not available); Colorado River Basin Project Act, § 202 (declaring "the satisfaction of the requirements of the Mexican Water Treaty from the Colorado River constitutes a national obligation"); Colorado River Basin Project Act, § 602(a)(1) (designating satisfaction of Art. III(c) as first priority of releases of water from Lake Powell); Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs Pursuant to the Colorado River Basin Project Act of September 30, 1968, Art. III(1)(a) (designating Mexican Treaty obligations as first priority of releases of water from Lake Mead).

analysis would comport with any potential judicial ruling is, of course, speculative,⁴ but that is largely irrelevant to the point of our analysis, which is primarily to illustrate that fulfilling the Mexican delivery obligation provides an important and ongoing point of legal uncertainty and interbasin tension.

Tributaries Issue

The tributaries issue can be stated succinctly: Are the Lower Basin tributaries encompassed within the apportionment scheme established by the Compact – specifically, in relation to the Lower Basin’s obligation to deliver treaty water to Mexico under Article III(c)?⁵

Emboldened by the Supreme Court’s holding in *Arizona v. California*, 373 U.S. 546 (1963) – which excluded the Lower Basin tributaries from the apportionment scheme assertedly established for that sub-basin in the Boulder Canyon Project Act (BCPA) – the Lower Basin states allege that these tributaries likewise are excluded from the apportionment scheme set forth in the Compact, including in relation to determining whether “surplus” water exists to satisfy the Mexican delivery obligation under Article III(c). The Upper Basin states contend to the contrary, noting the inapplicability of the holding in *Arizona v. California* (1963) to any interpretation of the Compact (*i.e.*, as opposed to interpretations of the BCPA), and pointing to an array of textual and historical material supporting inclusion of the Lower Basin tributaries for

⁴ It is worth noting that the analytical methodology used in this document mirrors the analytical approach of the United States Supreme Court when engaged in statutory interpretation. *See, e.g., Arizona v. California*, 373 U.S. 546 (1963) (demonstrating Supreme Court’s reliance on text, statutory context, and legislative history when interpreting provisions of Boulder Canyon Project Act).

⁵ The inclusion of the Lower Basin tributaries within the Compact’s apportionment scheme also implicates the scope of the Upper and Lower Basin entitlements set forth in Articles III(a) and (b). The Lower Basin’s entitlement to water from the “Colorado River System” would be considerably larger if this term were interpreted to afford the Lower Basin use of 8.5 maf per year from the mainstem alone.

purposes of determining the sub-basins' Article III(c) delivery obligations.⁶

The evidence appears virtually overwhelming that the Lower Basin tributaries fall within the scope of the Compact's apportionment scheme relevant to that sub-basin's Mexican delivery obligation under Article III(c). Support for this view comes from the material canvassed in the four sections below – *i.e.*, (1) the text of Article III(c) and related provisions incorporated therein; (2) the provisions comprising the statutory context surrounding Article III(c); (3) the Negotiation Minutes addressing Article III(c) and inclusion of the Lower Basin tributaries within the Compact's apportionment scheme; and (4) the occurrence of several post-negotiation events involving acknowledgements by the Lower Basin that Article III(c) extends to the tributaries and revealing the Supreme Court's seemingly affirmative view on this issue.

Article III(c)'s Text

The text of Article III(c) appears plain in its treatment of the Lower Basin tributaries:

“If, as a matter of international comity, the United States of America shall hereafter recognize in the United States of Mexico any right to the use of any waters of the *Colorado River System*, such waters shall be supplied first from the waters which are surplus over and above the aggregate of the *quantities specified in paragraphs (a) and (b)*; and if such surplus shall prove insufficient for this purpose, then, the burden of such deficiency shall be equally borne by the *Upper Basin* and the *Lower Basin*, and whenever necessary the States of the Upper Division shall deliver at Lee Ferry water to supply one-half of the deficiency recognized in addition to that provided in paragraph (d).” (Emphasis added.)

The waters to which the Mexican delivery obligation expressly attaches per this provision – *i.e.*, the waters in which Mexico's right to use vests and from which that right is to be

⁶ For useful scholarship identifying the tributary issue and the sub-basins' positions, see Carlson, *Breeding Ground*, *supra* note 3, at 15-16; John U. Carlson & Alan E. Boles, *Contrary Views of the Law of the Colorado River: An Examination of Rivalries Between the Upper and Lower Basins*, 32 Rocky Mtn. Min. L. Inst. 21-1, 21.05[2][a] (1986); David H. Getches, *Competing Demands for the Colorado River*, 56 U. Colo. L. Rev. 413, 424-25 (1985); Norris Hundley, Jr., *Water and the West: The Colorado River Compact and the Politics of Water in the American West* 196-204, 258, 292 (2d ed 2009); Charles J. Meyers, *The Colorado River*, 19 Stan. L. Rev. 1, 15 (1966).

“supplied” – are the waters of the “Colorado River System.” The inclusion of the Lower Basin tributaries within the definition of this term in Article II(a) is as plain as the text of Article III(c):

“The term ‘Colorado River System’ means that portion of the Colorado River *and its tributaries* within the United States of America.” (Emphasis added.)

In addition to its express usage at the beginning of Article III(c), this definition also is incorporated into the provision via the phrase “the quantities specified in paragraphs (a) and (b),” which refers to Articles III(a) and (b). The quantities “specified” in these provisions expressly refer to “Colorado River System” water – specifically, 16.0 maf per year of it:

“(a) There is hereby apportioned from the *Colorado River System* in perpetuity to the Upper Basin and to the Lower Basin, respectively, the exclusive beneficial consumptive use of 7,500,000 acre-feet of water per annum

(b) In addition to the apportionment in paragraph (a), the Lower Basin is hereby given the right to increase its beneficial consumptive use of *such waters* by one million acre-feet per annum.” (Emphasis added.)

In accordance with this phrase, Article III(c) mandates that the “Colorado River System” water to which Mexico’s right to use attaches (as noted above) initially must be supplied from any “surplus” that might exist over and above the 16.0 maf of “Colorado River System” water apportioned in Articles III(a) and (b). In short, any such “surplus” consists of “Colorado River System” water in the same manner as do the quantities specified in Articles III(a) and (b).

A final bit of textual indicia comes from the use of the terms “Upper Basin” and “Lower Basin” in Article III(c) – both of which also incorporate the “Colorado River System” definition. As defined in Articles II(f) and (g), these terms demarcate the geographic areas that (pursuant to Article III(c)) must equally bear the obligation of delivering “Colorado River System” water to Mexico if an inadequate surplus of such water exists (*i.e.*, in “deficiency” conditions):

“(f) The term ‘Upper Basin’ means those parts of the States of Arizona, Colorado, Nevada, New Mexico, and Utah within and from which waters naturally drain into the *Colorado River System* above Lee Ferry, and also all parts of said states located

without the drainage area of the *Colorado River System* which are now or shall hereafter be beneficially served by waters diverted from the *System* above Lee Ferry.”

“(g) The term ‘Lower Basin’ means those parts of the States of Arizona, California, Nevada, New Mexico, and Utah within and from which waters naturally drain into the *Colorado River System* below Lee Ferry, and also all parts of said States located without the drainage area of the *Colorado River System* which are now or shall hereafter be beneficially served by waters diverted from the *System* below Lee Ferry.” (Emphasis added.)

These definitions expressly encompass the tributaries of both the Upper and Lower Basins.

Taken together, the clear inclusion of tributaries within the definition of “Colorado River System” in Article II(a), and the pervasive use of that term throughout Article III(c) and the provisions incorporated therein (Articles II(f), (g); Articles III(a), (b)), constitutes compelling (arguably determinative) evidence that the Compact Commissioners (Commissioners) intended the Lower Basin tributaries to be encompassed within the apportionment scheme relevant to that sub-basin’s Article III(c) delivery obligations in both “surplus” and “deficiency” conditions.

Contextual Provisions

A host of provisions surrounding Article III(c) provide further support for inclusion of the Lower Basin tributaries vis-à-vis that sub-basin’s obligation to deliver Mexican treaty water. At least two strands of these provisions are relevant: (1) provisions evidencing the intent of the Commissioners to establish an inclusive, basinwide apportionment scheme, and (2) provisions demonstrating the ability of the Commissioners to distinguish between the terms “Colorado River” and “Colorado River System” in their drafting of the Compact.

Inclusive, Basinwide Apportionment Scheme

First and foremost among this strand of contextual provisions is Article I:

“The major purposes of this compact are to provide for the *equitable division and apportionment of the use of the waters of the Colorado River System*; to establish the relative importance of different beneficial uses of water; to promote interstate comity; to remove causes of present and future controversies; and to secure the expeditious agricultural and industrial development of the *Colorado River Basin, the storage of its waters*, and the protection of life and property from floods. To these ends the Colorado River Basin is divided into two Basins, and an apportionment of the use of part of the water of the *Colorado River System* is made to each of them with the provision that further equitable apportionments may be made.”

This statement of purposes in Article I serves as a guide to the intent of the Commissioners with regard to the whole document. A statement made by Delph Carpenter, the Colorado Commissioner, during the Compact Negotiations attests to this point:

“MR. CALDWELL: With those same arguments may we not cut out the article on purposes.

“MR. HOOVER: I feel the article on ‘Purposes’ has a clear p[s]ychological value.

“MR. CARPENTER: They have a psychological value, and those articles, as drawn, may be later revised and improved, and if there is any question as to what the intent of the drafters of the compact was, they will turn to the article on ‘purposes’ to try to find a guide to that intent, -- I think there is great danger in leaving that out. It is not alone a preamble, -- it is, if I may so term it, a declaration of principles. It is a guide to the intent of the framers, and as such it must be very, very carefully drafted in the final compact if it is to remain.”⁷

With this perspective in mind, two aspects of Article I are notable for the light they shed on the intent of the Commissioners with regard to the Lower Basin tributaries in Article III(c).

First, Article I reflects the intent of the Commissioners to craft the apportionment scheme to encompass the entire “Colorado River System” – *i.e.*, both tributaries and mainstem.⁸ The first and last clauses of the statement of purposes are indicative of this intent – both of which incorporate the definition of “Colorado River System” in Article II(a). The first stated purpose

⁷ Minutes of the Twenty-Second Meeting of the Colorado River Commission, November 22, 1922, at 167. *Please note:* All citations to the Minutes of the Compact Negotiations refer to the pagination of the electronic copy of the Minutes available at <http://www.riversimulator.org/Resources/LawOfTheRiver/MinutesColoradoRiverCompact.pdf>.

⁸ See Getches, *supra* note 6, at 425 (“Article I of the Compact says that the purpose of the Compact was ‘to provide for the equitable division and apportionment of the use of the Colorado River System,’ indicating that the Gila’s waters should be included in the apportionment.”)

of the Compact is “to provide for the equitable division and apportionment of the use of the waters of the Colorado River System[,]” and “an apportionment of the use of part of the water of the Colorado River System” is made to the Upper and Lower Basins to this end.⁹ Also relevant is the fifth stated purpose: “to secure the expeditious agricultural and industrial development of the Colorado River Basin [and] the storage of its waters.” Article II(b) defines “Colorado River Basin” as “all of the drainage area of the Colorado River System and all other territory within the United States of America to which the waters of the Colorado River System shall be beneficially applied.” An inclusive, basinwide apportionment scheme is envisioned in all of these instances.

Second, given the inclusive, basinwide orientation of the apportionment scheme as reflected in Article I (and elsewhere), it is fair to expect any deviation from this orientation (*e.g.*, a provision excluding the Lower Basin tributaries) to be set forth in clear, unequivocal language. Nothing of the sort exists in Article III(c). Rather, as discussed above, the text of that provision offers arguably controlling evidence of an intent to encompass the Lower Basin tributaries within the apportionment scheme relevant to the sub-basins’ delivery obligations to Mexico.

In addition to Article I, Article III contains several contextual provisions that offer further support for the two points just noted – *i.e.*, (1) the Compact’s apportionment scheme is inclusive and basinwide in its orientation and (2) any deviation from this orientation like exclusion of the Lower Basin tributaries presumably would appear explicitly. Articles III(a) and (b) are both relevant in this regard. As identified in the text above, the sub-basin entitlements set forth in these provisions attach to the waters of the “Colorado River System” as defined in Article II(a). Article III(a) expressly includes this definition, and Article III(b) incorporates it by reference to

⁹ The inclusion of “Colorado River System” in the definitions of “Upper Basin” and “Lower Basin” (excerpted above) is worth reiterating here as further evidence of the inclusive, basinwide nature of the apportionment scheme. On a separate note, the use of the term “part” in the last clause of Article I reflects the Commissioners’ perspective that more than the 16.0 maf of water apportioned in Articles III(a), (b), and (c) exists in the Colorado River System and that this unapportioned water would be subject to future equitable apportionments per Articles III(f) and (g).

“such waters.” Articles III(f) and (g) are similar in nature. Stemming from the Commissioners’ perceptions that more than the 16.0 maf of water apportioned in Articles III(a), (b), and (c) generally exists in the Colorado River System, Articles III(f) and (g) contemplate the future equitable apportionment of the initially unapportioned uses of this water.¹⁰

“(f) Further equitable apportionment of the beneficial uses of the waters of the *Colorado River System* unapportioned by paragraphs (a), (b), and (c) may be made in the manner provided in paragraph (g) at any time after October first, 1963, if and when either Basin shall have reached its total beneficial consumptive use as set out in paragraphs (a) and (b).

“(g) In the event of a desire for a further apportionment as provided in paragraph (f) any two signatory States, acting through their Governors, may give joint notice of such desire to the Governors of the other signatory States and to The President of the United States of America, and it shall be the duty of the Governors of the signatory States and of The President of the United States of America forthwith to appoint Representatives, whose duty it shall be to divide and apportion equitably between the Upper Basin and Lower Basin the beneficial use of the unapportioned water of the *Colorado River System* as mentioned in paragraph (f)” (Emphasis added.)

In sum, all four of these provisions within Article III unambiguously identify the “Colorado River System” as the subject of the Compact’s apportionment scheme, both in its current (Articles III(a) and (b)) and potentially future (Articles III(f) and (g)) forms. Viewed against this backdrop, no aspect of Article III(c) suggests an intention to exclude the Lower Basin tributaries from the apportionment scheme relevant to the Mexican delivery obligation.

A final bit of support in this vein comes from Article VIII, which provides, in part:

“Present perfected rights to the beneficial use of waters of the *Colorado River System* are unimpaired by this compact. . . . All other rights to beneficial use of waters of the *Colorado River System* shall be satisfied solely from the water apportioned to that Basin in which they are situate.” (Emphasis added.)

Like above, Article VIII evidences the intent of the Commissioners to establish an inclusive,

¹⁰ Article VI also evidences the Commissioners’ perceptions that more than the 16.0 maf apportioned in Articles III(a), (b), and (c) exists in the Colorado River System. Among other things, Article VI establishes dispute resolution procedures for potential claims or controversies between the basin states “with respect to the waters of the Colorado River System not covered by the terms of this compact.”

basinwide apportionment scheme, which is reflected in the provision’s designation of the “Colorado River System” as the source of water from which present perfected rights and other water rights will be satisfied within each sub-basin. The text of Article III(c) bolsters this interpretation rather than containing a tributary exclusion that runs contrary to it.¹¹

“Colorado River” versus “Colorado River System”

A related strand of contextual provisions consists of those demonstrating the ability of the Commissioners to distinguish between the “Colorado River” (*i.e.*, mainstem) and the “Colorado River System” (*i.e.*, mainstem and tributaries) in their drafting of the Compact.¹² Five provisions illustrate this point: (1) Article II(a) (differentiating “Colorado River” and its “tributaries” in definition of “Colorado River System”); (2) Article II(e) (referencing “mainstream of the Colorado River” in definition of “Lee Ferry”); (3) Article IV(b) (referencing “Colorado River” in relation to relative priorities of navigation, domestic, agricultural, and power uses); (4) Article V(b) (mandating cooperation for “ascertainment and publication of the annual flow of the Colorado River at Lee Ferry”); and (5) Article VIII (addressing storage capacity “on the main Colorado River” relevant to satisfaction of present perfected rights in Lower Basin). Notably, some of these provisions appear adjacent to provisions where “Colorado River System” is used – *e.g.*, Article IV(a) (“Colorado River”) and Article IV(b) (“Colorado River System”).

