NO. 65, ORIGINAL

* * *

IN THE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1975

* * *

THE STATE OF TEXAS,

Plaintiff

V.

THE STATE OF NEW MEXICO,

Defendant

* * *

OBJECTIONS TO THE REPORT OF THE SPECIAL MASTER ON THE OBLIGATION OF NEW MEXICO TO TEXAS UNDER THE PECOS RIVER COMPACT

* * *

Respectfully submitted,

MARK WHITE
Attorney General of Texas

JOHN W. FAINTER, JR.
First Assistant

TED L. HARTLEY
Executive Assistant

DOUGLAS G. CAROOM
Assistant Attorney General
Chief, Environmental Protection Division

Attorneys for Plaintiff, The State of Texas

P.O. Box 12548, Capitol Station
Austin, Texas 78711

Of Counsel:

FRANK R. BOOTH
Booth, Lloyd & Simmons
302 San Jacinto Bldg.
Austin, Texas 78701

Attorneys for Red Bluff Water Power Control District

TABLE OF CONTENTS

IN THE

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1975

NO. 65, ORIGINAL

THE STATE OF TEXAS,

Plaintiff

V.

THE STATE OF NEW MEXICO,

Defendant

* * *

OBJECTIONS TO THE REPORT OF THE SPECIAL MASTER ON THE OBLIGATION OF NEW MEXICO TO TEXAS UNDER THE PECOS RIVER COMPACT

* * *

I. OBJECTION

Texas objects to the Master's Conclusion that the 1947 Condition is something other than that situation defined and described in the Report of the Engineering Advisory Committee.

II. STATEMENT OF THE CASE

The Report of the Special Master has, for the most part, fairly stated the nature of this case. In four respects, however, some elaboration or correction of the Master's statement is necessary. The Master's treatment of (a) the engineering methods and techniques underlying the Compact, (b) the interrelation between the Report of the Engineering Advisory Committee and Compact negotiations, and (c) the administrative history of the Pecos River Commission all require further clarification or explanation. These will be treated below. Additionally,

the Master's description of the Texas position regarding the 1947 Condition mischaracterizes that position; this will be dealt with in the Argument portion of this brief.

A. Engineering Methods and Techniques

The 1947 Condition is defined by the Compact as "that situation described and defined in the Report of the Engineering Advisory Committee." Examination of that report shows that "1947 Condition" is the name of a river routing study performed by the committee. Additionally Article VI of the Compact provides that the "inflow-outflow method" shall be utilized for making administrative computations under the Compact.

A working knowledge of the fundamentals of a "river routing" study and the "inflow-outflow method" is essential to understanding the apportionment of water under the Pecos River Compact and the administration of that apportionment.

(1) "Routing Study"

As the Master indicates, a routing study is a mathematical model of the river which numerically presents the flow of the river at given points and times under assumed conditions.[1] By this technique engineers are able to depict how the river would operate under various sets of conditions. As described by New Mexico witness Erickson,[2] the purpose of a routing study is to

---

[1]The term "River Routing Study" occasionally gives rise to some confusion; it has nothing to do with changing the location or route of the river. It is synonymous with the term "River Operation Study" and refers to a simple arithmetic model of the River's performance under hypothetical or assumed conditions. Hydrologists routinely perform such studies, e.g., prior to construction of a new reservoir to determine the effectiveness of the reservoir and its impact on water availability or flooding.

[2]Tr. 894-896.

superimpose a set of conditions on the water supply in a river basin. First the water supply available under "virgin conditions," conditions prior to development of any uses on the river, is ascertained. Then the conditions which the routing study is intended to depict are superimposed upon that water supply. In the case of the 1947 Condition routing study, the conditions imposed upon the virgin water supply were those approximating conditions on the river during Compact negotiations.

The process is, perhaps, most easily understood by use of a specific example. Referring to the 1947 Condition routing summary reproduced in Appendix A of the Master's Report, the first column is inflow into Alamagordo Reservoir. It shows the natural or virgin inflow into the reservoir each year, as it has been influenced by 1947 Condition uses above the reservoir. Considering the year 1905, for example, it shows the inflow which would have entered the reservoir that year if the reservoir had been in existence then. It is based upon streamflow records from the year 1905, adjusted to reflect upstream 1947 Condition uses. The second column shows the irrigation release from the reservoir. It is based upon the irrigated acreage for the Ft. Sumner and Carlsbad irrigation projects, assumed to be existing as part of the 1947 Condition. The irrigation release varies from year to year because the demand for irrigation water varies each year according to rainfall. Thus, the 1947 Condition acreage is assumed to exist in 1905, the precipitation occurring in 1905 is considered, and the water necessary to irrigate that acreage considering the amount of 1905 rainfall is calculated. Similarly, based on precipitation records and the amount of water which would have been in Alamagordo Reservoir in 1905, the water which would have been lost to evaporation in 1905 is calculated. The fourth value, "spills" from Alamagordo Reservoir, represents the water entering the reservoir which exceeds available storage capacity. This column shows the water which

would have spilled from the reservoir in 1905, given the 1905 inflow, irrigation releases and evaporation. The river routing study thus presents a picture of what would have occurred in 1905 if the 1947 Condition developments were in place at that time, i.e., if Alamagordo Reservoir had been in place and if the 1947 Condition acreage of the Ft. Sumner and Carlsbad projects were being irrigated. A similar process is repeated for the entire length of the river. Reservoirs, uses, losses, and groundwater contribution all reflect the 1947 Condition, while the surface water supply each year depicts that which was actually available.[3]

