INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO.

MINUTE NO. 319

Coronado, California
November 20, 2012

INTERIM INTERNATIONAL COOPERATIVE MEASURES IN THE COLORADO RIVER BASIN THROUGH 2017 AND EXTENSION OF MINUTE 318 COOPERATIVE MEASURES TO ADDRESS THE CONTINUED EFFECTS OF THE APRIL 2010 EARTHQUAKE IN THE MEXICALI VALLEY, BAJA CALIFORNIA

The Commissioners met in the City of Coronado, California on November 20, 2012 at 1:00 p.m., in order to consider interim international joint cooperative measures to address water management in the Colorado River Basin.

I. BACKGROUND

The Commissioners referred to the interest of both countries in identifying cooperative opportunities that would help ensure that the Colorado River system is able to continue to meet the needs of both nations, consistent with the declarations in the August 13, 2007 Joint Statement by officials from both governments, and the Joint Declaration by the United States Secretary of the Interior and Mexico's Ambassador on January 15, 2009, which noted that, based on the principles of mutual respect and bilateral collaboration, the United States and Mexico have sought to address areas of common interest and support the efforts of the Commission to identify innovative opportunities for water conservation and environmental protection.

The Commissioners observed that in this context, in early 2008 the Commission prepared the terms of reference to be applied, established a framework for discussion, and coordinated binational work groups in order to explore opportunities for cooperation on the Colorado River, in furtherance of the provisions of the "United States-Mexico Treaty on Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande," signed February 3, 1944 (hereinafter the 1944 Water Treaty).

The Commissioners also referred to Minute 317, "Conceptual Framework for U.S.-Mexico Discussions on Colorado River Cooperative Actions," dated June 17, 2010, which stipulates that the Commission "shall in particular explore opportunities for binational cooperative projects that: minimize the impacts of potential Colorado River shortage conditions; generate additional volumes of water using new water sources by investing in infrastructure such as desalinization facilities; conserve water through investments in a variety of current and potential uses, including agriculture, among others; and envision the possibility of permitting Mexico to use United States infrastructure to store water."

The Commissioners recognize that various considerations exist in both countries with respect to the implementation of some of the long-term options and activities that have

been identified in Minute 317 to address binational cooperative objectives and opportunities. Minute 319 represents a further agreement by the United States and Mexico to work towards addressing these considerations by implementing several of these options and activities in phases.

From the date this Minute enters into force and for an interim period through December 31, 2017 a series of temporary measures will be undertaken, including a pilot program to improve infrastructure and develop projects in Mexico, which will allow both countries to better assess the long-term opportunities and cooperative measures for water conservation, management and development.

The Commissioners referred to the interest stated by the Governments of the United States and Mexico in the preservation of the riparian and estuarine ecology of the Colorado River in its limitrophe section and delta, in accordance with the provisions of Minute 306, "Conceptual Framework for United States-Mexico Studies for Future Recommendations concerning the Riparian and Estuarine Ecology of the Limitrophe Section of the Colorado River and its Associated Delta," dated December 12, 2000.

In addition, activities will be initiated with regard to longer term planning, study, and development of future cooperative actions that could be undertaken, including discussion of potential for deliveries to Mexico of new or non-Colorado River sources that would allow Mexico to utilize additional volumes of such water after the term of this Minute.

The Commissioners further referred to Minute 318, "Adjustment of Delivery Schedules for Water Allotted to Mexico for the Years 2010 through 2013 as a Result of Infrastructure Damage in Irrigation District 014, Rio Colorado, Caused by the April 2010 Earthquake in the Mexicali Valley, Baja California," dated December 17, 2010.

II. PREVIOUS CONSULTATIONS

The Commissioners made note of the consultations held under the framework of the Commission, during which issues of mutual interest were jointly identified, as were the mechanisms for their discussion through binational work groups coordinated by the Commission, which included the participation of a wide range of agencies and organizations at the three levels of government, as well as non-governmental and research institutions from both countries, who are stakeholders in the matters under discussion. In this context, the Commissioners referred to the binational Consultative Council created under Minute 317, composed of representatives of the Commission, the federal governments and the basin states, to facilitate consideration of the matters associated with these issues and make recommendations to the Commissioners as appropriate; the Commissioners will review the Consultative Council's activities and recommendations.

The Commissioners also noted that the topics covered during the aforementioned binational discussions included aspects such as generating and conserving additional

volumes of water, salinity, variable water supplies within the Colorado River Basin, opportunities to establish Intentionally Created Mexican Allocation (ICMA) by means of Mexico deciding to defer delivery of water volumes through adjustments to its annual delivery schedule, the exchange of water, and the delivery of water for the environment; at the same time, several specific binational projects were identified that could be jointly implemented to the benefit of both countries.