The implication of these provisions is straightforward: The Commissioners’ purposeful use of “Colorado River” (and the like) throughout the Compact demonstrates that they were

¹¹ Article IV(b) also reveals the inclusive, basinwide orientation of the Compact’s apportionment scheme, establishing a hierarchy applicable to the “water of the Colorado River System” whereby hydropower generation is subservient to agricultural and domestic uses. Moreover, as discussed below, the use of “Colorado River System” in Article IV(b) is significant based upon its contrast with the use of “Colorado River” in Article IV(a).

¹² The Report of Special Master Simon H. Rifkind in the *Arizona v. California* (1963) litigation noted the ability of the Commissioners to use the terms “Colorado River System” and “Colorado River” purposefully to reflect their intended meaning. See page 143 of the Report, which is published at 364 U.S. 940 (1961).

capable of using that term to designate the mainstem as the source of water from which the Mexican delivery obligation would be supplied in Article III(c) (*i.e.*, as opposed to the “Colorado River System”) *if* they indeed had intended to do so. Although this point is significant standing alone, it is worth considering in relation to the material in the previous subsection. The provisions discussed there (including those in Article III) reflect an intention for the apportionment scheme to be inclusive and basinwide in scope. It is fair to expect any exclusion for the Lower Basin tributaries in Article III(c) to be unambiguous given this backdrop. Not only does Article III(c) lack such an exclusion, however, it includes the term “Colorado River System” in a context demonstrating the ability of the Commissioners to distinguish this term from “Colorado River” (and the like) to suit their purposes. Coupled with the text of Article III(c), these contextual provisions appear to significantly undermine the Lower Basin position.

Negotiation Minutes

Yet another source to consult in determining the Compact Commissioners’ intent with regard to the Lower Basin tributaries under Article III(c) is the Negotiation Minutes.¹³ The (voluminous) material below tracks relevant portions of the Negotiations from the First to the Twenty-Seventh Meetings. Much of it reads like a drafting history accounting for the emergence of predecessors to Article III(c) and the evolution of that provision (and its incorporated definitions) after its introduction at the Twenty-Second Meeting in a form mirroring the final version. Overall, the Negotiation Minutes bolster the conclusion supported by the text and context sections: The Lower Basin tributaries fall within the Compact’s apportionment scheme relevant to that sub-basin’s delivery obligations to Mexico under Article III(c).

¹³ For useful discussions of relevant excerpts from the Negotiation Minutes and related documents, see Carlson & Boles, *supra* note 6, at 21.05[2][a]; Hundley, *supra* note 6, at 196-204.

Although far from dispositive of the tributaries issue, the opening statement of Herbert Hoover, the Federal Commissioner, at the First Meeting provides an engaging entry point into the Negotiations relevant to the intended meaning of Article III(c). Foreshadowing the inclusive, basinwide orientation of the apportionment scheme eventually adopted in the final version of the Compact, Hoover described the purpose of the Commission as follows:

“This Commission has been established primarily to consider and if possible to agree upon a compact between the seven states of the Colorado Basin, providing for an equitable division of the water supply of the *Colorado River and its tributaries* amongst the seven states.”¹⁴

The tributaries thus fell squarely within the Commission’s charge in Hoover’s (early) estimation. And he was not alone in this view: W.S. Norviel, the Arizona Commissioner, offered a proposal at the First Meeting outlining (among other things) the purpose, jurisdiction, and “principles and policies” of the Commission. The provisions addressing these (and related) matters were replete with references to the “Colorado River *and its tributaries*”:

“WHEREAS, the purpose of the organization of the Colorado River Commission is to determine the relative rights of the said states and of the United States, and the citizens thereof, in and to *Colorado River and its tributaries* and to the use and the benefits derived from the utilization of the waters thereof; to establish and fix a policy and regulations to govern the further development of the river.

“THEREFORE, this Commission assumes jurisdiction over said *Colorado River and its tributaries*, and the waters thereof for the above purposes, and shall retain full jurisdiction and authority over the same during the life of this Commission.

* * * * *

“Therefore, being fully advised, the Commission makes, agrees to and promulgates the following principles and policies with respect to the use of the waters of the *Colorado River and its tributaries*:

* * * * *

“4. That reciprocal arrangements or agreements shall be made and entered into between any of the said states, or any of the citizens thereof, where the diversion of

¹⁴ Minutes of the First Meeting of the Colorado River Commission, January 26, 1922, at 2 (emphasis added).

the water from *Colorado River or any of its tributaries* may be more advantageously made in one state for use in another state, and no request for such a permit shall be denied without just cause. Failing to reach an agreement, or the denial of the application in such case, the matter shall be submitted to this Commission on an agreed statement of facts for adjustment, as to an arbitrator, and the decision of this Commission shall be final in such matters and respected by the officers in said states.

* * * * *

“7. No water shall be diverted from *Colorado River or any of its tributaries* for use outside the Colorado River Basin, except by unanimous consent of the Commission.

“8. As soon as practicable each member of this Commission shall collect information showing all of the uses of the water from *Colorado River and its tributaries . . .*”¹⁵

Four days after submitting this initial proposal, at the Seventh Meeting of the Commission, Norviel presented a new proposal entailing different treatment of the Lower Basin tributaries. Specifically, the proposal imposed limitations on the amounts of acreage eligible for development from Colorado River water in the basin states, but exempted the Gila River from these limitations, stating: “[E]ach state shall be free to develop by reclamation – new lands up to the following acreages from Colorado River waters, excepting the Gila River . . .”¹⁶

Mirroring his first proposal (and contrasting the preceding one), a draft compact submitted by Norviel at the Eleventh Meeting entitled, “Compact Providing for the Equitable Distribution of the Waters of Colorado River and Its Tributaries,”¹⁷ omitted any exception for the Gila River or other Lower Basin tributaries. The draft compact noted the appointment of the Commission “to negotiate and enter into a Compact respecting the future utilization and

¹⁵ Minutes of the First Meeting of the Colorado River Commission, January 26, 1922, at 49-54 (emphasis added).

¹⁶ Minutes of the Seventh Meeting of the Colorado River Commission, January 30, 1922, at 127, 134.

¹⁷ Minutes of the Eleventh Meeting of the Colorado River Commission, November 11, 1922, at 12.

disposition of the waters of the *Colorado River and its tributaries*”¹⁸ It likewise encompassed the tributaries (basinwide) within its statement of general principles and its corresponding definition of “Colorado River” in Article I:

“The States of Arizona, California, Colorado, New Mexico, Nevada, Utah, and Wyoming mutually agree among themselves and with each other and with the United States of America that with respect to the use, distribution and utilization of the waters of the *Colorado River and its tributaries*, where such use and distribution within any state may affect the use and distribution made within another state, the following general principles shall be recognized and enforced as controlling in all interstate controversies or disputes relating thereto

* * * * *

“[First] For the purposes of this compact and when used herein Colorado River shall be understood to include main stream *and all tributaries* of that river[.]”¹⁹

Having set forth this definition, Norviel’s draft compact integrated it into a host of provisions addressing the appropriation of water from the “Colorado River” – *e.g.*, provisions governing agricultural use; beneficial use; and use limitations (including use preferences).²⁰

The draft compact submitted by Norviel was only one of four such documents presented at the Eleventh Meeting.²¹ The most notable of these additional submissions came from Delph Carpenter. Carpenter’s draft compact was entitled, “Compact or Agreement for the Equitable Apportionment of the Water Supply of the Colorado River and of the Streams Tributary

¹⁸ *Id.* (emphasis added).

¹⁹ *Id.* at 13 (emphasis added). The definition of “Colorado River Basin” provided in this Article also is notable: “For the purpose of this compact, the Colorado River Basin is to be regarded as embracing the entire watershed of the Colorado River within the United States and also the Imperial and Coachella Valleys” *Id.*

²⁰ *Id.* at 13-14. The draft compact (like Norviel’s proposal at the First Meeting) also called for the establishment of an ongoing Colorado River Commission. It integrated the “Colorado River” definition into its description of the Commission’s powers: “Said Commission shall be empowered and directed to make a study of all subjects that relate to the conservation and utilization of the waters of the Colorado River for beneficial uses” *Id.* at 16.

²¹ The two additional draft compacts were from R.E. Caldwell, the Utah Commissioner, and Mr. George L. Hoodenpyl, the City Attorney for Long Beach, California. See *id.* at 34-36 (Caldwell) and 64 (Hoodenpyl).

There to.”²² Closely resembling the final version of the Compact, this draft addressed the tributaries in multiple provisions analogous to those surveyed above in the text and context sections. These provisions included (1) the statement of purposes (“the equitable distribution and apportionment of the waters of the *Colorado River and its tributaries*”);²³ (2) Article I (demarcating “[t]he territory included within the drainage area of the *Colorado River and its tributaries* and all lands now and hereafter watered from said stream” into Upper and Lower Divisions “for the purposes of the equitable apportionment and distribution of the uses and benefits of the waters of said river”);²⁴ (3) Article II (establishing apportionment scheme for “[t]he waters of the Colorado River and of all the streams contributing thereto”);²⁵ and (4) Articles VII and VIII (prescribing use preferences for waters of “stream and its tributaries”).²⁶

In addition to these provisions, Articles III and VI of Carpenter’s draft compact expressly addressed the Lower Basin tributaries vis-à-vis that sub-basin’s delivery obligations to Mexico:

“[Article III:] The High Contracting Parties agree that the duty and burden of supplying any waters from the flow of the Colorado River within the United States of America to the Republic of Mexico . . . shall be equally apportioned between and equally borne by the Upper Division and the Lower Division of the Colorado River within the United States of America; that the annual delivery at Lee’s Ferry, by the States of the Upper Division, of a quantity of water equivalent to one-half the annual amount required to satisfy any such international obligations shall be a complete fulfillment of the provisions of this Article by said States; and that the States of the Lower Division shall contribute annually a like amount of water from those waters of the river annually to pass Lee’s Ferry for the Lower Division, as provided in Paragraph two (2) of Article II of this compact, *and from the flow of tributaries entering the river below Lee’s Ferry*, and further, shall cause the water contributed by both divisions to be delivered to the Republic of Mexico

²² *Id.* at 21 (emphasis added).

²³ *Id.* (emphasis added)

²⁴ *Id.* at 22 (emphasis added). The tributaries also were expressly encompassed within the “Upper Division” and the “Lower Division” as those terms were defined in Article I of the draft. *Id.*

²⁵ *Id.* at 23.

²⁶ *Id.* at 24-25.

in conformity with any such treaty obligations.

“[Article VI:] The High Contracting Parties agree that, subject at all times to the rights to the diversion, use, and consumption of the waters of the *Colorado River and its tributaries* for the benefit of the Upper Division but within the limitations defined by this compact, and subject to *the fulfillment of the obligations expressed in Article III . . .* each of the States whose territory is in part included within the Lower Division shall have, possess, and enjoy under the constitution and laws of each said State, and [within] its territory, the free and unrestricted uses and benefits of the *waters of those tributaries which enter the Colorado River below Lee’s Ferry* and of all waters of said river which may pass said point from the Upper Division *in conformity with . . . Article III of this compact.*”²⁷

The text of these Articles plainly encompassed the tributaries of the Lower Basin (“Lower Division”) relevant to the delivery obligations of that entity to Mexico.

Between the submission of Carpenter’s draft proposal at the Eleventh Meeting and the oft-cited exchange over the Lower Basin tributaries at the Nineteenth Meeting (see below), the Commissioners discussed this subject in two relevant contexts. First, at the Twelfth and Sixteenth Meetings, the Commissioners engaged in prolonged discussions of the relationship between evaporation losses and tributary inflows in the Lower Basin, as this relationship bears on the fairness of the Upper Basin’s annual delivery obligations to the Lower Basin and to Mexico.²⁸ Second, at the Seventeenth Meeting, the Commissioners considered the Upper Basin’s annual delivery obligations at greater length, with the representatives of the Upper Basin states emphasizing how the Lower Basin states would be entitled to use the water afforded by these annual deliveries plus the water from the Lower Basin tributaries.²⁹

It was at the Nineteenth Meeting, more so than at any other point in the Negotiations, that the status of the Lower Basin tributaries within the Compact’s apportionment scheme (relevant

²⁷ *Id.* at 24, 26 (emphasis added).

²⁸ Minutes of the Twelfth Meeting of the Colorado River Commission, November 12, 1922, at 79, 81, 85-88, 91-92; Minutes of the Sixteenth Meeting of the Colorado River Commission, November 14, 1922, at 74-84.

²⁹ Minutes of the Seventeenth Meeting of the Colorado River Commission, November 15, 1922, at 93-100.

to the Mexican delivery obligation and otherwise) arose as an issue. Hoover began the meeting by soliciting discussion about a draft of Article III(a) he had prepared addressing (among other things) the entitlements of the Upper and Lower Basins. The Article provided, in part:

“The water of the Colorado River System may be appropriated throughout The Colorado River Basin without restriction until appropriations in either the Upper Basin or the Lower Basin shall reach 7,500,000 acre feet per annum including present initiated rights. . . .”³⁰

The status of the Lower Basin tributaries in relation to these entitlements boiled over as an issue when Hoover asked Norviel for his view on the Article. A tense exchange followed involving Norviel, Carpenter, and Judge Stephen B. Davis, the New Mexico Commissioner:

“CHAIRMAN HOOVER: What do you think, Mr. Norviel?

“MR. NORVIEL: Well, the thing don’t mean much to me. I don’t understand it at all.

“CHAIRMAN HOOVER: How would you express it, Mr. Norviel, to comprise your idea?

“MR. NORVIEL: I would want to know what we are driving at first. I want to know where the water is to be divided, what the 7,500,000 acre feet per annum mean, and the reason for the 7,500,000 acre feet and if the 7,500,000 acre feet is to include the streams below Lee Ferry, and things of that kind. Yesterday we arrived at the point of excluding those. Mr. Carpenter made that statement that they were ours utterly to use as we saw fit in addition. –

“MR. CARPENTER: (Interrupting) No I didn’t, not for a minute.

“MR. NORVIEL: I will get the record.

“MR. DAVIS: Irrespective of what Mr. Carpenter said, I think it is incorrect to say we have arrived at any point, -- if you mean by that All the northern states, because we have arrived at nothing.

“MR. NORVIEL: Then we will have to start all over.”³¹

To navigate this impasse, Hoover proceeded to read through the terms of the draft of Article III, inquiring about, and receiving confirmation of, Norviel’s understanding of those

³⁰ Minutes of the Nineteenth Meeting of the Colorado River Commission, November 19, 1922, at 2.

³¹ *Id.* at 3-4.

terms. During this exchange, Norviel acknowledged the inclusion of the Lower Basin tributaries within the apportionment scheme set forth in the Article – specifically, in relation to the terms “water of the Colorado River System” and “Colorado River Basin” as used therein.

“CHAIRMAN HOOVER: It doesn’t seem to me we make progress on this work, which is very important work, if we have to go back to where we all started from, because we have all revolved in so many circles and out again.

“MR. NORVIEL: Let it be stated then in here just exactly what it means. I can’t understand what it means.

“CHAIRMAN HOOVER: Let’s go through it and see if we can understand it. ‘The water of the Colorado River System,’ which includes the whole drainage basin of the Colorado River in the United States under our definition, and includes the Gila and all the other lower rivers, ‘may be appropriated throughout the Colorado River Basin,’ which includes the whole area, -- ‘without restriction until appropriations in either the Upper Basin or the Lower Basin shall reach 7,500,000 acre feet per annum including the present initiated rights.’ Is that clear Mr. Norviel?

“MR. NORVIEL: If that means all of the drainage in the Basin, old and new, -- if that is what it means then I understand it up to that point.