The routing study, performed in this manner for the entire river, over the entire period of record, shows how the river would have responded if the 1947 conditions of development had been in place throughout that period. This routing study serves as the standard for apportionment of water under the Pecos River Compact. It amounts to a sampling technique, using the entire period of record as a sample base. It depicts the amount of water which would be available at the state line, under conditions of development approximating those existing during negotiations, for the entire range of natural water supply conditions that existed during the historic period for which records were available. For any natural condition of water availability existing

[3]It is important to note, if one is studying the "Summary of Operations" provided in Appendix A of the Master's Report, that it is only an annual summary. The actual routing was accomplished using monthly routings of the flows. Consequently the values shown in the annual summary do not, and should not, always add up to an arithmetic balance. Computation of reservoir spills present a clear example of this phenomenon. If, for example, a major amount of flood inflow reached a reservoir early in the year, prior to the irrigation releases and prior to much of the reservoir's annual evaporation loss, a spill could easily occur that month while the annual values might show a total inflow less than the total of irrigation releases and evaporation. Thus, the annual summary might show a spill for no apparent reason.

in a post Compact year, so long as it is within the range of natural water supply conditions considered by the study, reference to the study will disclose the amount of water which would have reached the state line under 1947 conditions.

(2) "Inflow-Outflow Method"

For the routing study to serve as a standard in the inflow-outflow method it is first necessary to establish a correlation or relationship between the inflow occurring during the period of the routing study and the outflow produced by the routing. This was done in the Inflow-Outflow Manual;[4] the resulting correlation is shown on page 154 of S.D. 109. In developing this correlation the engineers plotted inflow (or the water available) each year against the outflow (or the water which reached the state line under the routing study conditions) during that same year.[5] In order to minimize variations attributable to individual years, these values were plotted on a three-year running average. The correlation, thus, shows how much water of a given inflow can be expected to reach the state line under 1947 Conditions. This inflow-outflow relationship serves as a standard by which post Compact water deliveries may be evaluated to ascertain whether or not a quantity of water equivalent to that available under the 1947 Condition has been made available.

---

[4]S.D. 109, pp. 145-172.

[5]This is an oversimplification. Rather than using the inflow into Alamagordo Reservoir as a component of the total inflow, the Inflow-Outflow Manual uses the outflow from the reservoir. This results in changing the timing of this inflow component slightly and reduces it by the amount of reservoir evaporation losses. It is not, however, significant to understanding the inflow-outflow method, as described above.

As described in the Inflow-Outflow Manual, post Compact deliveries are evaluated each year as follows: (a) the actual inflow into the river during a post Compact year is calculated; (b) the gaged flow at the state line for the same year is obtained; (c) both values are calculated for a three-year running average, ending with the current year; (d) the three-year average inflow is plotted on the inflow-outflow correlation curve to obtain the comparable outflow under the 1947 Condition; and (e) the 1947 Condition average outflow is compared to the recorded average outflow for the post Compact years being considered. In this manner one may ascertain whether the state line flow under consideration is more or less than the amount of water which reached the state line under the 1947 Condition routing study for the same inflow value.

This is the first step in accounting for water deliveries under the Compact. An isolated instance of overdelivery or underdelivery is not particularly significant; natural variations in water availability and use patterns on the river might easily account for a single departure. Only when a pattern of overdeliveries or underdeliveries becomes established does the departure assume significance.[6] Even after a pattern of departures from the established relationship develops, one final step remains to determine New Mexico's compliance or noncompliance with the Compact's requirements. It must be determined that the departure is caused by man's activities rather than natural causes. Under Article III(a) New Mexico's obligation only extends to departures caused by man's activities; Texas bears the burden of underdeliveries due to increased natural losses.

The foregoing discussion is intended to clarify the difference between the routing study and the inflow-outflow method. The former depicts the performance of

[6]S.D. 109, pp. 149 & 156.

the river under a set of circumstances which did not actually exist on the river during the historic period of record. The latter is a technique or method by which actual deliveries during the post Compact period may be compared to water availability depicted by the routing study.[7]

B. Compact Negotiations and the Report of the Engineering Advisory Committee

The Master's Report[8] accurately describes the proposals and courterproposals leading up to the agreement to base the Compact upon the 1947 Condition. However, because the 1947 Condition is defined by the Compact in terms of the engineering reports which were performed contemporaneously with the Compact negotiations, it is important to understand how the engineering reports and Compact negotiations fit together.

