

El Paso, Texas  
May 6, 1950

MINUTE No. 195

WORKS REQUIRED ABOVE THE MORELOS DIVERSION DAM TO PROTECT  
LANDS WITHIN THE UNITED STATES AGAINST DAMAGES FROM SUCH  
FLOODS AS MIGHT RESULT FROM THE CONSTRUCTION, OPERATION  
AND MAINTENANCE OF THAT STRUCTURE

The Commission met in the offices of the United States Section at El Paso, Texas, on May 6, 1950, at 10:00 a.m., for consideration of the works that should be constructed upstream from the Morelos Diversion Dam, pursuant to article 12(a) of the Water Treaty, to protect lands within the United States against damages from such floods as might result from the construction, operation and maintenance of the Morelos Diversion Dam being constructed by Mexico on the limitrophe section of the Colorado River pursuant to provisions of the same article.

The Commission reviewed the Principal Engineers' "Joint Report on Works Upstream from the Morelos Diversion Dam Required to Protect United States Lands from Flood Damages Which Might Result from that Structure", dated March 27, 1950. This report, the English and Spanish texts of which are attached hereto and form part hereof, was submitted by the Principal Engineers in accordance with paragraph 4 of the resolution of the Commission set forth in Minute No. 189 adopted May 12, 1948, and recommendation No. 5 of the Joint Report forming part of that Minute.

The Commission agreed with the recommendation of the Principal Engineers that under existing conditions of basin development as described in their Joint Report, a flood of 310,000 second-feet at Yuma, Arizona, should be used for the design of flood protective works. The Commission also agreed that the plans set forth in the Joint Report covering flood protective works upstream from the Morelos Diversion Dam are sound from an engineering standpoint.

The attention of the Commission was directed to the fact that the Congress and interested agencies of the United States have under consideration the feasibility of constructing a flood control dam on the Lower Gila River which, if constructed, would materially reduce the size of floods in the Lower Colorado River originating in the Lower Gila River but that it is presently uncertain whether such construction will be undertaken. The Commission agreed therefore that the responsibility of Mexico with respect to flood protective works

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under article 12(a) of the Water Treaty is measured in accordance with the plans developed for existing conditions of basin development and which are described by the Principal Engineers in their Joint Report, regardless of whether the United States may ultimately construct, as a domestic undertaking, other works providing additional flood control of the Lower Gila River. Therefore, the cost of that portion of the work corresponding to Mexico in providing protection against a design flood of 310,000 second-feet, as estimated by the Principal Engineers, represents the most accurate measure presently available of Mexico's responsibility under article 12(a) of the Water Treaty for the construction of flood protective works in the United States upstream from the Morelos Diversion Dam.

The Mexican Commissioner reiterated that his Government is desirous of making the necessary arrangements as soon as possible for the prompt discharge of its obligations under article 12(a) of the Water Treaty for providing the required protection to United States lands against damages from floods resulting from the construction, operation and maintenance of the Morelos Diversion Dam. It was agreed that in order to facilitate the discharge of said obligations, arrangements should be made promptly for the establishment in a bank of the United States of a credit in the approximate amount, as estimated by the Principal Engineers, of Mexico's share of the cost of levee construction in the United States upstream from the Morelos Diversion Dam, for protecting lands within that country with said dam in operation. The United States Commissioner will draw against the credit thus established, subject to the conditions stipulated in paragraph 3 of the resolution adopted by the Commission and set forth hereinbelow.

The Commission discussed the inadequacy of the Hanlon Heading to prevent the passage down the Alamo Canal of flood waters with the design flood of 310,000 second-feet in the Colorado River, and with the Morelos Diversion Dam in operation, as well as the possibility that that structure will be used to control the deliveries of All-American Canal waters for irrigation in Mexico. It was agreed that in order to prevent the passage of flood waters down the Alamo Canal it would be necessary to alter the Hanlon Heading and raise it to a height two feet above the flow line of the design flood, as recommended by the Principal Engineers in their Joint Report, or to construct other works for this purpose. It was also agreed that the structure would require additional alterations and improvements in order to be utilized for the control of deliveries of water from the All-American Canal for

irrigation

irrigation in Mexico and that all necessary alterations and improvements to the structure should be performed at the same time. It was concluded, therefore, that final agreement as to works which should be constructed, or alterations and improvements to the Hanlon Heading, for purposes of flood protection and control of deliveries of water from the All-American Canal for irrigation in Mexico, should be deferred until complete data are available with respect thereto.

The Commission also discussed arrangements for the payment by Mexico of the proportion of the annual cost of levee maintenance in the United States corresponding to the portion of the works necessitated by the Morelos Diversion Dam. It was agreed that the proper basis for such payment should be the proportion of the total annual costs of such levee maintenance which the cost of levee construction in the United States allocable to Mexico bears to the total cost of construction of the levees. It was further agreed that decision as to the exact proportion to be paid by Mexico will be deferred until all necessary data are available with respect to construction costs.