“CHAIRMAN HOOVER: Well, it means everything in the Basin. We have got a definition here of the exact meaning of those Basins, it includes everything.

“MR. NORVIEL: All right.”³²

At the Twentieth Meeting, which was held later the same day in which the exchanges above took place, the Commissioners adopted a draft of the inclusive, basinwide definition of “Colorado River System” that eventually appeared in the final version of the Compact: “that portion of the Colorado River and all of its tributaries within the United States.”³³ Also at this meeting, the Commissioners adopted definitions of “Upper Basin” and “Lower Basin” – again, both in draft form – that incorporated the definition of “Colorado River System” in defining the

³² *Id.* at 4-5. Norviel later explained the reason for his misunderstanding about the exclusion of the Lower Basin tributaries from the draft apportionment scheme. See *id.* at 9-10.

³³ Minutes of the Twentieth Meeting of the Colorado River Commission, November 19, 1922, at 85.

scope of these areas and that eventually appeared in the final version of the Compact.³⁴ The draft of Article III, however, was held in suspension as of the end of this meeting.³⁵

The Commissioners subsequently revisited Article III at the Twenty-First Meeting – in what proved to be a definitive way – initially discussing a revised apportionment scheme proposed by Norviel that accounted for the Lower Basin tributaries, and later considering four methods of apportionment prepared by James G. Scrugham, the Nevada Commissioner, none of which excluded the tributaries. After briefly surveying Scrugham’s four approaches, the Commissioners agreed to refer them (*i.e.*, Article III) to a drafting committee for consideration.³⁶

A draft of Article III closely resembling the final version contained in the Compact emerged out of the drafting committee. It was introduced at the Twenty-Second Meeting. The Commissioners unanimously adopted the following version of Article III(c):

“If, as a matter of international comity, the United States of America shall hereafter recognize in the United States of Mexico any right to the use of the waters of the *Colorado River System*, *such waters* shall first be supplied from the surplus water after the above amounts have been satisfied; and if such surplus shall prove insufficient for this purpose, then the deficiency shall be equally apportioned between and equally borne by the *Upper Basin* and the *Lower Basin* and when necessary the States of the upper division shall deliver at Lee Ferry one-half of the deficiency so recognized in addition to that provided in paragraph (d).”³⁷

The italicized text highlights two of the three operative sections of the final version of Article III(c) that are relevant to the tributaries issue. As noted above, the Commissioners previously had adopted a draft definition of “Colorado River System” at the Twentieth Meeting that included the Lower Basin tributaries (“that portion of the Colorado River and all of its tributaries within the United States”) as well as draft definitions of “Upper Basin” and “Lower Basin” that

³⁴ *Id.* at 85-87.

³⁵ *Id.* at 90.

³⁶ Minutes of the Twenty-First Meeting of the Colorado River Commission, November 20, 1922, at 127-33.

³⁷ Minutes of the Twenty-Second Meeting of the Colorado River Commission, November 22, 1922, at 138-39, 149.

incorporated “Colorado River System” in their demarcation of those geographic areas.³⁸

Little changed with the draft of Article III(c) introduced at the Twenty-Second Meeting during the remainder of the Negotiations. By the time they adjourned the Twenty-Fourth Meeting, the Commissioners had adopted the definitions of “Colorado River System,” “Upper Basin,” and “Lower Basin” incorporated into the final version of Article III(c) (and set forth in Article II).³⁹ These terms have been identified and discussed above, but it is worth repeating that every one of them encompassed (*i.e.*, encompasses) the Colorado River mainstem *and* its tributaries. In turn, the Commissioners adopted the final version of Article III(c) at the Twenty-Fifth Meeting, having modified the draft version introduced at the Twenty-Second Meeting in two ways (neither of which is relevant here).⁴⁰ The Commissioners adopted Compact in its entirety shortly after at the Twenty-Seventh Meeting.⁴¹

Post-Negotiation Events

Coupled with the relevant excerpts of the Negotiation Minutes, the textual and contextual material discussed above is the most probative evidence of the intended status of the Lower Basin tributaries under Article III(c) *at the time of the Compact’s formation* (*i.e.*, from an originalist viewpoint). That said, five post-Negotiation events are notable for the insight they provide into the oscillating position of the Lower Basin regarding the tributaries issue and the potential holding of the Supreme Court if it were faced with interpreting Article III(c) in this respect. Brief accounts of these five events are presented in chronological order below.

³⁸ Minutes of the Twentieth Meeting of the Colorado River Commission, November 19, 1922, at 85-87.

³⁹ Minutes of the Twenty-Fourth Meeting of the Colorado River Commission, November 23, 1922, at 238.

⁴⁰ Minutes of the Twenty-Fifth Meeting of the Colorado River Commission, November 23, 1922, at 255-56.

⁴¹ Minutes of the Twenty-Seventh Meeting of the Colorado River Commission, November 24, 1922, at 305.

An initial event of significance consists of statements made and actions taken by federal legislators – including Arizona Senator Carl Hayden – concerning the tributaries issue while the Boulder Canyon Project Act (BCPA) was pending in Congress. These statements and actions evidence an understanding on the parts of these legislators that the Compact (whose approval hinged on passage of the BCPA) contemplated inclusion of the Lower Basin tributaries in the apportionment scheme set forth in Article III. Carlson & Boles offer a succinct account:

“Congress' intention in approving the Compact through the Boulder Canyon Project Act was clearly to subject the Lower Basin tributaries to the demands of Article III. Hoover ventured this interpretation of the Compact when responding to Congressman Hayden's 26 written questions, which answers Hayden conspicuously introduced into the *Congressional Record*. During floor debate on the Project Act, Senator Johnson remarked ‘in this compact the Colorado River basin embraces not alone the mainstream, but embraces the tributaries of the mainstream as well.’ Senator Phipps indicated the same understanding. Senator Hayden twice offered amendments to the pending legislation to exempt the Gila, except such return flow as might reach the mainstream, from any obligation under the Mexican Treaty and to allow Arizona exclusive beneficial use of the Gila within the state. Both were defeated.”⁴²

Occurring contemporaneously with the first event, and equally indicative of the Lower Basin’s viewpoint regarding the tributaries issue shortly after the Negotiations, were statements made and actions taken by Arizona politicians (and the responses of basin state and federal officials thereto) identifying how Arizona’s refusal to ratify the Compact was due to inclusion of the Lower Basin tributaries within the scope of Article III(c). As described by Carlson & Boles:

“Arizona's past conduct with respect to this issue was such as to render its current position not only untenable, but preposterous. In the 1920's and 1930's, its view that the Compact included all tributary waters for the purpose of determining an Article III(c) surplus was open and notorious. Governor Hunt inveighed against it on precisely this ground. At the Denver Governor's Conference, called by the Upper Basin states in 1927 to try to settle the differences between California and Arizona, Arizona accepted the Governors' proposed compromise ‘but attached a condition to the effect that the tributaries of Arizona must be released and relieved from the burden which might hereafter be impressed upon them by virtue of any treaty[.]’ The governors

⁴² Carlson & Boles, *supra* note 6, at 35 (internal citations omitted).

declined the new proposition. The secretary of Arizona's Colorado River Commission divulged to the House Committee on Irrigation and Reclamation in 1928 that: ‘it is the . . . justifiable fear of Arizona, that under the terms of the compact Arizona would be called upon to supply out of her tributaries the burden of the allotment to Mexico.’ Senator Hayden advised the Senate: ‘the primary reason why the Colorado River compact was not approved by the State of Arizona was that the Gila River and its tributaries were included in the Colorado River Basin. The people of Arizona felt—and justly so—that they had appropriated and put to beneficial use all of the waters of that stream, and that by remaining out of the compact under no circumstances could the waters of that stream be burdened with furnishing any water to Old Mexico, while by entering the compact they would assume a liability that does not at the present moment exist.’⁴³

Although focused on Article III(b) rather than Article III(c), the second case brought by Arizona against California and the other basin states after the Compact and BCPA had become effective, *Arizona v. California*, 292 U.S. 341 (1934), constitutes a third post-Negotiation event of significance to the tributaries issue.⁴⁴ In this case, Arizona sought to perpetuate testimony from several of the Commissioners to the effect that they had intended Article III(b)’s allocation of 1.0 maf per year to be for the exclusive benefit of Arizona in exchange for the inclusion of the Lower Basin tributaries within the Compact’s apportionment scheme.⁴⁵ Arizona contended that Article III(b) was ambiguous in this respect and that the proposed testimony would resolve this ambiguity – specifically, as the alleged ambiguity related to the meaning of § 4(a) of the BCPA and Arizona’s share of the Lower Basin’s Compact entitlement assertedly apportioned thereunder.⁴⁶ Denying Arizona’s request, the Court held (among other things)⁴⁷ that the meaning

⁴³ *Id.* at 35-36 (internal citations omitted). See also Getches, *supra* note 6, at 425 (“One of Arizona’s reasons for its steadfast refusal to ratify the Colorado River Compact was uncertainty over its rights to water from the Gila.”); Hundley, *supra* note 6, at 258 (identifying acknowledgement of Arizona legislature during ratification proceedings that Compact’s apportionment scheme encompasses Lower Basin tributaries).

⁴⁴ See Carlson & Boles, *supra* note 6, at 21.05[2][a] (noting significance of case to tributaries issue).

⁴⁵ *Arizona v. California*, 292 U.S. at 348-350. The Negotiation Minutes contain support for Arizona’s position on this issue. See Hundley, *supra* note 6, at 292 (“The minutes . . . reveal that Article III(b) was added in response to Norviel’s protests concerning the lower-basin tributaries, especially the Gila. . .”).

⁴⁶ *Id.* at 352.

⁴⁷ The Court also held that the meaning of Article III(b) was not relevant to the meaning of BCPA § 4(a) because

of Article III(b) was unambiguous, describing (1) Articles III(a) and (b) apportion water “from the Colorado River System, *i.e.*, the Colorado and its tributaries” between the Upper and Lower Basins and (2) Article III(b) clearly expresses an intent to allocate an additional 1.0 maf per year of “such water” among all of the Lower Basin states, not to Arizona alone.⁴⁸

At least two aspects of this decision are notable in relation to the tributaries issue. First, Arizona acknowledged the inclusion of the Lower Basin tributaries within the Compact’s apportionment scheme – albeit in the context of Article III(b) rather than Article III(c), although the operative text of Article III(b) (“such waters” in relation to “Colorado River System” in Article III(a)) mirrors the operative text of Article III(c) (“Colorado River System”). Second, the Supreme Court likewise recognized the inclusive, basinwide nature of the Compact’s apportionment scheme established by the definition of “Colorado River System,” again albeit as that term is used in Articles III(a) and (b) rather than in Article III(c). Ultimately, both aspects of this case disfavor interpreting Article III(c) to exclude the Lower Basin tributaries, and also offer insight into how the Supreme Court might resolve the tributaries issue if it were presented.

To a similar effect is a fourth significant post-Negotiation event: The issuance of the Report prepared by Special Master Simon H. Rifkind in conjunction with the seminal case between Arizona and California – *Arizona v. California*, 373 U.S. 546 (1963).⁴⁹ Alongside other pivotal issues presented in this case was whether the BCPA apportioned the 8.5 maf per year entitlement secured for the Lower Basin in Articles III(a) and (b) of the Compact among Arizona, California, and Nevada – *i.e.*, whether the BCPA established an apportionment scheme

the latter provision did not purport to apportion the Lower Basin’s entitlement set forth in Articles III(a) and (b) of the Compact among the Lower Basin states (*i.e.*, BCPA § 4(a) did *not* establish an apportionment scheme for the Lower Basin). *Id.* at 357-58. This holding stands in sharp contrast with the Court’s subsequent holding in *Arizona v. California*, 373 U.S. 546 (1963) (interpreting BCPA as establishing Lower Basin apportionment scheme).

⁴⁸ *Arizona v. California*, 292 U.S. at 358.

⁴⁹ *Arizona v. California*, 364 U.S. 940 (1961) (Report of Special Master Rifkind).

for the Lower Basin states. The Special Master determined the Compact itself was irrelevant in resolving this issue due to the interbasin (rather than interstate) nature of Article III and related provisions.⁵⁰ Nonetheless, “in view of the urgent arguments of the sovereign parties and against the eventuality that the Court may take a different view of the matter,”⁵¹ the Special Master offered his views regarding the meaning of various Compact provisions in *dicta*, including all of the subsections of Article III. Expressly rejecting Arizona’s argument that the Compact’s apportionment “relates to the mainstream exclusively,” the Special Master determined the text of Article III(c) to be plain in encompassing both the mainstem and tributaries.

“The limits established by the Compact on the acquisition of appropriate rights are applicable to the mainstream of the Colorado River and its tributaries. . . . [T]he plain words of the Compact permit only one interpretation – that Article III (a), (b), (c), (f), and (g) deal with both the mainstream and the tributaries. Article II(a) states: ‘The term ‘Colorado River System’ means that portion of the Colorado River and its tributaries within the United States of America.’ Article III(a) apportions ‘from the Colorado River System . . . the exclusive beneficial consumptive use . . . of water.’ Article III(b) allows the Lower Basin ‘to increase its beneficial consumptive use of *such waters*. . . .’ ‘Such waters’ can only refer to System waters, that is, to mainstream and tributary water as defined in Article II(a). *In Article III(c)*, (f) and (g) *System water is specified by name*. The various arguments of Arizona fail before this unmistakable language of the Compact.”⁵²

Constituting a fifth significant post-Negotiation event, the Supreme Court’s subsequent decision in *Arizona v. California*, 373 U.S. 546 (1963), contains *dicta* resembling that quoted above from the Special Master’s Report.⁵³ Resting its holding regarding the BCPA’s asserted establishment of a Lower Basin apportionment scheme on the Act alone (*i.e.*, not on the

⁵⁰ *Id.* at 139-41.

⁵¹ *Id.* at 141.

⁵² *Id.* at 142-43 (emphasis added). Notably, the Special Master recognized but declined to address competing views of the parties regarding certain aspects of Article III(c) – namely, “(1) what is the meaning of the word ‘surplus’? (2) If surplus is not sufficient to supply Mexico, how should the Upper Basin’s further delivery obligation be measured under the language of Article III(c)?” *Id.* at 145.

⁵³ See Carlson & Boles, *supra* note 6, at 21.05[2][a] (identifying *dicta* relevant to tributaries issue).

Compact),⁵⁴ the Court avoided Arizona’s argument that the apportionment scheme in Article III encompasses only the Colorado River mainstem, providing the following insight into what the then-composed Court *might* have held if the tributaries issue had been presented:

“Arizona argues that the Compact apportions between basins only the waters of the mainstream, not the mainstream and the tributaries. We need not reach that question, however, for we have concluded that whatever waters the Compact apportioned the Project Act itself dealt only with water of the mainstream. . . . *Inclusion of the tributaries in the Compact was natural in view of the upper States’ strong feeling that the Lower Basin tributaries should be made to share the burden of any obligation to deliver water to Mexico that a future treaty might impose.*”⁵⁵

This *dicta* is accompanied by similar statements from the Court:

“Arizona, because of her particularly strong interest in the Gila, intensely resented the Compact's inclusion of the Colorado River tributaries in its allocation scheme and was *bitterly hostile to having Arizona tributaries, again particularly the Gila, forced to contribute to the Mexican burden.* Largely for these reasons, Arizona alone, of all the States in both basins, refused to ratify the Compact.”⁵⁶

“California is in basic disagreement with almost all of the Master's Report. She argues that the Project Act, *like the Colorado River Compact*, deals with the entire Colorado River System, not just the mainstream.”⁵⁷

Having arrived at the end of this section, the “disclaimer” offered at its outset is worth repeating: The most probative evidence of the intent of the Commissioners regarding the status of the Lower Basin tributaries under Article III(c) is the text and context of that provision coupled with the relevant excerpts from the Negotiation Minutes. Nonetheless, the diverse post-Negotiation events surveyed in this section bolster the conclusion strongly supported by those materials: Article III(c) encompasses the Lower Basin tributaries. The post-Negotiation events

⁵⁴ See Getches, *supra* note 6, at 425 (“The status of the Gila under the Compact has never been determined. . . . [Arizona v. California (1963)] dealt only with an allocation among Lower Basin states under the Act, and consequently whether the Gila is apportioned under the Colorado River Compact remains an open question.”)