The phase of Compact negotiations which led to adoption of the Compact began with the May 28, 1947 meeting. At that meeting the Engineering Advisory Committee was constituted under the leadership of Royce T. Tipton and was directed to undertake a program of engineering studies of the Pecos River. The phase of study resulted in the initial "Report of the Engineering Advisory Committee." It was transmitted to the Commission in January of 1948 and was formally presented and discussed at the March 10, 1948 meeting. The initial report consisted of three parts: the Synopsis;[9] the Report itself;[10] and the Appendix.[11] The original

---

[7]The Master's Report frequently confuses the two, e.g., pp. 47 & 49 where the Master suggests that the Inflow-Outflow Manual gives directions for performing the routing study.

[8]pp. 16-22.

[9]S.D. 109, pp. xxv-xxxiv.

[10]S.D. 109, pp. 1-27.

[11]S.D. 109, pp. 28-72.

report contained a discussion of six river routing, or river operation, studies. The routing studies are presented and briefly discussed in the report itself. The Synopsis is more analytical in nature; it discusses the studies briefly and presents the conclusions the engineers were able to draw from these studies and a comparison of them. The Appendix describes in some detail how the studies were performed and the basis for the various values used in the routings. Among the six original routings were both the "Proposed A" and "1947 Condition" routings.

During the March 1948 meeting, as described in the Master's Report, Texas initially proposed a compact based upon the "Proposed A" routing study. The New Mexico counter-proposal suggested a compact based upon a modified 1947 Condition--one which would allow an anticipated depletion of the groundwater contribution, "base inflow," to the river due to groundwater pumping taking place at that time. The Engineering Advisory Committee was directed to evaluate the New Mexico and Texas proposals, and particularly the effects of current groundwater pumping on base inflow which had not yet made themselves felt, but would do so in future years.

The Committee did so and produced the "Supplement" to the Report of the Engineering Advisory Committee, which is found at pages 133-144, S.D. 109. This report includes three additional river routing studies. The "1947-A Condition" routing study was performed to reflect the New Mexico counter-proposal of March, 1948. The Supplement was available for the Commission's next meeting, on November 8, 1948. It concluded, in part, that then-existing groundwater pumping could ultimately cause the groundwater contribution between Roswell and Artesia to disappear entirely.

At this meeting, on November 11, 1948, Texas

rejected the New Mexico proposal. Subsequently, on November 13, 1948, New Mexico proposed that a compact be based on the "1947 Condition."[12] Texas accepted the proposal with minor agreed modifications. A nine-point agreement resulted.[13] The first point corresponds to Article III(a) of the Compact and is reproduced at page 20 of the Master's Report.

Following the Commission's November, 1948 meeting, between Thanksgiving and December 3, 1948, both the Engineering Advisory Committee and a Drafting Committee met. The Drafting Committee met and wrote the Compact, based upon the nine-point agreement reached during the November Commission meeting. During that same time the engineers met and drafted the Inflow-Outflow Manual.

The Master's definition of the 1947 Condition has modified the Compact definition of that term to literally remove any reference to the Report of the Engineering Advisory Committee from the definition. The Compact, on the other hand, defined the 1947 Condition exclusively in terms of the Report of the Engineering Advisory Committee. Much of the Master's rationale in disregarding the report appears to be based upon perceived weaknesses in the report. Many of New Mexico's arguments against the Compact's definition of the 1947 Condition are based upon a portion of the Commission's administrative history aimed at correcting certain errors in the report's Inflow-Outflow Manual. All parties agree that the Inflow-Outflow Manual contains certain errors and needs to be revised.

Texas has presented this discussion of the various portions of the Report of the Engineering Advisory Committee to show the role that each played in Compact

---

[12]Master's Report, p. 20.

[13]S.D. 109, p. 97.

negotiations. While Article II(f) defines the Report of the Engineering Advisory Committee to include the original report, supplement, and Inflow-Outflow Manual, together with the back-up data and minutes of the final Commission meeting, it is apparent that when the original agreement upon the 1947 Condition was reached, as one of the nine points which formed the basis for the Compact, the negotiators from Texas and New Mexico had only the original report to base that agreement upon. It is that original report which defines the 1947 Condition. Flaws in the Inflow-Outflow Manual, which do exist, do not impair the Compact's definition of the 1947 Condition because that definition is found in the original engineering report submitted in March of 1948. The Inflow-Outflow Manual, while included in the Article II(f) definition of the "Report of the Engineering Advisory Committee," is intended for post Compact accounting of water deliveries. That it has some deficiencies is, at least, understandable if one considers the time constraints within which the engineers were working when they put it together.