The Commission then adopted the following resolution:

"(1) The Principal Engineers' 'Joint Report on Works Upstream from the Morelos Diversion Dam Required to Protect United States Lands from Flood Damages Which Might Result from that Structure', dated March 27, 1950, is approved subject to the understandings expressed below.

"(2) With the credit established by Mexico as provided for in paragraph (3), the United States will initiate construction of levees within its own territory upstream from the Morelos Diversion Dam and, subject to the appropriation of funds by the Congress of the United States for such work as may be performed at the expense of the United States, it will complete as expeditiously as possible the necessary works within its own territory upstream from said dam to provide protection to lands within the United States against floods in the Colorado River with that structure in operation.

"(3) Within the period of 60 days after the approval of this Minute by the two Governments, the Government of Mexico will establish in a bank of the United States to be approved by the United States Commissioner an irrevocable credit in favor of the United States Commissioner in the amount of

\$2,000,000

\$2,000,00 U.S. Cy. for the payment, subject to the final liquidation provided for in paragraph (4), of Mexico's share of the cost of levee construction in the United States upstream from the Morelos Diversion Dam to protect United States lands against floods with the said dam in operation. The United States Commissioner or his designated representative will draw monthly against the credit thus established, with the countersignature of the Mexican Commissioner or his designated representative, in such amount as, together with any unexpended balance from previous withdrawals, may be required for anticipated expenditures for the construction of levees during the following month.

"(4) Upon completion by the United States of levees within its own territory upstream from the Morelos Diversion Dam to provide protection to United States lands against floods of the Colorado River with that structure in operation, there shall be a final liquidation of the amount corresponding to Mexico as the cost of levee construction upstream from and necessitated by said structure. Regardless of whether levees are constructed for the design flood of 310,000 second-feet recommended by the Principal Engineers under existing conditions of basin development or for a design flood of lesser magnitude in combination with other flood control works to be constructed by and at the expense of the United States, the final liquidation shall be on the basis of the share corresponding to Mexico of the cost of constructing levees for the flood of 310,000 second-feet, as estimated by the Principal Engineers in their Joint Report, and as adjusted by the Commission in the light of actual construction experience to correct any imprecisions in the estimates of the Principal Engineers or to cover any contingencies unforeseen in their Joint Report. Promptly after final determination is thus made of the total cost corresponding to Mexico, Mexico shall pay the United States any balance by which such total cost may exceed the credit of \$2,000,000 U.S. Cy. herein provided for, or the United States shall relinquish to Mexico any balance by which the said credit may exceed the cost corresponding to Mexico, as the case may be.

"(5) Upon establishment of the credit provided for in paragraph (3) and subject to the final liquidation provided for in paragraph (4), Mexico will be considered to have discharged in full its obligations under article 12(a) of the Water Treaty

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insofar as they relate to payment of the cost of construction and improvement of works within the United States above the Morelos Diversion Dam, other than those referred to in paragraph (9), necessary to protect lands within the United States against damages from such floods as might result from the construction, operation and maintenance of that dam.

"(6) Concurrently with the levee construction performed by the United States, Mexico will undertake at its own expense the construction of levees within its own territory above the Morelos Diversion Dam necessary to protect lands within the United States against damages from such floods as might result from the construction, operation and maintenance of that dam. Mexico will perform such construction in accordance with plans based upon those adopted for levee construction in the United States, so that the levee system in each country will be in conformity with that in the other.

"(7) Mexico will operate and maintain at its own expense the levees to be constructed or improved within its own territory under this agreement. The United States will operate and maintain the levees to be constructed or improved within its own territory, with Mexico contributing to the cost thereof in the proportion to be determined as set out in the following paragraph (8).

"(8) The basis for payment of Mexico's share of the annual costs of operation and maintenance of levees constructed or improved within the United States under this agreement will be the proportion of the total annual costs of such operation and maintenance which the cost of levee construction within the United States allocable to Mexico bears to the total cost of construction of such levees including levees presently existing. As soon as the necessary cost data are available, a further agreement will be concluded by the Commission with respect to the exact percentage of the annual operation and maintenance costs to be paid by Mexico and the time and method of making such annual payments. ||

"(9) The two Sections of the Commission will make such additional studies as may be necessary to determine the works, or the alterations and improvements of the Hanlon Heading, which may be required both to prevent the passage of river flood waters down the Alamo Canal and to control deliveries of water from the

All-American Canal for irrigation in Mexico. On the basis of such studies, the Commission will conclude a further agreement with respect to the works, or the alterations and improvements of the Hanlon Heading, necessary for such purposes and with respect to the division between the two Governments of costs of such construction."

The meeting then adjourned.

s/ L. M. Lawson  
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Commissioner of the United States

s/ D. Herrera J.  
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Commissioner of Mexico

s/ George H. Winters  
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Secretary of the United States Section

s/ Fernando Rivas S.  
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Secretary of the Mexican Section