⁵⁵ *Arizona v. California*, 373 U.S. 546, 568-69 (1963) (emphasis added).

⁵⁶ *Id.* at 558.

⁵⁷ *Id.* at 563 (emphasis added). See also *id.* at 557-58 (noting inclusive, basinwide definition of “Colorado River System” in Article II(a) and its incorporation in Articles III(a), (b), and (c)).

likewise suggest the Supreme Court would so hold if asked.

Conclusion

To reiterate, the material covered above favors the view that the Lower Basin tributaries fall within the scope of the Compact's apportionment scheme relevant to that sub-basin's delivery obligations to Mexico under Article III(c). It is possible (though perhaps unlikely) that the Supreme Court would consider the text of Article III(c) alone sufficiently plain and compelling to warrant such a holding. If not, the contextual and historical materials offer a wide range of additional support for this conclusion.

“Surplus” Issue

At the heart of the “surplus” issue is the meaning of that term within Article III(c):

“If, as a matter of international comity, the United States of America shall hereafter recognize in the United States of Mexico any right to the use of any waters of the Colorado River System, such waters shall be supplied first from *the waters which are surplus over and above the aggregate of the quantities specified in paragraphs (a) and (b)*; and if *such surplus* shall prove insufficient for this purpose, then, the burden of such deficiency shall be equally borne by the Upper Basin and the Lower Basin, and whenever necessary the States of the Upper Division shall deliver at Lee Ferry water to supply one-half of the deficiency recognized in addition to that provided in paragraph (d).” (Emphasis added.)

The Upper and Lower Basins both recognize surplus water as the first source of supply for deliveries of water to Mexico under this provision – specifically, in relation to the 1.5 maf annual entitlement established for Mexico in the 1944 Treaty.⁵⁸ The point of contention concerns what water constitutes “surplus” within the meaning of Article III(c).

The Upper Basin contends that “surplus” water consists of water over and above the 7.5

⁵⁸ The treaty provisions fleshing out the obligations of the United States to deliver Colorado River water to Mexico include Art. 10 (establishing Mexico's entitlement to 1.5 maf annually); Art. 11 (designating points of delivery for Mexico's entitlement); and Art. 15 (establishing delivery schedule for Mexico's entitlement).

maf and 8.5 maf annual entitlements apportioned to the Upper and Lower Basins, respectively, in Articles III(a) and (b) of the Compact.⁵⁹ According to the Upper Basin, if water use in the Lower Basin exceeds 8.5 maf in a given year – accounting for use on the mainstem *and* its tributaries – then the water used in excess of this annual entitlement constitutes “surplus.” The Upper Basin asserts that its delivery obligations to Mexico are relieved to the extent that such surplus exists – *e.g.*, if water use in the Lower Basin is 10.0 maf or greater in a given year, then the existence of the 1.5 maf of surplus water relieves the Upper Basin of any obligation to contribute water toward deliveries of Mexico’s (1.5 maf) treaty entitlement.

The Lower Basin disputes the notion that “surplus” water refers to water over and above the *individual* sub-basin entitlements allocated in Articles III(a) and (b).⁶⁰ According to the Lower Basin, the *aggregate* quantity of water set forth in those entitlements, 16.0 maf, marks the baseline for determining whether “surplus” exists under Article III(c). If the supply of water in

⁵⁹ For scholarship identifying the Upper Basin’s position, see Lawrence J. MacDonnell, *The Disappearing Colorado River* 9 W. Econ. F. 1, 2-3 (2010); W. Patrick Schiffer et al., *From a Colorado River Compact Challenge to the Next Era of Cooperation Among the Seven Basin States*, 49 Ariz. L. Rev. 217, 220-21 (2007); James S. Lochhead, *An Upper Basin Perspective on California’s Claims to Water from the Colorado River, Part I: The Law of the River*, 4 U. Denver Water L. Rev. 290, 320 (2001); John U. Carlson, *The Colorado River Compact: A Breeding Ground for International, National, and Interstate Controversies* 19-20, Natural Resources Law Center, University of Colorado School of Law, June 5-7, 1989; John U. Carlson & Alan E. Boles, *Contrary Views of the Law of the Colorado River: An Examination of Rivalries Between the Upper and Lower Basins*, 32 Rocky Mtn. Min. L. Inst. 21-1, 21.05[2][a] (1986); Edward W. Clyde, *Institutional Response to Prolonged Drought*, in *New Courses for the Colorado River* 116 (1986); Edward W. Clyde, *Conflicts Between the Upper and Lower Basins on the Colorado River*, in *Resources Development: Frontiers for Research* 127-28 (1960). A recent (albeit broadly stated) expression of the Upper Basin’s position can be found in Letter from Scott Balcomb et al., Governors’ Representatives on Colorado River Operations of the States of Colorado, Wyoming, New Mexico & Utah to Herb Guenther et al., Governors’ Representatives of the States of Arizona, California, and Nevada (October 7, 2004) (“The fundamental issue for the Upper Basin relates to whether a deficiency exists under Article III(c) of the Compact, which would trigger an obligation of the Upper Basin to share in any such deficiency. As you are aware, it has been our consistent position that because no such deficiency has been shown to exist, the Upper Basin has no obligation in this regard.”).

⁶⁰ For scholarship identifying the Lower Basin’s position, see MacDonnell, *Disappearing Colorado River*, *supra* note 59, at 3 n 12; Schiffer et al., *supra* note 59, at 221-22; Carlson, *Breeding Ground*, *supra* note 59, at 15; Carlson, *Contrary Views*, *supra* note 59, at 36-37; Clyde, *Institutional Response*, *supra* note 59, at 113; David H. Getches, *Competing Demands for the Colorado River*, 56 U. Colo. L. Rev. 413, 421-22 (1985); Charles J. Meyers, *The Colorado River*, 19 Stan. L. Rev. 1, 16-17 (1966). Schiffer et al. provide the most thorough recent discussion of the Lower Basin’s position (*i.e.*, from Arizona’s viewpoint). Mr. Schiffer served as Chief Counsel for the Arizona Department of Water Resources at the time of the article’s publication.

the “Colorado River System”⁶¹ exceeds 16.0 maf in a given year, then the water over and above that amount constitutes “surplus” to be put toward Mexico’s treaty entitlement.

The Lower Basin’s position on this issue is compelling. As used in Article III(c), “surplus” seems to refer to water in the Colorado River System over and above the 16.0 maf apportioned annually for use in the Upper and Lower Basins by Articles III(a) and (b). This issue appears almost as clear cut as the tributaries issue – in relation to which the Lower Basin’s argument that its tributaries are exempted from the Mexican delivery obligation contradicts the plain text of Article III(c) (*i.e.*, the use of “Colorado River System” therein). Overall, the vast majority of evidence supports the Lower Basin’s construction of “surplus,” including (1) the text of Article III(c) and provisions incorporated therein; (2) the provisions comprising the statutory context surrounding Article III(c); and (3) the Negotiation Minutes addressing this aspect of Article III(c). The sections below survey relevant materials in each of these categories.

Article III(c)’s Text

A useful way to structure a textual analysis of Article III(c) in relation to the surplus issue is to evaluate the text based on the two main sections in which it appears. Article III(c) initially addresses the prospective establishment of a Mexican entitlement to Colorado River System water via treaty: “If, as a matter of international comity, the United States of America shall hereafter recognize in the United States of Mexico any right to the use of any waters of the Colorado River System” The provision then specifies in two sections how this water will be supplied to Mexico during (1) surplus conditions and (2) deficiency conditions.

- Surplus Conditions (Section One): “such waters shall be supplied first from *the waters*

⁶¹ Article II(a) defines “Colorado River System” as “that portion of the Colorado River and its tributaries within the United States of America.”

which are surplus over and above the aggregate of the quantities specified in [Articles III(a) and (b)]; . . .”

- Deficiency Conditions (Section Two): “if *such surplus* shall prove insufficient for this purpose, then the burden of *such deficiency* shall be equally borne by the Upper Basin and the Lower Basin, and whenever necessary the States of the Upper Division shall deliver at Lee Ferry water to supply one-half of the deficiency so recognized in addition to that provided in [Article III(d)].”

(Emphasis added.) The text of these two sections – especially, the use of the term “aggregate” in section one – provides strong support for the Lower Basin’s position that “surplus” refers to water in the Colorado River System over and above the 16.0 maf apportioned (in the aggregate) to the Upper and Lower Basins in Articles III(a) and (b).

Three phrases and terms in the first section of Article III(c) shed light on this issue: (1) “quantities specified in paragraphs (a) and (b)”; (2) “aggregate”; and (3) “waters which are surplus over and above.” The meanings of these phrases and terms are worth examining individually and then piecing together as they appear in Article III(c).

The phrase “quantities specified in paragraphs (a) and (b)” refers to the quantities associated with the sub-basin entitlements set forth in Articles III(a) and (b). These quantities are expressed plainly: Article III(a) entitles both the Upper and Lower Basins to the “exclusive beneficial consumptive use of 7,500,000 acre-feet of water per annum” from the Colorado River System, and Article III(b) authorizes the Lower Basin to increase its “beneficial consumptive use of such waters by one million acre-feet per annum.” The respective quantities of the entitlements of the Upper and Lower Basins are thus 7.5 maf and 8.5 maf annually.

Turning to “aggregate,” it is a term of common usage (*i.e.*, not a legal term), and therefore it is appropriate to assess its meaning by referencing dictionaries that existed (roughly) contemporaneously with the drafting of the Compact. Two notable definitions appear in these

contemporary dictionaries: “sum total”⁶² and “sum of particulars.”⁶³ It seems reasonable to treat “sum” as a synonym for “aggregate” in Article III(c) in light of these definitions – *i.e.*, the “[sum] of the quantities specified in [Articles III(a) and (b)].”

A similar approach is appropriate for the phrase “waters which are *surplus* over and above.” Definitions of “surplus” in contemporary dictionaries included: (1) “[a]mount left over when requirements have been met”⁶⁴ and (2) “[t]hat which remains when use or need is satisfied; excess; . . . [t]he remaining part.”⁶⁵ Like above, reasonable synonyms for “surplus” in Article III(c) seem to be “excess” or “remaining” per these definitions – *i.e.*, “waters which are [excess or remaining] over and above the [sum] of the quantities specified in [Articles III(a) and (b)].”

Piecing together the phrases and terms as construed above, the first section of Article III(c) provides that the Colorado River System waters to which Mexico is entitled “shall be supplied first from the waters which are [excess or remaining] over and above the [sum] of the quantities specified in [Articles III(a) and (b) – *i.e.*, 7.5 maf and 8.5 maf].” The “aggregate” of 7.5 maf and 8.5 maf is unambiguous – 16.0 maf. The text provides that this quantity – *not* the singular quantities associated with the sub-basins’ entitlements (7.5 maf; 8.5 maf) – defines the line above which “surplus” waters exist and must be used to supply water to Mexico. The Upper Basin’s contrary view essentially ignores the role of “aggregate” in defining surplus conditions.⁶⁶

The text of the second section of Article III(c) comports with this interpretation. Nothing

⁶² The Pocket Oxford Dictionary of Current English 16 (1925).

⁶³ Webster’s International Dictionary of the English Language 49 (2d ed. 1935).

⁶⁴ The Pocket Oxford Dictionary of Current English 842 (1925).

⁶⁵ Webster’s International Dictionary of the English Language 2,539 (2d ed. 1935).

⁶⁶ See, e.g., Carlson & Boles, *supra* note 59, at 21.05[2][a] (“[T]he Upper Basin’s position in this respect contravenes the express language of Article III(c), which provides that the Mexican treaty water ‘shall be supplied first from the waters which are surplus over and above the aggregate of the quantities specified in paragraphs (a) and (b)’”).

about this text suggests that “surplus” water refers to amounts of water by which the sub-basins are exceeding their individual entitlements in Articles III(a) and (b). Specifically, the second section of Article III(c) comes into play if “such surplus” – *i.e.*, Colorado River System water over and above the 16.0 maf apportioned in Articles III(a) and (b) – proves insufficient to supply Mexico’s treaty entitlement. In this situation, the Upper and Lower Basins must equally bear the “deficiency” – which contemporary dictionaries define as “shortage” or “deficit”⁶⁷ – and this obligation entails the Upper Division delivering at Lee Ferry one-half of the water associated with the deficiency plus the water required to comply with Article III(d). No aspect of this text contradicts the conclusion compelled by the first section of Article III(c): The aggregate 16.0 maf allocated in Articles III(a) and (b) defines the baseline for surplus (or deficiency) conditions.

Contextual Provisions

In addition to its text, two types of provisions surrounding Article III(c) shed further light on the meaning of “surplus” therein: (1) provisions illustrating the ability of the Compact Commissioners (Commissioners) to reference the entitlements of the Upper and Lower Basins in Articles III(a) and (b) individually rather than in the aggregate and (2) provisions emphasizing equity as the overarching norm around which the Compact’s apportionment scheme is framed and according to which “surplus” should be construed in Article III(c).⁶⁸

⁶⁷ The Pocket Oxford Dictionary of Current English 211 (1925) (“lack or shortage (*of*) . . . deficit”). *See also* Webster’s International Dictionary of the English Language 687 (2d ed. 1935) (defining “deficiency” as the “state or quality of being deficient; inadequacy; defect”; defining “deficient” as “[I]acking in some quality, characteristic, or the like, necessary for completeness; . . . not up to a given or normal standard; not sufficient; defective; lacking; . . . also, needed to make up completeness; as, the amount *deficient* was easily made up”).

⁶⁸ Various provisions surrounding Article III(c) reflect the Commissioners’ understanding that more than 16.0 maf per year of water exists within the Colorado River System – *e.g.*, Article I (noting Compact’s apportionment scheme accounts for use of “part of the water of the Colorado River System”); Article III(f) (authorizing “[f]urther equitable apportionment of the beneficial uses of the waters of the Colorado River System unapportioned by paragraphs (a), (b), and (c)”); Article VI (prescribing dispute resolution procedures applicable to claims or controversies involving

Entitlement-Specific References

At least two provisions – Articles III(b) and (f) – illustrate that the Commissioners were capable of referencing the individual entitlements of the Upper and Lower Basins – *i.e.*, rather than the “aggregate of the quantities” associated with those entitlements – when drafting sections of the Compact calling for such an approach. The fact that the Commissioners did not use entitlement-specific references in Article III(c) weighs against the Upper Basin’s position.

Article III(f) authorizes an equitable apportionment beyond that initially established by the Compact if either sub-basin has begun using the full amount of its entitlement in Articles III(a) and (b) after October 1, 1963. The text of Article III(f) provides:

“Further equitable apportionment of the beneficial uses of the waters of the Colorado River System unapportioned by paragraphs (a), (b), and (c) may be made in the manner provided in paragraph (g) at any time after October first, 1963, *if and when either Basin shall have reached its total beneficial consumptive use as set out in paragraphs (a) and (b).*” (Emphasis added.)

As identified in the italicized text, Article III(f) includes an entitlement-specific reference to designate the triggering event for further equitable apportionment, which contrasts significantly with the “aggregate”-based reference used to designate the triggering event for surplus conditions in Article III(c). After October 1, 1963, further equitable apportionment may be pursued under Article III(f) if “*either Basin*” approaches “*its*” full entitlement in Articles III(a) and (b). The singular nature of this text unambiguously focuses on the individual entitlements of the sub-basins when defining the triggering event. The text of Article III(c) contrasts sharply with this approach: Surplus conditions are triggered when Colorado River System waters exist over and above “the *aggregate* of the quantities specified in [Articles III(a)

“waters of the Colorado River System not covered by the terms of this compact.”). These provisions do not appear relevant in sorting out the relative merits of the Upper and Lower Basins’ positions on the surplus issue.

and (b)].” (Emphasis added.) This text is collective rather than singular in nature. It references the entitlements of the Upper and Lower Basins in the aggregate – not individually.