C. The Administrative History of the Pecos River Commission.

Because at least one of New Mexico's objections to the Master's decision is based upon the administrative history of the Pecos River Commission, a clear understanding of that history is essential. Although the Master's Report does not deal extensively with that administrative history, two of its descriptions of commission action are misleading. At page 27, discussing the July 1957 meeting of the Commission, the Master states that the Commission's Engineering Committee had been restudying the 1947 Condition. At page 44, the Master describes the 1949-1961 period as "twelve years of action without a result." In both instances the Master has failed to recognize the significance of the year 1957 as a turning point in the direction of the engineering studies in which the

Commission was engaged.

While New Mexico's arguments based on administrative history will be addressed on their merits in our Reply Brief, the misimpression left by the Master's Report should be corrected at this stage.

Until 1957 the Commission was not engaged in a restudy of the 1947 Condition or the description of that condition contained in the Report of the Engineering Advisory Committee. After 1957 the Commission, unquestionably, did engage in such a study--producing the Review of Basic Data's routing study describing the condition anew. Prior to 1957, however, the Commission was simply conducting studies suggested by the Inflow-Outflow Manual and attempting to remedy some deficiencies in the manual.

As described in the Master's Report of July 6, 1977,[14] the Inflow-Outflow Manual presents a series of graphs and curves for use in Compact administration. Two of the curves, Plate No. 1 and Plate No. 2,[15] are based upon 37 years of data and are presented for use in Compact administration. Six other curves, Plates No. 5-10,[16] are based upon only 10 years of data and are presented on a tentative basis. With respect to these six curves, the Inflow-Outflow Manual states:

> The committee is submitting as part of this report for the above reaches of river the inflow-outflow relationship in the form of graphs for 3-year-successive means for the period 1938 through 1947. While in general the correlation of the points on these graphs is sufficiently good

[14]pp. 19-22.

[15]S.D. 109, pp. 153 & 154, respectively.

[16]S.D. 109, pp. 160-166.

> to permit the establishment of correlation curves, yet the committee believes that more years of streamflow record should be available before such curves are established.
>
> S.D. 109, p. 151.

One of the tasks the Commission was engaged in prior to 1957 was the collection of additional data and the refinement of these curves, as suggested by the manual.

The second task occupying the Commission during this period was the correction of procedures established by the Inflow-Outflow Manual for the calculation of flood inflow in the Commission's annual accounting of deliveries. The Inflow-Outflow Manaul simply made some mistakes in providing the directions for performing this annual computation. The clearest of these is the suggestion that the flood inflow entering the river below Alamagordo Dam and above the Acme gage is not included in the annual flood inflow computation.[17] The major task which occupied the Commission's engineers prior to 1957 was that of improving the flood inflow computation techniques provided in the manual.[18]

In 1957, however, the direction of the Commission's study changed. As described in the Master's Report,[19]

---

[17]S.D. 109, p. 155. Similarly, because this flood inflow is omitted from the manual's instructions, specific directions for the computation of this flood inflow are lacking.

[18]This is clearly documented by reference to the Minutes of the Commission's Engineering Advisory Committee, Stipulated Ex. 2: p. 2, Min. of Oct. 24-25, 1956; p. 3, Rept. 10/25/56. See, also, Stip. Ex. 6, Min. of the Inflow-Outflow Subcommittee, p. 1 of Rept. following Min. of 1/18/57 Meeting, and Tex. Ex. 14, p. 11.

[19]pp. 27-28.

the engineers reported that they were unable to reach a conclusion in their current studies and requested the advice of the legal committee concerning their ability to expand the scope of their study. The legal committee reported their opinion that Plates Nos. 1 and 2 of the Inflow-Outflow Manual could be modified, and a special committee was formed to restudy the 1947 Condition.

Thus, contrary to the implication of the Master's Report, prior to 1957 the Commission's efforts at engineering refinements were directed at the Inflow-Outflow Manual and making administrative computations required for annual accounting of deliveries. It was only during the 1957-1961 period that the Commission's engineers engaged in refinements of the description of the 1947 Condition contained in the Report of the Engineering Advisory Committee. This distinction assumes significance both in evaluating the Master's objections to the original report and in the consideration of New Mexico's objections to the Master's Report based upon the administrative history of the Commission.

III. SUMMARY OF ARGUMENT

The question before the Court is the meaning of the term "1947 Condition" used in Article III(a) of the Pecos River Compact. The Special Master has defined the 1947 Condition as:

> that situation in the Pecos River Basin which produced in New Mexico the man-made depletions resulting from the stage of development existing at the beginning of the year 1947 and from the augmented Fort Sumner and Carlsbad acreage.

The Pecos River Compact defines the 1947 Condition as:

> that situation on the Pecos River Basin as described and defined in the Report of the

> Engineering Advisory Committee. In determining any question of fact hereafter arising as to such situation, reference shall be made to, and decisions shall be based on, such report.

The drafters of the Compact defined the 1947 Condition exclusively in terms of the Report of the Engineering Advisory Committee. The Master has entirely removed that report from his definition of the 1947 Condition. This revision of the Compact not only changes the terms of the interstate agreement reflected by the Compact, but also threatens the future viability of the Compact.