Article III(b) provides a second example of an entitlement-specific reference. In supplementing the Lower Basin’s entitlement set forth in Article III(a), Article III(b) references that entitlement (and the Lower Basin) in the singular: “In addition to *the* apportionment in paragraph (a), the Lower Basin is hereby given the right to increase *its* beneficial consumptive use of such waters by one million acre-feet per annum.” (Emphasis added).

The implication of the entitlement-specific references in Articles III(b) and (f) is straightforward: If the Commissioners had intended “surplus” to refer to water over and above that associated with the sub-basins’ individual entitlements, they would have drafted Article III(c) to resemble Articles III(b) and (f) in this respect. Among other things, the Commissioners would have omitted “aggregate” from Article III(c) – *e.g.*, “such waters shall be supplied first from the waters which are surplus over and above . . . the quantities specified in paragraphs (a) and (b).” Initial drafts of Article III(c) contained phrases resembling this one (see below). But “aggregate” unmistakably made its way into the final version of the Compact.

Equity-Based Provisions

Faced with the contrary textual and contextual evidence described above, one *potential* source of support for the Upper Basin’s position consists of the myriad provisions within the Compact emphasizing equity as the norm around which the apportionment scheme is framed.⁶⁹

The Upper Basin’s potential argument foreseeably might consist of two parts: (1) The

⁶⁹ Carlson & Boles suggest the Upper Basin’s position might be viable based on the following rationale: “[T]he underlying purpose of this argument does conform to the intent of the Compact Commissioners to equalize the Article III(a) apportionments provided to each Basin and furthermore to match the Upper Basin’s Article III(d) delivery obligation to the amount of those apportionments.” Carlson & Boles, *supra* note 59, at 21.05[2][a].

Commissioners' purpose in drafting the Compact was to effectuate an equitable apportionment of the waters of the Colorado River System, and (2) construing "surplus" in Article III(c) as referring to water used in excess of the sub-basins' entitlements in Articles III(a) and (b) fulfills this purpose (at least presumably to a greater extent than does the Lower Basin's interpretation).

The first part of this potential argument has ample support. Article I expressly states: "The major purposes of this compact are to provide for the equitable division and apportionment of the use of the waters of the Colorado River System" ⁷⁰ This purpose is echoed and manifest throughout the subsections of Article III: Articles III(a) and (b) (apportioning almost equal entitlements of 7.5 maf and 8.5 maf to Upper and Lower Basins respectively); Article III(c) (requiring Upper and Lower Basins to equally bear the burden of contributing water to Mexico's entitlement in deficiency conditions); Article III(d) (providing Upper Basin with flexibility in making annual deliveries to satisfy delivery obligation to Lower Basin of 75 maf every consecutive ten years); Article III(e) (prohibiting Upper Division from withholding water, and Lower Division from requiring delivery of water, that "cannot reasonably be applied to domestic and agricultural uses"); Article III(f) (providing for further equitable apportionment of initially unapportioned Colorado River System waters); Article III(g) (defining duty of public officials engaged in further apportionment per Article III(f) as "to divide and apportion equitably" Colorado River System water between Upper and Lower Basins).

The second part of the potential argument, however, is more difficult to support. Article III(c) – specifically, section one addressing surplus conditions – exists in the midst of the numerous equity-related provisions identified above *and* presumably mirrors (rather than

⁷⁰ Delph Carpenter, the Colorado Commissioner, described the purposes statement in Article I as a guide to the intent of the Commissioners with regard to the content of the Compact. See Minutes of the Twenty-Second Meeting of the Colorado River Commission, November 22, 1922, at 167. The colloquy in which Carpenter made this statement is quoted in the discussion of the tributaries issue.

contradicts) them. Put differently, the definition of “surplus” supported by a straightforward reading of Article III’s text – Colorado River System waters “over and above the aggregate of the quantities specified in [Articles III(a) and (b)]” – is not inherently inequitable (*i.e.*, not inherently at odds with the Compact’s overarching purpose of equitable apportionment). To the contrary, the plain text of Article III(c) suggests that the Commissioners actually considered the definition of “surplus” set forth therein to be equitable, existing alongside the other subsections of Article III oriented toward equity. The Upper Basin position (at least as characterized here) essentially (1) assumes the “aggregate”-based definition of “surplus” conflicts with the Commissioners’ intent to craft an equitable apportionment scheme and (2) calls for projecting an entitlement-specific definition of “surplus” onto Article III(c) despite the clear expression of the Commissioners’ contrary intent reflected in that provision’s text. Both aspects of this position are problematic.

Negotiation Minutes

Serving as an additional point of reference for determining the meaning of “surplus,” the Negotiation Minutes identify predecessors to the final version of Article III(c), and associated discussions among the Commissioners, spanning from the Eleventh to the Twenty-Fifth Meetings. These antecedent provisions and related discussions can be categorized into three time periods based on the following events: (1) *Eleventh Meeting* – introduction of a draft compact containing a provision mandating equal sharing of the burden of Mexico’s treaty entitlement by the Upper and Lower Divisions; (2) *Twenty-Second Meeting* – insertion of a clause addressing the use of “surplus” water to supply Mexico’s treaty entitlement in a subsequent draft of Article III(c); and (3) *Twenty-Fourth Meeting* – amendment of Article III(c)

to include “aggregate” in the clause addressing surplus water. The evolution of Article III(c) over these three periods supports the inference that the inclusion of an “aggregate”-based definition of “surplus” in the final version of the Article was deliberate and purposeful – although the Commissioners did not engage in any smoking-gun exchanges about this issue.

The emergence of an Article addressing the obligations of the Upper and Lower Basins with regard to Mexico’s treaty entitlement can be attributed (at least in part) to Delph Carpenter, the Colorado Commissioner, who submitted a draft compact at the Eleventh Meeting containing a provision calling for equal sharing of this burden:

“[Article III:] The High Contracting Parties agree that the duty and burden of supplying any waters from the flow of the Colorado River within the United States of America to the Republic of Mexico . . . shall be *equally apportioned between and equally borne by the Upper Division and the Lower Division* of the Colorado River within the United States of America; that the annual delivery at Lee’s Ferry, by the States of the Upper Division, of a quantity of water equivalent to one-half the annual amount required to satisfy any such international obligations shall be a complete fulfillment of the provisions of this Article by said States; and that the States of the Lower Division shall contribute annually a like amount of water from those waters of the river annually to pass Lee’s Ferry for the Lower Division, as provided in Paragraph two (2) of Article II of this compact, and from the flow of tributaries entering the river below Lee’s Ferry, and further, shall cause the water contributed by both divisions to be delivered to the Republic of Mexico in conformity with any such treaty obligations.” (Emphasis added.)

Between the Eleventh and Twenty-Second Meetings, subsequent draft provisions addressing the sub-basins’ respective obligations toward Mexico (and discussions among the Commissioners about this topic) reflected the make-up of Article III of Carpenter’s draft compact in two ways: (1) they emphasized equal sharing of the Mexican treaty obligation, incorporating the phrase “equally apportioned between and equally borne by,” and (2) they did not address “surplus” water and its role as a source of supply for Mexico’s entitlement (*e.g.*, in a clause separate from portions of the provisions calling for equal sharing). Examples of draft

provisions introduced during this initial period include the following:⁷¹

- Eighteenth Meeting: “The burden, if any, of supplying water from the flow of the Colorado River to the Republic of Mexico shall be *equally apportioned* between the two divisions.”⁷²
- Nineteenth Meeting:
 - “The contracting states agree that the burden of supplying water of the Colorado River System from the United States of America to the Republic of Mexico in fulfillment of obligations, if any, which may exist, or may be determined to exist between the two Nations, shall be *equally apportioned between and equally borne by* the Upper Division and Lower Division; and the States of the Upper Division shall deliver at Lee Ferry a quantity of water over and above that provided in Article III which will enable the fulfillment of one-half of the amount required to satisfy such delivery.”⁷³
 - “If in the adjustment of international relations, the Republic of Mexico shall hereafter establish any rights to waters from the Colorado River System, the burden of supplying such water shall be *equally apportioned between and equally borne by* the Upper Basin and Lower Basin; and the States of the Upper Basin shall deliver at Lee Ferry a quantity of water over and above that provided in Article III which will enable the fulfillment of one-half of the amount required to satisfy such delivery.”⁷⁴
- Twentieth Meeting:
 - “The burden of supplying water of the Colorado River System from the United States of America to the United States of Mexico in fulfillment of obligations, if any, which may exist, or may be determined to exist, by the two governments shall be *equally apportioned between and equally borne by* the upper basin and lower basin and the states of the upper basin shall deliver at Lee Ferry a quantity of water over and above that provided in Art. IIIx, which will enable the fulfillment of one half of the amount required to satisfy such delivery.”⁷⁵

⁷¹ See also Minutes of the Sixteenth Meeting of the Colorado River Commission, November 14, 1922, at 83 (discussing equal sharing of Mexican treaty burden); Minutes of the Seventeenth Meeting of the Colorado River Commission, November 15, 1922, at 112 (oral proposal by W.S. Norviel, Arizona Commissioner, calling for equal sharing of Mexican treaty burden).

⁷² Minutes of the Eighteenth Meeting of the Colorado River Commission, November 16, 1922, at 146 (emphasis added).

⁷³ Minutes of the Nineteenth Meeting of the Colorado River Commission, November 19, 1922, at 39 (emphasis added).

⁷⁴ *Id.* at 49-50 (emphasis added).

⁷⁵ Minutes of the Twentieth Meeting of the Colorado River Commission, November 19, 1922, at 63-64 (emphasis added). The Commissioners discussed the Mexican treaty obligation at length throughout this meeting. See *id.* at

- “The burden of supplying water of the Colorado River System from the United States of America to the United States of Mexico in fulfillment of obligations, if any, which may be established, shall be *equally apportioned between and equally borne* by the upper and lower basin.”⁷⁶

While retaining the focus on equal sharing expressed in the “equally apportioned between and equally borne by” clauses of its predecessors, the draft of Article III(c) introduced at the Twenty-Second Meeting departed from those provisions by including a clause addressing “surplus” water and its role in supplying Mexico’s treaty entitlement for the first time.

“If, as a matter of international comity, the United States of America shall hereafter recognize in the United States of Mexico any right to the use of the waters of the Colorado River System, such waters shall first be supplied from *the surplus water after the above amounts have been satisfied*; and if such surplus water shall prove insufficient for this purpose, then the deficiency shall be *equally apportioned between and equally borne* by the upper basin and the lower basin, and the states of the upper division shall deliver at Lees Ferry one half of the deficiency so recognized in addition to that provided in paragraph (b).”⁷⁷

The italicized text of this provision differs significantly from that in the final version of Article III(c). The terms “above amounts” referenced the sub-basin entitlements in drafts of Articles III(a) and (b) – similar to the phrase “quantities specified in paragraphs (a) and (b)” in the final version of Article III(c) – but there is no analogue to the term “aggregate” in this draft provision. Based on its inclusion of “above amounts” (pluralized) and the omission of an analogue to “aggregate,” “surplus” as defined herein reasonably could be construed as referring to waters above the amounts associated with the individual sub-basin entitlements.

The draft of Article III(c) introduced at the Twenty-Second Meeting persisted in the form

53-70. A provision similar to the one quoted here was introduced earlier in the meeting – see *id.* at 53-54 – and an almost identical version of it was set out as Article VII in a draft version of the Compact appended to the meeting minutes. See *id.* at 94.

⁷⁶ *Id.* at 69 (emphasis added).

⁷⁷ Minutes of the Twenty-Second Meeting of the Colorado River Commission, November 22, 1922, at 138 (emphasis added).

above – containing a surplus water clause without an analogue to “aggregate” – through the Twenty-Third Meeting. The Commissioners accepted a nearly identical version of the provision at that meeting with little discussion – only the following exchange between Herbert Hoover, the Federal Commissioner, and Frank C. Emerson, the Wyoming Commissioner:

“MR. EMERSON: I suggest in paragraph (c), fifth line, we make ‘water’ plural.

“MR. HOOVER: I don’t think there is any such thing. Any further comment on (c)? (Accepted).”⁷⁸

The use of “water” to which Emerson was referring appeared in the middle of the surplus water clause: “such waters shall first be supplied from the surplus *water* after the above amounts have been satisfied[.]”⁷⁹ Emerson’s reason for proposing changing this term from the singular to the plural is unclear – and certainly not alone dispositive of this issue. One possibility, however, is that he understood the terms “surplus water” within this clause as referring to water over and above the amounts of the individual sub-basins’ entitlements set forth in drafts of Articles III(a) and (b) and that he considered the pluralized term “waters” to align with this meaning.

Ultimately, the term “aggregate” found its way into Article III(c) via an amendment to the existing draft of that provision made at the Twenty-Fourth Meeting:

“If, as a matter of international comity, the United States of America shall hereafter recognize in the United States of Mexico any right to the use of any waters of the Colorado River System, *such waters shall be supplied first from the waters which are surplus over and above the aggregate of the quantities specified in paragraphs (a) and (b)*; and if such surplus shall prove insufficient for this purpose, then, the burden of such deficiency shall be equally apportioned between and equally borne by the Upper Basin and the Lower Basin, and whenever necessary the States of the Upper Division shall deliver at Lee Ferry water to supply one-half of the

⁷⁸ Minutes of the Twenty-Third Meeting of the Colorado River Commission, November 22, 1922, at 187.

⁷⁹ *Id.* at 186-87 (emphasis added).

deficiency so recognized in addition to that provided in paragraph (d).”⁸⁰

This draft of Article III(c) is appended to the meeting minutes. No discussion of the amendment among the Commissioners is identified in the minutes. As the text reveals, the amendment entailed inserting the phrase “waters which are surplus over and above the aggregate of the quantities specified in paragraphs (a) and (b)” in place of the phrase “surplus water after the above amounts have been satisfied” in the previous draft. The Commissioners subsequently made a minor amendment to Article III(c) at the Twenty-Fifth Meeting⁸¹ – not relevant here – and they adopted the Compact in its entirety shortly after at the Twenty-Seventh Meeting.⁸²

Conclusion

In conclusion, the balance of the textual, contextual, and historical material surveyed above favors the Lower Basin’s position on the surplus issue: As used in Article III(c), “surplus” waters consist of waters in the Colorado River System over and above the 16.0 maf specified in Article III(a) and (b) in relation to the entitlements of the Upper and Lower Basins. The inclusion of the term “aggregate” in the final version of Article III(c) appears to provide virtually irrefutable evidence supporting this interpretation (and contravening the entitlement-specific construction of “surplus” advocated by the Upper Basin).

⁸⁰ Minutes of the Twenty-Fourth Meeting of the Colorado River Commission, November 23, 1922, at 239 (emphasis added).

⁸¹ Minutes of the Twenty-Fifth Meeting of the Colorado River Commission, November 23, 1922, at 255-56, 260.

⁸² Minutes of the Twenty-Seventh Meeting of the Colorado River Commission, November 24, 1922, at 305.

Evaporation Issue

Question: Does the Upper Basin's obligation to supply water for Mexico's treaty entitlement during "deficiency" conditions⁸³ under Article III(c) include coverage of one-half of the evaporation losses between Lee Ferry and the Mexican points of delivery?⁸⁴

The Lower Basin asserts an affirmative answer to this question:

"[T]he Mexican Treaty obligation to be shared by the Upper Division States should include not only one-half of the 1.5 MAF of mainstream Colorado River water delivered to Mexico during [deficiency] years, but in addition, one-half of the estimated 286,000 AF of losses that occur as the water moves through the Lower Basin to the Mexican border delivery points. The total Upper Division share of the Mexican Treaty obligation should therefore be approximately 0.9 MAF in most deficiency years."⁸⁵

The Upper Basin contends the opposite:

"This issue was raised just twice during the compact negotiations. The commissioners discussed designating Yuma, Arizona, as the delivery point for water due Mexico. Delph Carpenter, commissioner for the State of Colorado, commented that such a designation would have the effect of imposing an additional burden on the Upper Basin. The notion of locating the delivery point at Yuma was subsequently abandoned. Article III(c) states that the Upper Basin "shall deliver at Lee Ferry water to supply one-half of the deficiency." By specifically designating Lee's Ferry as the point of delivery, the 1922 Compact expressly relieves the Upper Basin of any duty to compensate for channel losses occurring below that point."⁸⁶

As shown below, the Upper Basin's position appears stronger on this issue, although the

⁸³ The meaning of "deficiency" and "surplus" conditions is discussed below in the textual analysis.

⁸⁴ Useful scholarship identifying and discussing this issue includes Lawrence J. MacDonnell, *The Disappearing Colorado River* 9 W. Econ. F. 1, 3 (2010); Norris Hundley, Jr., *Water and the West: The Colorado River Compact and the Politics of Water in the American West* 204 n 77 (2d ed 2009); W. Patrick Schiffer et al., *From a Colorado River Compact Challenge to the Next Era of Cooperation Among the Seven Basin States*, 49 Ariz. L. Rev. 217, 225 (2007); John U. Carlson, *The Colorado River Compact: A Breeding Ground for International, National, and Interstate Controversies* 20-21, Natural Resources Law Center, University of Colorado School of Law, June 5-7, 1989; John U. Carlson & Alan E. Boles, *Contrary Views of the Law of the Colorado River: An Examination of Rivalries Between the Upper and Lower Basins*, 32 Rocky Mtn. Min. L. Inst. 21-1, 21.05[2][c] (1986); Edward W. Clyde, *Institutional Response to Prolonged Drought, in New Courses for the Colorado River* 112, 119 (1986); David H. Getches, *Competing Demands for the Colorado River*, 56 U. Colo. L. Rev. 413, 422-23 (1985); Charles J. Meyers, *The Colorado River*, 19 Stan. L. Rev. 1, 17, 24 (1966).

⁸⁵ Schiffer et al., *supra* note 84, at 225.

⁸⁶ Carlson, *Breeding Ground*, *supra* note 84, at 20-21 (emphasis in original).

analysis is not quite as clear cut as that for the tributaries and surplus issues – in large part because of the absence of comparable textual evidence (*i.e.*, the inclusion of “Colorado River System” and “aggregate,” respectively, in Article III(c)). On balance, however, the textual, contextual, and historical materials suggest the Upper Basin would likely prevail if this issue were presented to the Supreme Court. The sections below provide preliminary examinations of these materials.

Article III(c)’s Text

The text of Article III(c) states as follows:

“If, as a matter of international comity, the United States of America shall hereafter recognize in the United States of Mexico any right to the use of any waters of the Colorado River System, such waters shall be supplied first from the waters which are surplus over and above the aggregate of the quantities specified in paragraphs (a) and (b); and if such surplus shall prove insufficient for this purpose, then, *the burden of such deficiency shall be equally borne by the Upper Basin and the Lower Basin*, and whenever necessary *the States of the Upper Division shall deliver at Lee Ferry water to supply one-half of the deficiency* recognized in addition to that provided in paragraph (d).” (Emphasis added.)

Evaporation losses are not addressed in this text – which, as noted, makes this issue different than the tributaries issue (“Colorado River System”) and the surplus issue (“aggregate”) at this stage of the analysis. In the absence of an express reference to evaporation losses, at least three terms are relevant to this issue: (1) “equally borne”; (2) “Lee Ferry”; and (3) “deficiency.”

The meaning of “equally borne” within Article III(c) is plain: The Upper and Lower Basins are required to equally bear the burden of any “deficiency” associated with supplying water for Mexico’s treaty entitlement, and the Upper Division is obligated to deliver water at Lee Ferry to supply one-half of any such “deficiency.” In short, these clauses establish an equal sharing relationship. Left unanswered by them, however, is the meaning of the thing to be

equally shared – specifically, whether “deficiency” encompasses evaporation losses.

Some commentators consider this issue resolved based upon Article III(c)’s designation of “Lee Ferry” as the delivery point for the Upper Division’s share of Mexican treaty water in “deficiency” conditions.⁸⁷ The obligations of the Upper Basin to provide this treaty water (and to cover evaporation losses thereof) cease at Lee Ferry on this view. This rationale is persuasive, but it seems to require further examination of the term “deficiency.” Does the term encompass evaporation losses? That is, although Article III(c) designates “Lee Ferry” as the point where the Upper Division must deliver water to cover one-half of any “deficiency,” this designation itself does not address whether evaporation losses in the Lower Basin are subsumed within the thing for which a one-half contribution of water is required (*i.e.*, the “deficiency”).

It would appear that the resolution of the evaporation issue hinges as much on the meaning of “deficiency” within Article III(c) as it does on the designation of “Lee Ferry” as the delivery point. Again, does the former term account for evaporation losses in the Lower Basin as something that “shall be equally borne by” the sub-basins and that the Upper Division is obligated to deliver “water to supply one-half of” at Lee Ferry? Answering this question – *i.e.*, defining “deficiency” – initially requires considering the meaning of “surplus” in Article III(c): Colorado River System waters over and above the aggregate 16.0 maf apportioned to the Upper and Lower Basins in Articles III(a) and (b).⁸⁸ This definition is inseparable from the definition of “deficiency.” If insufficient “surplus” waters exist to supply Mexico’s treaty entitlement of 1.5 maf in a given year, then “the burden of such deficiency shall be equally borne by the Upper Basin and the Lower Basin, and . . . the Upper Division shall deliver at Lee Ferry water to supply

⁸⁷ See, e.g., Carlson, *supra* note 84, at 21 (“By specifically designating Lee’s Ferry as the point of delivery, the 1922 Compact expressly relieves the Upper Basin of any duty to compensate for channel losses occurring below that point.”); Carlson & Boles, *supra* note 84, at 21.05[2][c] (same); Clyde, *supra* note 84, at 112, 119 (same).

⁸⁸ A full analysis of the definition of “surplus” can be found in the earlier discussion devoted to this issue.

one-half of the deficiency” “Deficiency” thus refers to a shortfall: the amount by which “surplus” waters fall short of supplying Mexico’s treaty entitlement.⁸⁹

Having defined “deficiency” as the foregoing type of shortfall, a key consideration in resolving the evaporation issue is Article III(c)’s silence on evaporation losses in relation to the processes prescribed for determining surplus and deficiency conditions. In determining the existence of “surplus” waters, Article III(c) calls for an assessment of the amount of water in the Colorado River System in a given year vis-à-vis the 16.0 maf apportioned to the Upper and Lower Basins collectively in Articles III(a) and (b). In turn, in determining the existence of a “deficiency,” Article III(c) requires assessing the extent to which “surplus” waters exist to supply Mexico’s treaty entitlement. Neither assessment accounts for evaporation losses. Instead, both entail assessing the relevant amount of available water vis-à-vis the relevant entitlement(s).

Article III(c)’s silence in this respect thus suggests two things: (1) the provision only requires equally sharing of the amount by which “surplus” waters fall short of supplying treaty water to Mexico (*i.e.*, without consideration of evaporation losses in the Lower Basin (or Upper Basin)) and (2) the sub-basins must account for (“stomach”) evaporation losses on an individual basis when supplying the requisite amount of treaty water in “deficiency” conditions. This interpretation comports with the Upper Basin’s position: It is not obligated to cover one-half of the evaporation losses in the Lower Basin when a “deficiency” exists.

⁸⁹ The use of “shortfall” as a synonym for “deficiency” comports with definitions contained in dictionaries that existed (roughly) contemporaneously with the drafting of the Compact. *See, e.g.*, The Pocket Oxford Dictionary of Current English 211 (1925) (defining “deficiency: as “lack or shortage (*of*) . . . deficit”); Webster’s International Dictionary of the English Language 687 (2d ed. 1935) (defining “deficiency” as the “state or quality of being deficient; inadequacy; defect” and defining “deficient” as “[l]acking in some quality, characteristic, or the like, necessary for completeness; . . . not up to a given or normal standard; not sufficient; defective; lacking; . . . also, needed to make up completeness; as, the amount *deficient* was easily made up”).

Contextual Provisions

Although Article III(c)'s text is fairly useful in resolving the evaporation issue, there is a dearth of relevant provisions in the surrounding context. At the outset, it is notable that the Commissioners did not address evaporation losses anywhere in the Compact. If they had done so, the contrasting absence of any express treatment of evaporation losses in Article III(c) would lend support to the Upper Basin's position. But no such distinction can be made. Beyond this initial observation, at least two types of contextual provisions are worth noting relevant to this issue, although neither of them provides a definitive resolution to it.

The first type of provisions consists of those emphasizing the sub-basins as the primary political units around which the Compact's apportionment scheme is framed. The structure of the apportionment scheme in this respect bolsters the notion that each sub-basin should be obligated to account solely for its own portion of evaporation losses – *i.e.*, out of its own entitlement – when supplying Mexican treaty water toward a “deficiency.” Examples of relevant provisions in this vein include Article I (establishing sub-basin structure for apportionment scheme); Articles III(a) and (b) (apportioning sub-basins' entitlements); Article III(d) (imposing delivery obligation on Upper Basin vis-à-vis Lower Basin); Article III(g) (providing for further equitable apportionment by sub-basins); and Article VIII (providing water rights to Colorado River System waters must be satisfied from entitlement of sub-basin in which rights are situate).

Although these provisions are worth noting in relation to the evaporation issue, their persuasive force is qualified for at least two reasons. First, not all provisions comprising the Compact's apportionment scheme emphasize the sub-basins as the relevant political units. For example, Articles IV(a) and (b) establish use hierarchies for Colorado River System water (domestic, agricultural, power, navigation) that apply to the apportionment scheme on a

basinwide scale. Second, it is questionable whether the predominantly sub-basin-based structure of the apportionment scheme adheres in the same manner to U.S.-Mexico relations (*i.e.*, in the context of Article III(c)) as it does to domestic relations (*i.e.*, in the context of Article III(a), (b), (d), (e), (g)). As noted, the processes for determining the existence of “surplus” waters and any associated “deficiency” are basinwide in scope. The former requires assessing if more than 16.0 maf exists in the Colorado River System in a given year. The latter involves assessing the extent to which surplus waters fall short of supplying Mexico’s treaty entitlement (albeit requiring equal contributions from the sub-basins based on this calculation). In short, the United States and Mexico (federal sovereigns) arguably are the relevant political units within Article III(c).

A second group of contextual provisions worth considering in relation to the evaporation issue are those identifying equity as the core norm underlying the Compact’s apportionment scheme. In drawing attention to these provisions, the notion is twofold: (1) equity should inform any interpretation of ambiguous or omitted text in Article III(c) and (2) the Lower Basin’s construction of Article III(c) comports with equity more so than does the Upper Basin’s position. Notable equity-oriented provisions within the Compact include Article I (identifying equitable apportionment as purpose of Compact);⁹⁰ Articles III(a) and (b) (allocating almost equal entitlements of 7.5 maf and 8.5 maf to Upper and Lower Basins respectively); Article III(c) (requiring Upper and Lower Basins to equally bear the burden of contributing Mexican treaty water in deficiency conditions); Article III(f) (providing for further equitable apportionment of initially unapportioned Colorado River System waters); Article III(g) (defining duty of public officials engaged in further apportionment per Article III(f) as “to divide and apportion

⁹⁰ Delph Carpenter, the Colorado Commissioner, described the purposes statement in Article I as a guide to the intent of the Commissioners with regard to the content of the Compact. See Minutes of the Twenty-Second Meeting of the Colorado River Commission, November 22, 1922, at 167. The colloquy in which Carpenter made this statement is quoted earlier in the tributaries issue discussion.

equitably” Colorado River System water between Upper and Lower Basins).

The main shortcoming with relying on these provisions to support the Lower Basin’s position essentially is that “equity” is in the eye of the beholder – *i.e.*, it is questionable whether interpreting Article III(c) to require the Upper Basin to cover one-half of the Lower Basin evaporation losses indeed is “equitable.” Average evaporation losses in the Lower Basin (1.235 maf/yr.) are higher than those in the Upper Basin (0.56 maf/yr.).⁹¹ At the same time, however, the entitlement of the Lower Basin (8.5 maf/yr.) is 1.0 maf larger than that of the Upper Basin (7.5 maf/yr.). Based on these numbers, if evaporation losses are covered in accordance with the Lower Basin’s position, the sub-basins’ respective contributions of treaty water will be (1) *Upper Basin* – 1.1175 maf/yr. (out of 7.5 maf entitlement) versus (2) *Lower Basin* – 0.6775 maf/yr. (out of 8.5 maf entitlement). In contrast, if the Upper Basin’s position is adhered to, the respective contributions will be (1) *Upper Basin* – 0.56 maf/yr. (out of 7.5 maf entitlement) versus (2) *Lower Basin* – 1.235 maf/yr. (out of 8.5 maf entitlement). There is no clear cut (non-subjective) answer regarding which of these two interpretations is more “equitable.”⁹²

At the end of the day, although the contextual materials identified in this section potentially might have some bearing on the evaporation issue, they do not shed much (if any) additional light beyond that provided by Article III(c)’s text. For further evidence of the Commissioners’ intent, the Negotiation Minutes need to be consulted, as they offer perhaps the clearest indication of the intended meaning of Article III(c) in this regard.

⁹¹ The annual average evaporation losses included here are drawn from a spreadsheet produced by Carly Jerla from the U.S. Bureau of Reclamation.

⁹² Perhaps the most “equitable” interpretation of Article III(c) would be to require the sub-basins to cover equal portions of evaporation losses as calculated on a basinwide scale (*i.e.*, similar to the assessment of “surplus”). The sub-basins’ respective contributions toward treaty water under this interpretation would be (1) *Upper Basin* – 0.8975 maf/yr. (out of 7.5 maf entitlement) versus (2) *Lower Basin* – 0.8975 maf/yr. (out of 8.5 maf entitlement).

Negotiation Minutes

An ideal starting point for examining the Negotiation Minutes with respect to the evaporation issue is the submission of a draft Compact by Delph Carpenter, the Colorado Commissioner, at the Eleventh Meeting. Between this event and the adoption of the final version of Article III(c) at the Twenty-Seventh Meeting, the Commissioners engaged in at least four key exchanges concerning the evaporation issue, and the text of Article III(c) evolved in at least one significant way. Each of these events lends support to the Upper Basin's position – albeit in varying degrees. This section tracks these events chronologically.

The draft Compact proposed by Carpenter at the Eleventh Meeting laid the foundation for the final version of the Compact in multiple respects. As relevant here, the draft contained an Article III that closely resembled the final version of Article III(c):

“[Article III:] The High Contracting Parties agree that the duty and burden of supplying any waters from the flow of the Colorado River within the United States of America to the Republic of Mexico . . . shall be *equally apportioned* between and *equally borne* by the Upper Division and the Lower Division of the Colorado River within the United States of America; *that the annual delivery at Lee's Ferry, by the States of the Upper Division, of a quantity of water equivalent to one-half the annual amount required to satisfy any such international obligations shall be a complete fulfillment of the provisions of this Article by said States*; and that the States of the Lower Division shall contribute annually a like amount of water from those waters of the river annually to pass Lee's Ferry for the Lower Division, as provided in Paragraph two (2) of Article II of this compact, and from the flow of tributaries entering the river below Lee's Ferry, and further, shall cause the water contributed by both divisions to be delivered to the Republic of Mexico in conformity with any such treaty obligations.”⁹³

This provision clearly lacked the terms “surplus” and “deficiency” – and the corresponding assessments associated with those terms – set forth in the final version of Article III(c). Nonetheless, reflecting that provision, this draft of Article III (1) called for equal sharing

⁹³ Minutes of the Eleventh Meeting of the Colorado River Commission, November 11, 1922, at 24 (emphasis added). All citations to the Minutes of the Negotiations refer to the pagination of the electronic copy of the Minutes available at <http://www.riversimulator.org/Resources/LawOfTheRiver/MinutesColoradoRiverCompact.pdf>.

between the Upper and Lower Divisions vis-à-vis Mexico's entitlement; (2) designated "Lee's Ferry" as the delivery point for the Upper Division's one-half contribution of this water; and (3) provided that the Upper Division's delivery of the water at Lee's Ferry "shall be a *complete fulfillment* of the provisions of this Article by said States." (Emphasis added.)