IV. ARGUMENT AND AUTHORITIES

A. The "Texas Position"

As recognized by the Master's Report, the question before this Court is the meaning of the term "1947 Condition" in the Pecos River Compact. It is Texas' position that the term is expressly defined by the Compact and that the departure from this definition suggested by the Master's Report is impermissible. Article II(g) of the Compact states:

> The term "1947 condition" means that situation in the Pecos River Basin as described and defined in the Report of the Engineering Advisory Committee. In determining any question of fact hereafter arising as to such situation, reference shall be made to, and decisions shall be based on, such report.

The Report of the Engineering Advisory Committee is, obviously, much broader in scope than simply a definition of the 1947 Condition. It additionally examines several other conditions, provides interpretive comments based upon all the routing studies involved, and provides a suggested method for

performing administrative computations after the Compact is effective. The portion of the report which describes and defines the 1947 Condition is the 1947 Condition routing, or river operation, study.

The Master's Report misstates the Texas position on the 1947 Condition definition. At pages 2 and 42 the Master states that Texas contends the condition is defined by the "Summary of Operations 1947"--attached to his report as Appendix A. This is an oversimplification. The summary of operations is simply that; it is an annual summary of the results of the 1947 Condition routing study. The routing study involves more than simply the annual summary. It was performed on a monthly basis. The routing reflects the values developed by the Engineering Advisory Committee to depict all of the losses and gains to the river, man-made and natural, existing under the 1947 Condition. While the annual summary of operations reflects all these values and reflects the results of the monthly routing, standing alone it is incomplete. The 1947 Condition is defined by the entire routing study, including everything that went into the compilation of the annual summary of operations, i.e., the monthly computations and the values developed for the gains and losses existing under the 1947 Condition routing.

The Article II(g) definition of the 1947 Condition is definite and precise. It ties the 1947 Condition to the Report of the Engineering Advisory Committee and allows no departure from, or modification of, that definition.

B. The Master's Treatment of Texas' Position

The Master notes, and Texas admits, that the Article II(g) definition results in a "1947 Condition" which is artificial. This is unquestionably true, especially in light of the fact that the engineers knowingly included in the 1947 Condition acreage for the Ft. Sumner and

Carlsbad irrigation projects far in excess of the amount actually irrigated at the time and far in excess of the amount which had ever been irrigated at those projects.[20] Values for other gains and losses reflected by the 1947 Condition routing study were based upon various estimates, assumptions, and calculations. Actual recorded values from streamflow records or diversion records simply were not available in all instances, nor are they now available. It is physically impossible to measure all the gains and losses involved; several of the gains and losses may be occurring simultaneously in the same stretch of the river. For this reason the Engineering Advisory Committee was forced to use estimates, assumptions, and computations to develop the values reflected in the routing study. Significantly, the original Engineering Advisory Committee did check the results produced by the 1947 Condition routing study against actual state line gage flow records for the years 1940-1946. Because the difference between calculated and observed results for the period were only minor, the Engineering Advisory Committee concluded, "The check validates the many estimates which had to be made in the calculation and use of the derived data."[21]

While the 1947 Condition routing study presents an artificial picture of the condition of the Pecos River during the 1940-46 period, it was undoubtedly intended to depict conditions on the river as they existed at that time.[22] It is perhaps on this basis that the Master

---

[20]S.D. 109, pp. 52, 55, 70 and 113; Tr. 895-896.

[21]S.D. 109, p. 72. It is noteworthy that New Mexico witnesses now consider this check on results as either meaningless or an indication of errors contained in the original 1947 Condition routing, while Texas witnesses consider it a valid test of the reliability of the 1947 Condition routing. (Tr. 850-851 & 955)

[22]e.g., S.D. 109, p. 113.

concludes the 1947 Condition must refer to a situation which is a "tangible reality," not "synthetic imagery." The Compact, however, was not written to allow the construction preferred by the Master. It states that the "situation" is defined by the Report of the Engineering Advisory Committee. It further emphasizes the point by mandating that, "In determining any question of fact hereafter arising *as to such situation*, reference shall be made to, and decisions shall be based on, such report."[23]

The Master next criticizes Texas' adherence to the Article II(g) definition of the 1947 Condition because it results in an immutable, inflexible definition of that condition. Here the Master perceives four points which argue against the immutability established by the Article II(g) definition.

First, the Master states that Article VI(a) recognizes the use of "additional data hereafter accumulated."[24] This is true; Article VI(a) provides:

> The Report of the Engineering Advisory Committee, supplemented by additional data hereafter accumulated, shall be used by the Commission *in making administrative determinations.*
>
> (Emphasis added)

The critical phrase is "in making administrative determinations." An administrative determination does not involve a determination of what the 1947 Condition is. Rather, administrative determinations involve ascertaining whether stateline deliveries since the Compact became effective have been in quantities equivalent to those available under the 1947 Condition,

---

[23]Art. II(g) (emphasis added).

[24]Master's Report, p. 36.

whether water has been salvaged, or whether stateline deliveries have been depleted by man's activities. Obviously more recent data must be accumulated and utilized to make these administrative determinations because they all involve post Compact events. This, however, has nothing to do with redefining the 1947 Condition.

Second, the Master suggests that the original engineers recognized the need for "corrections and refinements" and this provides a basis for disregarding the inflexibility of the Article II(g) definition.[25] The passage referred to by the Master's Report is set forth below:

> In the routing studies made by the engineering advisory committee such items as consumptive use and spring flow were taken as constants. The commission should make studies of such items in order to determine the extent to which they may fluctuate from year to year in accordance with the variation of meterological factors which affect them. In addition to refinement of such basic data, it may be that refinement of estimating technique can be made of other data such as estimates of flood flow used in the routing studies, which are also used herein to develop inflow-outflow relationships. If this is done, necessarily there must be made a refinement in the inflow-outflow correlations comparable to the refinement in the estimates of the basic data. The commission also should continually check the correlations which are submitted herewith by plotting on the graphs and curves additional streamflow data as they are gathered from year to year. It is probable that some refinement can be made in the correlations before any major change in the depletion of water or the salvage of water in the

[25]Id.

> basin takes place, because such processes undoubtedly will be slow.
>
> S.D. 109, pp. 150-51

This language comes from the Inflow-Outflow Manual, from the section entitled, "Applicability of the Inflow-Outflow Method to the Administration of the Pecos River Compact." It is discussing improvements or refinements which might be possible in the method of administrative accounting suggested in the manual. Whether it is directed at the six tentatively submitted inflow-outflow relationships only, or includes Plates No. 1 and 2, is unclear. The closest this language comes to suggesting modification of the 1947 Condition routing study is its suggestion that the inflow-outflow relationships provided by the manual should be modified to correspond with an improved method of estimating flood inflow which might be developed. That the inflow-outflow relationships might be changed is not contested--the Compact expressly provides that the entire inflow-outflow method of accounting might be replaced if a better or simpler method is developed.[26] This discussion of improving the inflow-outflow relationships and the inflow-outflow method, however, does not detract from the Article II(g) definition of the 1947 Condition. As discussed above, it is not the Inflow-Outflow Manual which defines the 1947 Condition. That condition is defined by the original engineer's report, available in March, 1948, when the negotiators agreed upon the "1947 Condition" as a portion of the nine point agreement and as a basis for Compact. It, not the Inflow-Outflow Manual, was available when the Commission's drafting committee defined the "1947 Condition" in Article II(g).

The third factor leading the Master to conclude that the Article II(g) definition must be given a more flexible

[26]Art. VI(c).

interpretation is Texas' agreement to use the Review of Basic Data to account for deliveries for the 1950-1961 period.[27] That the Texas commissioner took such action is uncontested. The significance of the action is, however, questionable. At best this constitutes "fact finding" by the Pecos River Commission. Such findings are not conclusive; under the Compact's express terms they constitute only prima facie evidence of the facts found.[28] Moreover, the Master has found that this action does not constitute administrative history which is meaningful in construction of the 1947 Condition.[29]

The fourth, and probably decisive, factor in the Master's rejection of the Article II(g) definition of the 1947 Condition is his conclusion that the original 1947 Condition routing study contains mistakes and omissions, and is generally unworkable.[30] The Master has, however, overstated the difficulties involved with the original routing study. In hydrology, as in other technical fields, the state of the art can change significantly in ten years. A major change which occurred since the 1947 engineering study was the advent of computers; these were available for use in 1957 when the Review of Basic Data was undertaken. For this reason and others the Review of Basic Data is, in several respects, a more sophisticated routing study than the one contained in the original engineering report. Nevertheless, evidence introduced before the Master confirmed the validity and overall accuracy of the original routing study. As discussed above, the original engineers checked their work and found it

---

[27]Master's Report, p. 36.

[28]Art. V(f).

[29]Master's Report, p. 44.

[30]Id, at p. 36.

valid.[31] Texas witness, Mr. Frank Bell, former Regional Chief of Surface Water for the Rock Mountain Area of the U.S. Geological Survey,[32] testified that the methods used by the original engineers to check their results were valid, and that the check showed a very close correlation to historic data, validating the study.[33] Besides analyzing the original check on results, Mr. Bell performed his own independent check on the results of the original 1947 Condition river routing study. His independent work also confirmed the accuracy of the original study.[34] Moreover, after a detailed step-by-step analysis of the original 1947 Condition routing study Mr. Bell testified that, with two minor exceptions, the assumptions and methods used in that study were reasonable.[35] Thus, while the 1947 Condition routing study contained in the original engineering report is something short of the perfect engineering model of the river, it is essentially sound and workable.