Shortly after Carpenter's submission of his draft Compact, the evaporation issue was vetted at length during the Twelfth Meeting in relation to the draft's Article III. Two notable exchanges occurred during this meeting. An initial exchange took place between Carpenter and W.S. Norviel, the Arizona Commissioner, which left little doubt that the draft Article did not obligate the Upper Basin to contribute to evaporation losses in the Lower Basin.

"MR. NORVIEL: In the proposal that one-half the allotment to Mexico is to be delivered at Lee's Ferry, is any estimate to be made of the loss by evaporation or percolation between Lee's Ferry and the point of diversion to Mexico?"

"MR. CARPENTER: No. That was considered. It was thought that the power benefits and other benefits that would run to the lower country would offset the losses. That power benefits would run to the lower territory, as the water flows along it would furnish an additional amount of energy that would be availed of by the lower country for their development. It was thought that that would offset evaporation losses. Let me make a further statement: If within the Upper territory, say in Colorado, a reservoir is constructed, we will have an average evaporation loss – or if a reservoir was constructed at Flaming Gorge, we will have an evaporation loss. We will have to stand that, and it was thought the power benefits would offset the evaporation loss.

"MR. NORVIEL: I am referring to the half of the water you are to deliver to Mexico.

"MR. CARPENTER: It was thought that all the evaporation losses along the river in such division would be offset by the power benefits, and the Mexican water with it. . . .

"MR. NORVIEL: Well, that is argument, but the question was, is there to be an estimate made of the evaporation losses between Lee's Ferry and the point of diversion.

"MR. CARPENTER: Yes sir, that was thought of, considered and discussed by myself and Mr. Meeker to considerable length. And as I stated at first, it was thought the power benefits in that additional amount of water would more than offset

the evaporation loss.

“MR. NORVIEL: That would perhaps bring another thought in that connection. It is your intention then, that whatever the evaporation loss and loss by percolation of the one-half you propose to deliver to Mexico, shall be made up from the water you turn down in the amount that you have specified or propose to specify.

“MR. CARPENTER: It would presumably.”⁹⁴

Later in the meeting, a second (and equally clear) exchange occurred involving Carpenter, Norviel, and A.P. Davis, Director of the U.S. Reclamation Service.

“MR. NORVIEL: It being necessary to construct a large dam in the lower river to take care of the floods to be delivered to the lower basin as its portion of the waters of the Colorado River, and on occasion perhaps of one, two or three years when no water of consequence may be added, what effect would evaporation have on the quantity of water for use in the reclamation of lands below?

“MR. A.P. DAVIS: It would reduce it and under the compact as proposed by Mr. Carpenter, it would be charged against the lower basin as I understand it.

“MR. NORVIEL: Could you estimate the amount of that loss by evaporation?

“MR. A.P. DAVIS: Yes, it can be estimated and I can give it to you in a few minutes, very roughly. I have a table here of the area of the reservoirs that might be used either at Boulder Canyon or at Glen Canyon. They would not have any very different results. I think I might take Boulder Canyon as a type and with, say, 16,000,000 acre feet which would be a necessary storage to entirely control the river outside of any flood control considerations, that would expose to evaporation, an area of 80,000 acres.

“MR. NORVIEL: And the evaporation per annum would be how many acre feet?

“MR. A.P. DAVIS: I suppose we might assume about six feet. . . . Assuming about one-half of it would be exposed, that would be about 240,000 acre feet per annum.

“MR. CARPENTER: With respect to any reservoirs constructed in the Upper area, there would be evaporation there also, and that would automatically be cared for and deducted under this plan without any figuring.

“MR. A.P. DAVIS: That is true. This compact requires, however, that the lower basin stand the loss from either Lee’s Ferry, or anything below it.”⁹⁵

⁹⁴ Minutes of the Twelfth Meeting of the Colorado River Commission, November 12, 1922, at 79-80.

Notwithstanding the clarity of the exchanges above regarding the evaporation issue, it certainly was not laid to rest at the Twelfth Meeting, emerging next at the Sixteenth Meeting in a fairly heated exchange involving Carpenter, Norviel, A.P. Davis, and Herbert Hoover, the Federal Commissioner. This exchange occurred in the context of a discussion about the scope of the Lower Basin's entitlement (8.2 maf per year proposed) and the associated scope of the Upper Basin's delivery obligation to the Lower Basin (82 maf per consecutive ten-year period proposed). Similar to the earlier exchanges, the upshot appears to have been that the Upper Basin was not obligated to supply treaty water to cover Lower Basin evaporation losses – although Norviel resisted this arrangement and avoided expressly confirming it.

“MR. HOOVER: That's the total they agree to deliver in ten year blocks. Then, just to further the discussion, if the Mexican deduction is to be borne by both sides and we take the maximum Mexican position, it would mean so far as the southern basin is concerned, their needs, as worked out by the Reclamation Service including the projects in view, are 7,450,000 feet, so that 8,200,000 covers that with a comfortable margin.

“MR. A.P. DAVIS: It includes half the water to be delivered to Mexico on the basis of 800,000 acres.

“MR. HOOVER: So the southern basin would be protected as to their end and still have a margin of about 800,000 acre feet.

“MR. NORVIEL: That would be for possible future development.

“MR. HOOVER: Or anything that may happen to you.

“MR. NORVIEL: Delivered at the point of delivery.

“MR. CARPENTER: Delivered at Lee's Ferry; you already have figured your evaporation on the river.

“MR. NORVIEL: Not this one. We figured that for the purpose of calculation.

“MR. CARPENTER: You told us that power was many times more valuable than any other use. We are letting you tear all the fire out of that water clear down to Laguna.

⁹⁵ *Id.* at 87-88.

“MR. NORVIEL: You have more miles above and the fire will already have been torn out.

“MR. CARPENTER: It recovers itself, it’s just as good; our evaporation is already taken out.

“MR. NORVIEL: The evaporation is not taken out of the two million if it is to be delivered to us.

“MR. CARPENTER: If we use it for power above, our evaporation is already out.

“MR. NORVIEL: The evaporation has not been deducted from the million and a half acre feet that you are going to deliver to Mexico. You have to make delivery at the point of delivery, not 600 miles above.

“MR. HOOVER: Mr. Norviel, you have a margin of 750,000 feet to take care of all needs all along. That’s pretty liberal.

“MR. NORVIEL: That makes 8,200,000 acre feet a year minimum.

“MR. HOOVER: That’s the total to be delivered at Lee’s Ferry.”⁹⁶

Although Norviel avoided expressly confirming the Lower Basin’s obligation to fully cover its evaporation losses in the exchange above, he later did so at the Seventeenth Meeting – specifically, in a subsequent discussion about the terms proposed for the Lower Basin’s entitlement and the Upper Basin’s delivery obligation to the Lower Basin noted above. Norviel’s statement came in response to a question from Stephen B. Davis, the New Mexico Commissioner, regarding the latter term (a “fair” delivery guarantee for the Lower Basin). Also marginally involved in the exchange was James G. Scrugham, the Nevada Commissioner.

“MR. S.B. DAVIS: Mr. Norviel, in order that we may know how far apart we are in this matter, would you state what you do consider a fair amount to be guaranteed to you at Lee’s Ferry?

“MR. NORVIEL: I think, inasmuch as our needs are practically even, *we will accept the burden of the losses below Lee’s Ferry*, and take a reconstructed river on an even basis at Lee’s Ferry.

⁹⁶ Minutes of the Sixteenth Meeting of the Colorado River Commission, November 14, 1922, at 83-84. This exchange is discussed in Carlson & Boles, *supra* note 84, at 21.05[2][c].

“MR. S.B. DAVIS: Will you state that in acre feet?

“MR. NORVIEL: Tell me what the acre feet are and I will.

“MR. S.B. DAVIS: You know, I don’t know.

“MR. SCRUGHAM: It would be between eight and nine million a year.

“MR. S.B. DAVIS: Let us have it specifically.

“MR. NORVIEL: I will go back to the proposition made to us yesterday. we will accept eight million two hundred thousand acre feet, on a ten year basis with a four and a half million minimum, while on a five year basis a four million minimum annual flow will be acceptable.”⁹⁷

The Commissioners bickered at length over the terms above – *i.e.*, the make-up of an “equitable” apportionment scheme – throughout the remainder of the Negotiations. Focusing on the prospect of designating Yuma as the delivery point for the Upper Basin’s treaty water, a final exchange relevant to the evaporation issue occurred at the Twentieth Meeting. In a nutshell, Carpenter initially introduced the idea of designating Yuma as the delivery point, the Commissioners briefly discussed doing so, and the idea ultimately was abandoned.⁹⁸ Most notable within the exchange is a statement made by Carpenter about the impact of relocating the delivery point to Yuma on the Upper Basin’s liability for Lower Basin evaporation losses.

“MR CARPENTER: Let me give you an idea to pick at, -- it came into my range of thought and is probably worthless. Suppose it would be stipulated in this compact that the burden of supplying all water that was necessary to pass Yuma for diversion below shall be equally borne by the two divisions, -- yes, I realize that the Imperial Valley is in that division.

“MR. MC CLURE: I think we might accept that, -- all water to be divided below Yuma to be equally divided between the two divisions.

* * * * *

⁹⁷ Minutes of the Seventeenth Meeting of the Colorado River Commission, November 15, 1922, at 100-101 (emphasis added).

⁹⁸ This exchange is discussed in Carlson & Boles, *supra* note 84, at 21.05[2][c].

“MR. CARPENTER: I was thinking of the All-American canal when I made the suggestion. The All-American canal will now be above Yuma. Of course, at present the amount passing Yuma would have the effect of imposing an additional burden at once at Lee Ferry that in our minds we had already cared for at the point, which would not be satisfactory I know to, --

“MR. HOOVER: That would be putting on the upper states half of the burden.

“MR. CARPENTER: Which we feel have already provided for.”

Revealing exchanges like those quoted above do not appear in subsequent portions of the Negotiation Minutes. However, the Minutes do track the evolution of Article III(c) from the draft of Article III introduced by Delph Carpenter at the Eleventh Meeting to the final edit made on the provision at the Twenty-Fifth Meeting. Three drafts of Article III(c) introduced at the Nineteenth and Twentieth Meetings are worth noting relevant to the evaporation issue:

- Nineteenth Meeting:
 - “The contracting states agree that the burden of supplying water of the Colorado River System from the United States of America to the Republic of Mexico in fulfillment of obligations, if any, which may exist, or may be determined to exist between the two Nations, shall be equally apportioned between and equally borne by the Upper Division and Lower Division; and the States of the Upper Division shall deliver at Lee Ferry a quantity of water over and above that provided in Article III *which will enable the fulfillment of one-half of the amount required to satisfy such delivery.*”⁹⁹
 - “If in the adjustment of international relations, the Republic of Mexico shall hereafter establish any rights to waters from the Colorado River System, the burden of supplying such water shall be equally apportioned between and equally borne by the Upper Basin and Lower Basin; and the States of the Upper Basin shall deliver at Lee Ferry a quantity of water over and above that provided in Article III *which will enable the fulfillment of one-half of the amount required to satisfy such delivery.*”¹⁰⁰
- Twentieth Meeting: “The burden of supplying water of the Colorado River System from the United States of America to the United States of Mexico in fulfillment of obligations, if any, which may exist, or may be determined to exist, by the two

⁹⁹ Minutes of the Nineteenth Meeting of the Colorado River Commission, November 19, 1922, at 39 (emphasis added).

¹⁰⁰ *Id.* at 49-50 (emphasis added).

governments shall be equally apportioned between and equally borne by the upper basin and lower basin and the states of the upper basin shall deliver at Lee Ferry a quantity of water over and above that provided in Art. IIIx, *which will enable the fulfillment of one half of the amount required to satisfy such delivery.*”¹⁰¹

The italicized clauses in these drafts of Article III(c) *suggest* a potentially different approach to the sub-basins’ contributions to Mexico’s treaty entitlement than that supported by the text of the final version of Article III(c). Common features among these draft provisions and the final version of Article III(c) are (1) the call for equal sharing of the Mexican treaty burden between the sub-basins (or “Divisions”) and (2) the designation of Lee Ferry as the delivery point for the Upper Basin’s (or “Division’s”) one-half contribution of treaty water. A salient distinction, however, is the draft provisions’ requirement that the Upper Basin’s contribution consist of a quantity of water that will “enable the fulfillment” of one-half of the amount required to satisfy Mexico’s treaty entitlement. This text reasonably might be construed as supporting the Lower Basin’s position: “Enabl[ing] the fulfillment” mandated delivery of a quantity of water that covered one-half of Mexico’s treaty entitlement plus carriage water required to offset evaporation losses between Lee Ferry and the Mexican points of delivery.

The potential support provided to the Lower Basin’s position by the “enable the fulfillment” clause went by the wayside with the introduction of a new draft of Article III(c) at the Twenty-Second Meeting. This new draft included the terms “surplus” and “deficiency” for the first time and called for assessments related to those terms that closely resemble the corresponding assessments contained in the final version of Article III(c).

“If, as a matter of international comity, the United States of America shall hereafter recognize in the United States of Mexico any right to the use of the waters

¹⁰¹ Minutes of the Twentieth Meeting of the Colorado River Commission, November 19, 1922, at 63-64 (emphasis added). The Commissioners discussed the Mexican treaty obligation at length throughout this meeting. See *id.* at 53-70. A provision similar to the one quoted here was introduced earlier in the meeting – see *id.* at 53-54 – and an almost identical version of it was set out as Article VII in a draft version of the Compact appended to the meeting minutes. See *id.* at 94.

of the Colorado River System, such waters shall first be supplied from the *surplus* water after the above amounts have been satisfied; and if such *surplus* water shall prove insufficient for this purpose, then *the deficiency shall be equally apportioned between and equally borne by the upper basin and the lower basin, and the states of the upper division shall deliver at Lees Ferry one half of the deficiency* so recognized in addition to that provided in paragraph (b).¹⁰²

All told, while undoubtedly involving a degree of speculation, it is possible that the deletion of the “enable the fulfillment” clause from the preceding drafts of Article III(c) stemmed from concerns about that clause being construed in accordance with the Lower Basin’s position.

Bringing this survey of the Negotiation Minutes to a close, the Commissioners amended the draft of Article III(c) introduced at the Twenty-Second Meeting during the Twenty-Fourth and Twenty-Fifth Meetings.¹⁰³ Neither amendment implicated the evaporation issue. The Compact subsequently was adopted in its entirety at the Twenty-Seventh Meeting.¹⁰⁴

Conclusion

Virtually all of the materials covered above seem to favor the Upper Basin’s position on the evaporation issue. Textual support in Article III(c) comes from its designation of “Lee Ferry” as the delivery point for the Upper Basin’s share of treaty water and its non-inclusion of evaporation losses in the processes for determining “surplus” and “deficiency” conditions. The contextual evidence is wishy-washy. It is questionable whether either sub-basin could gain any real traction by relying on the provisions emphasizing the generally sub-basin-based structure of the apportionment scheme or those illustrating equity as the core norm underlying that scheme.

¹⁰² Minutes of the Twenty-Second Meeting of the Colorado River Commission, November 22, 1922, at 138 (emphasis added).

¹⁰³ Minutes of the Twenty-Fourth Meeting of the Colorado River Commission, November 23, 1922, at 239; Minutes of the Twenty-Fifth Meeting of the Colorado River Commission, November 23, 1922, at 255-56, 260. The former amendment involved integrating the term “aggregate” into Article III(c) relevant to the surplus issue. See earlier discussion of the surplus issue provides a discussion of the significance of this amendment.

¹⁰⁴ Minutes of the Twenty-Seventh Meeting of the Colorado River Commission, November 24, 1922, at 305.