None of the four reasons advanced by the Master for disregarding the Article II(g) definition of the 1947 Condition provide a significant or adequate basis for disregarding the clear mandate of Article II(g) that, "In determining any question of fact hereafter arising as to such situation, reference shall be made to, and decisions shall be based on, such report [the Report of the Engineering Advisory Committee]."

In response to prior arguments by New Mexico that the original routing study contains mistakes which

---

[31]S.D. 109, p. 72.

[32]Tr. 358.

[33]Tr. 578-79.

[34]Tr. 636-38.

[35]Tr. 580.

must be corrected, Texas has stated that the Compact's definition of the 1947 Condition must stand. While the evidence demonstrates the existence of no serious errors in the original routing study, it does show the existence of some imperfections and short-cuts in that study. To the extent such imperfections exist, both states are bound by them. Article II(g) demonstrates a clear intent to establish a definite ascertainable definition for the 1947 Condition. The Compact's drafters were informed that the engineering study was partially based on estimates and derived data. They were also informed that the validity and overall accuracy of the study was good.[36] The Article II(g) definition reflects a clear decision that the importance of a definite standard by which New Mexico's deliveries might be gaged outweighed the need to correct any minor errors which might exist in that standard.

As recognized by this Court in *Rhode Island v. Massachusetts*, 45 U.S. 591, 635 (1845), "No treaty has been held void, on the ground of misapprehension of the facts, by either or both of the parties." To the extent Article II(g) incorporates shortcomings inherent in the original routing study into its definition of the 1947 Condition, both New Mexico and Texas are bound by them.

Two additional portions of the Master's Report must be addressed. At page 38 the Master "mentions in passing" a problem which he perceives may exist at a later stage of this case. Once the standard for deliveries under the 1947 Condition has been established, actual deliveries during the post Compact period will be compared against that standard. If the actual deliveries are less than those required by the 1947 Condition standard, a subsequent determination of whether the departure is due to man's activities in New Mexico must

[36]S.D. 109, p. 72.

be made. In this connection, the Master observes:

> If the base contains errors which affect the departure, the question is whether the departure is the result of an error in the base or man's activities. Although man's activities are not the present concern, the Master believes that acceptance of an error does not convert that error into an activity of man.
>
> Master's Report, p. 38.

Here, the Master again fails to heed the mandate of Article II(g). Under the Article II(g) definition the 1947 Condition is that situation shown in the original Report of the Engineering Advisory Committee. The Master assumes that the report is attempting to depict some other "situation" and that the other "situation" is in reality the 1947 Condition. Thus, he builds in a new obstruction to delivery accounting. He would require a determination of the portion of the departure due to discrepancies between the idealized "situation" and the engineering model which represents it.

Article II(g) was drafted precisely to avoid this sort of difficulty. If the standard by which deliveries are gaged is not a firm, fixed standard, but is rather a shadow of some ideal "situation," the states will never be able to account for deliveries with confidence. There will always be a possibility that the engineering model reflecting the standard might be further refined to come closer to that ideal "situation." Article II(g) declares, however, that there is no other ideal "situation"; the engineering model and the "situation" are the same. The Master's decision takes a moderately complex Compact and, rather than accepting the simple direct solution provided by the Compact, engrafts a further complexity upon it.

In his Supplemental Report the Master again

addresses Texas' position that the 1947 Condition is defined by the Report of the Engineering Advisory Committee. He states that 30 years of controversy at the Commission level demonstrate the weakness of the Texas position--that the Commission engineers have tried to make an accounting on that basis and found it impossible. On this basis the Master concludes that acceptance of the Texas view of the 1947 Condition would render the Compact incapable of performance. The Master is completely wrong. His statements demonstrate a fundamental misunderstanding of the Commission's administrative history and of the relationship between the 1947 Condition routing study and the Inflow-Outflow Manual.

The difficulties with performing an accounting of deliveries using the original 1947 Condition routing study and the Inflow-Outflow Manual arise from the Inflow-Outflow Manual. The 30 years of administrative history do not demonstrate that the Compact is unworkable if one adheres to the literal terms of Article II(g). From 1950 until 1957 the Commission's engineers were engaged in the task of correcting and improving the Inflow-Outflow Manual. In 1957, when the necessary corrections to the Inflow-Outflow Manual's procedures had been proposed and an accounting under those procedures made,[37] New Mexico suddenly proposed expanding the scope of the engineering work to include a restudy of the 1947 Condition. Thus, the 1950-57 period directly supports Texas' position on the 1947 Condition. From 1957

[37]An accounting of deliveries through the year 1955 was submitted with the April 1, 1957, Report of the Inflow-Outflow Subcommittee. A memorandum dated January, 1957, and minutes of the January 18, 1957, meeting of that subcommittee clearly show that the subcommittee was working on improving the Inflow-Outflow Manual. See Stipulated Exhibit 6, "Minutes and Reports of the Inflow-Outflow Subcommittee of the Engineering Advisory Committee to the Pecos River Commission."

through 1961 the Commission engaged in that restudy and accomplished it. Since that time the Commission has done virtually nothing. It is not Texas' view of the 1947 Condition which leads to difficulty enforcing the Compact; it is allowing the states the flexibility of redefining the condition to achieve a perfect model of some ideal "situation" that causes problems. If New Mexico can see a delivery deficit upcoming under the current model depicting the 1947 Condition, she will obviously urge that further refinements must be made in the model to allow it to more "accurately" depict the ideal "situation."

The Master concludes his treatment of Texas' objections in the Supplemental Report by stating:

> Texas concedes that the Inflow-Outflow Manual must be changed. Any change in that Manual requires a change in the routing study.
>
> Master's Report, p. 49.

This is simply wrong. A change in the accounting method by which compliance with a given standard is judged does not require that the standard itself be changed. Perhaps the Master's failure to grasp the distinction between the standard and the method, by which compliance with that standard is gaged accounts for his failure to appreciate the significance of the period 1950-1957 in the Commission's administrative history. In any case, it must be recognized that the lack of a firm, fixed standard by which deliveries may be judged poses a far greater threat to the viability of the Compact than minor technical deficiencies in that standard or than a flexible standard which is subject to revision whenever the time for accounting of deliveries nears.

V. CONCLUSION

Considering the Master's treatment of the 1947

Condition question as a whole, it is apparent that the Master is attempting to reach an equitable solution to this interstate controversy. He has told both Texas and New Mexico that their long-held views of the 1947 Condition are incorrect. Instead he has chosen a rather indefinite middle ground as the solution to the 1947 Condition question.

While such action would unquestionably be appropriate in a suit for an equitable apportionment of the waters of the Pecos River, this is not such a suit. This is an action to enforce an interstate compact. The balancing of equities and the compromising of extreme positions has already taken place--in the context of the interstate negotiations leading up to the Pecos River Compact.

As a result of the negotiations, New Mexico agreed to define its obligation to deliver water to Texas in terms of the "1947 Condition," and further agreed to define that condition by means of a river routing study in the possession of all parties at the time. This was not an unfavorable arrangement for New Mexico. The study depicted the river's performance with all dams and reservoirs in existence at the time and operated them to catch all available water for the benefit of irrigation then taking place in New Mexico. Additionally, the study provided New Mexico some "padding" for the delivery obligation in the form of stipulated acreage for the Ft. Sumner and Carlsbad irrigation projects in excess of the acreage which had been historically irrigated. This is likely much better treatment than New Mexico would have received in the equitable apportionment suit Texas was then threatening to bring. Many of the rights included within the 1947 Condition were junior to water rights then existing in Texas. Under the doctrine of prior appropriation, junior New Mexico water rights might not have received such favorable treatment.

The Compact negotiators anticipated the availability of salvaged water to satisfy both existing uses and delivery requirements imposed by the Compact.[38] Unfortunately for both states, the river's flow has not increased appreciably as a result of the major phreatophyte (salt cedar) eradication effort which has since taken place. Nevertheless, the Compact was agreed upon by the negotiators, passed by both state legislatures, and ratified by Congress. The time for compromise solutions and balancing equities has passed. The Compact's literal terms must now be enforced. States will lose faith in the viability of compacts as a means of resolving interstate controversies if they cannot obtain enforcement of a compact's express terms from the courts. The courts should not substitute their own retrospective equitable compromises for the one previously agreed upon by the states. States should receive the benefits, and suffer the detriments, of their own compact bargains.

VI. RELIEF REQUESTED

The State of Texas respectfully urges this Court to reject the Master's Report insofar as it defines the 1947 Condition as something other than the 1947 Condition routing study contained in the original Report of the Engineering Advisory Committee, and to remand the cause to the Master for an accounting of deliveries under the standard provided by that routing study and a determination of whether any delivery deficiencies are due to man's activities in New Mexico.

Respectfully submitted,

MARK WHITE
Attorney General of Texas

---

[38]See Testimony of New Mexico negotiator Erickson, Tr. 1005; cf, S.D. 109, pp. xv & 125.

JOHN W. FAINTER, JR.
First Assistant

TED L. HARTLEY
Executive Assistant

Of Counsel:

FRANK R. BOOTH
Booth, Lloyd & Simmons
302 San Jacinto Bldg.
Austin, Texas 78701

Attorneys for Red Bluff Water Power Control District

DOUGLAS G. CAROOM
Assistant Attorney General
Chief, Environmental Protection Division

Attorneys for Plaintiff, The State of Texas

P.O. Box 12548, Capitol Station
Austin, Texas 78711

PROOF OF SERVICE

I, DOUGLAS G. CAROOM, Assistant Attorney General of the State of Texas, one of the Attorneys for the Plaintiff herein, and a member of the Bar of the Supreme Court of the United States, hereby certify that on the 28th day of November, 1979, I served copies by First Class Mail, Postage Prepaid, to counsel for the State of New Mexico and the United States.

DOUGLAS G. CAROOM