Perhaps most probative are the exchanges among the Commissioners on this issue, and (to a lesser extent) the deletion of the “enable the fulfillment” clause in drafts of Article III(c), tracked in the Negotiation Minutes. Overall, the Lower Basin appears to have little to hang its hat on in this realm – an equity-based argument foreseeably would not go very far.

Delivery Issue

Turning now to the delivery issue, David Getches succinctly summarized the nature of this issue in his seminal article, *Competing Demands for the Colorado River*:

“A second question is whether the Mexican Treaty obligation requires annual deliveries from the Upper Basin. The Compact requires an aggregate ten-year flow at Lee Ferry, . . . But the Treaty promises Mexico an annual delivery. In years when more than 7,500,000 acre-feet are delivered at Lee Ferry, the Upper Basin gets credit toward its ten-year, 75,000,000 acre-feet delivery requirement. But does the Upper Basin get credit toward future Mexican obligations for excess deliveries at Lee Ferry if the water could physically be stored in the Lower Basin or was actually consumed by the Lower Basin”¹⁰⁵

This summary of the issue highlights the contrary positions of the Upper and Lower Basins.¹⁰⁶ The Lower Basin contends Article III(c) requires annual deliveries of Mexican treaty water and therefore the Upper Basin cannot receive credit in a given year for deliveries exceeding the obligatory one-half contribution made in prior years. In short, Article III(c) does not permit carryover credit for treaty water. The Upper Basin asserts to the contrary: Article III(c) allows for carryover credit if the excess water delivered by the Upper Basin in a given year can be stored and used by the Lower Basin to supply Mexico’s treaty entitlement.

The vast majority of textual, contextual, and historical evidence surveyed below supports

¹⁰⁵ Getches, *supra* note 84, at 422.

¹⁰⁶ In addition to Getches’s seminal piece, useful scholarship identifying and/or discussing the delivery issue includes Schiffer et al., *supra* note 84, at 222; Clyde, *supra* note 84, at 112-13, 119; Meyers, *supra* note 84, at 17, 25.

the Lower Basin’s position on this issue. Considerations of equity at the contextual stage of the analysis, however, bolster the Upper Basin’s position to a limited extent. On balance, it seems likely the Supreme Court would hold in favor of the Lower Basin if the issue were presented.

Article III(c)’s Text

Article III(c) seems to expressly (yet indirectly) require annual deliveries of treaty water:

“If, as a matter of international comity, the United States of America shall hereafter recognize in the United States of Mexico any right to the use of any waters of the Colorado River System, such waters shall be supplied first from the waters which are surplus over and above the aggregate of *the quantities specified in paragraphs (a) and (b)*; and if such surplus shall prove insufficient for this purpose, then, the burden of such deficiency shall be equally borne by the Upper Basin and the Lower Basin, and whenever necessary the States of the Upper Division shall deliver at Lee Ferry water to supply one-half of the deficiency recognized in addition to that provided in paragraph (d).” (Emphasis added.)

The key to discerning the apparently annual nature of the sub-basins’ treaty water obligations in Article III(c) is the reference to Articles III(a) and (b). These provisions allocate *annual* entitlements to the Upper and Lower Basins. Article III(a) entitles each of the sub-basins to “the exclusive beneficial consumptive use of 7,500,000 acre-feet of water per annum” from the Colorado River System. And Article III(b) authorizes the Lower Basin “to increase its beneficial consumptive use of [Colorado River System water] by one-million acre-feet per annum.”

Article III(c) relies on the annual entitlements in Articles III(a) and (b) as the basis for assessing the existence of “surplus” or “deficiency” conditions – and, in turn, the scope of the sub-basins’ respective delivery obligations to Mexico – *in any given year*. “Surplus” conditions exist if there is water in the Colorado River System beyond the 16.0 maf apportioned annually to

the Upper and Lower Basins by Articles III(a) and (b).¹⁰⁷ The sub-basins must use this surplus water (if any) as the first source of supply for Mexico’s treaty entitlement. A “deficiency” exists if this surplus water falls short of satisfying the treaty entitlement. In this condition, the sub-basins must equally bear the burden of supplying treaty water toward the deficiency.

Thus the gist of Article III(c)’s text with regard to the delivery issue is twofold: (1) the scope of the sub-basins’ respective delivery obligations to Mexico is determined annually based upon the existence of surplus or deficiency conditions and (2) the process by which these annual determinations are made does not entail consideration of past deliveries of treaty water that exceeded the amount required by Article III(c) for the relevant year (*e.g.*, .75 maf if no surplus water existed). In short, Article III(c)’s text contains no indication that the Upper Basin is entitled to receive carryover credit for past deliveries of excess treaty water.

Contextual Provisions

Two provisions within the context surrounding Article III(c) – specifically, one adjacent provision (Article III(d)) and one broad category of provisions (equity-related provisions) – shed additional light on the delivery issue.¹⁰⁸ Article III(d) dovetails with the textual analysis above and supports the Lower Basin’s position. In contrast, the equity-related provisions arguably provide the strongest (albeit limited) support for the Upper Basin’s position.

Article III(d) evidences the ability of the Commissioners to provide for the Upper Basin’s

¹⁰⁷ The definition of “surplus” in Article III(c) is addressed at length above .

¹⁰⁸ Article III(e) also *potentially* bears on the delivery issue, prohibiting the Upper Basin from withholding the delivery of Colorado River System water into the Lower Basin when such water “cannot reasonably be applied to domestic and agricultural uses.” An unresolved question appears to exist regarding whether deliveries of this Article III(e) water can be counted toward the Upper Basin’s delivery obligations to Mexico under Article III(c). Are Article III(e) waters a distinct class of waters such that they cannot simultaneously constitute “surplus” waters or waters contributed toward a “deficiency” under Article III(c)? If so, then no Article III(c)-related carryover credits can be predicated on the delivery of Article III(e) waters, even assuming Article III(c) allows for such credits.

receiving credit in a given year for obligatory deliveries of water made in prior years. The provision prohibits the Upper Basin from causing the flow of the Colorado River at Lee Ferry from being “depleted below an aggregate of 75,000,000 acre-feet for any period of ten consecutive years reckoned in progressive series.” Construing this text as imposing a delivery requirement (*i.e.*, rather than a duty not to deplete), this provision allows for fluctuating annual deliveries from the Upper Basin to the Lower Basin, so long as an aggregate of 75 maf passes Lee Ferry every successive ten-year period. Article III(d)’s delivery obligation is decadal in nature. Deliveries in excess of its corresponding annualized amount (7.5 maf) in a given year count toward deliveries made in prior and subsequent years within the same decade.

Although Article III(d) demonstrates their capacity to do so, the Commissioners clearly did not provide for a decadal delivery obligation in Article III(c) by which the scope of the sub-basins’ annual delivery obligations to Mexico would be permitted to fluctuate according to past delivery amounts. Instead, as discussed above, Article III(c) prescribes a process for determining the scope of the sub-basins’ annual delivery obligations that does *not* entail considering past deliveries. Awarding carryover credit to the Upper Basin for excess deliveries does not comport with the Commissioners’ intent as manifest in the distinct terms of Articles III(c) and (d).

Yet “it only seems fair to credit the Upper Basin for excess deliveries which the Lower Basin can store and use to supply Mexico.”¹⁰⁹ Charles Meyers identified this equity-based interpretation of Article III(c) in his landmark article, *The Colorado River*. As noted above in the contextual analysis of the evaporation issue, “equity” is the norm around which the Compact’s apportionment scheme is framed, and a host of provisions illustrate this point.¹¹⁰

¹⁰⁹ Meyers, *supra* note 84, at 25. This equity-based perspective likewise is reflected in Getches’s articulation of the delivery issue quoted above from *Competing Demands for the Colorado River*.

Building on this foundation, if the Lower Basin is capable of storing and using excess water delivered by the Upper Basin for Mexico in a given year, then it seems fair to credit such excess deliveries toward the Upper Basin's Article III(c) delivery obligations in subsequent years.

Perhaps the Supreme Court might find this equity-based interpretation compelling if the issue were presented to it. The rub is that it runs contrary to Article III(c)'s plain text (and the distinct but illuminating text of Article III(d)). Meyers conceded this point after making the statement quoted above: "[A]rticle III(c) seems to define surplus and deficiency by reference to [A]rticles III(a) and (b), in which the water accounting is on an annual basis."¹¹¹ The case for an equity-based interpretation of Article III(c) would be stronger if only the text were ambiguous.

Negotiation Minutes

At least two types of events tracked in the Negotiation Minutes are potentially relevant to the evaporation issue (and other Article III(c) issues): (1) exchanges among the Commissioners concerning the issue and (2) significant steps in the evolution (drafting history) of Article III(c) bearing on the issue. We have not come across any exchanges among the Commissioners similar to those noted above for the evaporation issue – *i.e.*, exchanges expressly addressing whether Article III(c) (or a predecessor thereof) permits the Upper Basin to receive carryover credit toward its Mexican delivery obligation for past deliveries of excess treaty water. The drafting history of Article III(c) has proven slightly more helpful. It does not document the

¹¹⁰ See, e.g., Article I (identifying equitable apportionment as purpose of Compact); Articles III(a) and (b) (allocating almost equal entitlements of 7.5 maf and 8.5 maf to Upper and Lower Basins respectively); Article III(c) (requiring Upper and Lower Basins to equally bear the burden of contributing water to Mexico's entitlement in deficiency conditions); Article III(f) (providing for further equitable apportionment of initially unapportioned Colorado River System waters); Article III(g) (defining duty of public officials engaged in further apportionment per Article III(f) as "to divide and apportion equitably" Colorado River System water between Upper and Lower Basins).

¹¹¹ Meyers, *supra* note 84, at 25.

deletion of any draft clause within Article III(c) that would have authorized the Upper Basin to receive carryover credit for excess deliveries. But it does reveal how the predecessors of Article III(c) – like the final version – consistently required annual deliveries of Mexican treaty water.

The annual nature of the Upper Basin’s delivery obligation under Article III(c) can be traced (yet again) to the draft Compact introduced by Delph Carpenter, the Colorado Commissioner, at the Eleventh Meeting. Article III of this draft Compact plainly mandated annual deliveries to Mexico from the sub-basins (“Divisions”).

“[Article III:] The High Contracting Parties agree that the duty and burden of supplying any waters from the flow of the Colorado River within the United States of America to the Republic of Mexico . . . shall be equally apportioned between and equally borne by the Upper Division and the Lower Division of the Colorado River within the United States of America; that the *annual delivery* at Lee’s Ferry, by the States of the Upper Division, of a quantity of water equivalent to one-half the *annual amount* required to satisfy any such international obligations shall be a complete fulfillment of the provisions of this Article by said States; and that the States of the Lower Division shall *contribute annually* a like amount of water from those waters of the river annually to pass Lee’s Ferry for the Lower Division, as provided in Paragraph two (2) of Article II of this compact, and from the flow of tributaries entering the river below Lee’s Ferry, and further, shall cause the water contributed by both divisions to be delivered to the Republic of Mexico in conformity with any such treaty obligations.”¹¹²

After Carpenter’s submission of his draft Compact at the Eleventh Meeting, several draft provisions were introduced at the Nineteenth and Twentieth Meetings that resembled the initial draft of Article III in their requiring annual deliveries from the Upper Basin (or “Division”) to satisfy Mexico’s entitlement. The annual nature of these obligations was reflected in a clause common to each of these draft provisions: “The States of the Upper Division shall deliver at Lee Ferry a quantity of water over and above that provided in Article III which will enable the fulfillment of one-half of the amount required to satisfy such delivery.”¹¹³ “Such delivery”

¹¹² Minutes of the Eleventh Meeting of the Colorado River Commission, November 11, 1922, at 24 (emphasis added).

referred to the sub-basins’ (or “Divisions”) delivery obligations to Mexico. “Article III” referred to an evolving draft of that Article that – contrasting the final version of Article III(d) – required the Upper Basin to *annually* deliver a prescribed amount of water to the Lower Basin. In short, the clause’s incorporation of the annual delivery obligation in the draft of Article III suggests that the Upper Basin’s delivery obligation to Mexico likewise was an annual one.¹¹⁴

The next relevant event occurred at the Twenty-Second Meeting with the introduction of the first draft of Article III(c) setting forth the terms “surplus” and “deficiency” and the related process for determining the sub-basins’ annual delivery obligations to Mexico.

“If, as a matter of international comity, the United States of America shall hereafter recognize in the United States of Mexico any right to the use of the waters of the Colorado River System, such waters shall first be supplied from the surplus water after the above amounts have been satisfied; and if such surplus water shall prove insufficient for this purpose, then the deficiency shall be equally apportioned between and equally borne by the upper basin and the lower basin, and the states of the upper division shall deliver at Lees Ferry one half of the deficiency so recognized in addition to that provided in paragraph (b).”¹¹⁵

The “surplus” water clause contained in this provision was distinct from its final version, omitting the term “aggregate” and an express reference to Articles III(a) and (b) – *i.e.*, “such waters shall first be supplied from the surplus water after the above amounts have been satisfied.” Nonetheless, the “above amounts” incorporated into this clause were the annual entitlements of the Upper and Lower Basins – 7.5 maf and 8.5 maf, respectively – specified in

¹¹³ Minutes of the Nineteenth Meeting of the Colorado River Commission, November 19, 1922, at 39. *See also id.* at 49-50 (identifying draft provision containing almost identical clause); Minutes of the Twentieth Meeting of the Colorado River Commission, November 19, 1922, at 63-64 (same).

¹¹⁴ *See, e.g.*, Minutes of the Nineteenth Meeting of the Colorado River Commission, November 19, 1922, at 19 (identifying Upper Basin Commissioners’ understanding that Mexican delivery obligation under draft provision was in addition to Upper Basin’s annual delivery obligation to Lower Basin under referenced draft of Article III). Notably, the Commissioners also discussed the Upper Basin’s decadal delivery obligation to the Lower Basin under the evolving draft of Article III. However, we believe the reference to Article III in the draft provisions (quoted clause) was in relation to the annual delivery obligation rather than the decadal one.

¹¹⁵ Minutes of the Twenty-Second Meeting of the Colorado River Commission, November 22, 1922, at 138 (emphasis added).

drafts of Articles III(a) and (b).¹¹⁶ Mirroring the final version of Article III(c), therefore, this provision (1) relied on the sub-basins' entitlements to determine the existence of surplus or deficiency conditions on an annual basis; (2) hinged the scope of the sub-basins' annual delivery obligations to Mexico on the existence of surplus or deficiency conditions; and (3) omitted any mention of carryover credits for past deliveries of excess treaty water as a factor in the foregoing process for determining the scope of the sub-basins' annual delivery obligations.

Little is left to tell about the Negotiations in relation to the delivery issue after the Twenty-Second Meeting. The draft of Article III(c) introduced at that Meeting was amended at the Twenty-Fourth and Twenty-Fifth Meetings¹¹⁷ – neither amendment is relevant here – and the Commissioners later adopted the Compact in its entirety at the Twenty-Seventh Meeting.¹¹⁸

Conclusion

As noted by Meyers, a glimmer of hope exists for the Upper Basin on this issue stemming from the equity-based interpretation of Article III(c). On balance, however, this glimmer likely would be snuffed out by the materials favoring the Lower Basin's position, particularly the plain text of Article III(c) and the enlightening, distinct text of Article III(d). The latter provision shows the Commissioners were capable of crafting a delivery requirement that allows for fluctuating annual deliveries based on past delivery amounts. Article III(c)'s text outlines a much different approach – one that entails annual deliveries being calculated based solely on annual conditions. The drafting history of Article III(c) sheds some light on the

¹¹⁶ *Id.* at 136-37.

¹¹⁷ Minutes of the Twenty-Fourth Meeting of the Colorado River Commission, November 23, 1922, at 239; Minutes of the Twenty-Fifth Meeting of the Colorado River Commission, November 23, 1922, at 255-56, 260.

¹¹⁸ Minutes of the Twenty-Seventh Meeting of the Colorado River Commission, November 24, 1922, at 305.

evolution of this approach. Again, though, Articles III(c) and (d) alone may be dispositive.