III. PROPOSED MEASURES

Both countries have recognized the value of an interim period of cooperation to proactively manage the Colorado River in light of the historical and potential future increased variability due to climate change; therefore, proactive management of the Colorado River will maximize utilization of the resource during variable reservoir conditions, benefiting both countries. The Commissioners made note that based on the consultations undertaken through the binational work groups, it is in the interests of the United States and Mexico to partner in exploring various cooperative measures with regard to the management of the Colorado River system, including allowing for the creation of Intentionally Created Mexican Allocation (ICMA) when Mexico chooses to adjust its delivery schedule, sharing in the benefits of water that may be available temporarily through high elevation reservoir conditions, engaging in cooperative measures to reduce the likelihood of unprecedented drought-related reductions in water deliveries to water users in both countries, and addressing the continuing impacts of the 2010 earthquake in the Mexicali Valley. To further binational cooperation, the countries have identified the following measures to be undertaken during an interim period from the date this Minute enters into force through December 31, 2017. These measures incorporate mechanisms identified on a voluntary basis in consultations within and between both countries to explore cooperative opportunities on the Colorado River.

If by December 31, 2016, the Commission has not completed a comprehensive Minute that extends or replaces the substantive provisions of this Minute through no later than December 31, 2026, the Commissioners shall instruct their respective Principal Engineers to develop recommendations for a potential comprehensive Minute by working with and taking into consideration the advice of the Consultative Council and any other institution that each Commissioner deems necessary, by reviewing the experiences gained through implementation of this Minute and by considering the reports and other documentation that have been prepared.

For purposes of making the determinations under Section III of this Minute, the Commission will request from the United States Bureau of Reclamation (Reclamation) the August 24-Month Study, which will be used for projecting the January 1 elevations of Lake Mead. The Commission will provide the Study to Mexico's National Water Commission through the Mexican Section. The 24-Month Study refers to the operational study conducted each month by Reclamation to project future reservoir operations.

Furthermore, in the event of a mid-year review of Colorado River operations, Reclamation will provide the Commission with updated projections and if increased deliveries are authorized to water users in the Lower Basin in the United States, then increased deliveries will be made available to Mexico under the provisions of Section III of this Minute.

The Commissioners made note that based on the consultations undertaken and the progress on each issue and particular project, the following cooperative measures have been identified:

1. EXTENSION OF MINUTE 318 COOPERATIVE MEASURES TO ADDRESS THE CONTINUED EFFECTS OF THE APRIL 2010 EARTHQUAKE IN THE MEXICALI VALLEY, BAJA CALIFORNIA

The Commissioners, in reference to Resolution 10 of Minute 318, recognizing the potential benefits of continuing joint cooperative actions between the two countries, considered the progress achieved to date in the reconstruction of the damaged infrastructure in Mexico. Additionally, they recognized that, as of the date this Minute is signed, the works contemplated in Minute 318 to repair infrastructure damage in Irrigation District 014, Rio Colorado, caused by the April 2010 earthquake in Mexicali, Baja California, have not been concluded.

Based upon the need to continue these repairs the Commissioners decided:

- To extend through December 31, 2017 the cooperative measures first established in Minute 318;

- That all water that was previously deferred under Minute 318 shall be referred to and accounted for and combined with any amounts deferred under Section III.1; and

- Subject to Section III.4.o of this Minute, the maximum total amount previously stipulated in Resolution 1 of Minute 318 shall not apply.

Furthermore, the Commissioners decided the following:

- Mexico may utilize water generated under the framework of Minute 318 when Mexico requests it, including to compensate for any reduction in deliveries under Section III.3, and subject to the specific terms contained in the 1944 Water Treaty and this Minute; and

- The 2% assessment that applies to ICMA in the year of its creation will not be applied to those volumes of water deferred due to infrastructure damage in Mexico.

2. DISTRIBUTION OF FLOWS UNDER HIGH ELEVATION RESERVOIR CONDITIONS

The Commissioners considered the appropriateness of coordinating basin operations under high elevation reservoir conditions for an interim period to provide benefits to both nations. This interim cooperative approach will result in deliveries to Mexico of volumes of water in addition to the normal annual delivery of 1,500,000 acre-feet (1,850,234,000 cubic meters) stipulated in Article 10(a) of the 1944 Water Treaty when the basin is in a condition such that Lake Mead elevation is at or above 1,145 feet mean sea level (msl) and Colorado River mainstream water is available for delivery to water users in the Lower Basin of the United States in conformance with the surplus guidelines applicable to said users that are in effect at the time this Minute enters into force. With this understanding, this interim cooperative approach will be carried out as follows:

a. In years when Lake Mead is projected to be at or above elevations specified in the following table on January 1 of the following year and Mexico has reached at least once a minimum of 80,000 acre-feet (99 million cubic meters [mcm]) of ICMA under this Minute and/or deferred delivery under Section III.1 after the date of entry into force of this Minute, Mexico may increase its order for Colorado River system water as follows:

b.

Lake Mead Elevation	**Mexico Annual Increase**
At or above 1,145 feet msl and below 1,170 feet msl	40,000 acre-feet (49 mcm)
At or above 1,170 feet msl and below 1,200 feet msl	55,000 acre-feet (68 mcm)
At or above 1,200 feet msl and flood control releases are not required	80,000 acre-feet (99 mcm)
When flood control releases are required, regardless of elevation	200,000 acre-feet (247 mcm)

c. For delivery of increased flows at high elevation reservoir conditions, the Mexican Commissioner will provide a timely notification to the United States Commissioner of the schedule for increased releases, indicating the volumes, months, and delivery points in which the delivery of said volumes is desired.

d. The provisions of this Minute will not affect the operation of Article 10(b) of the 1944 Water Treaty, which provides that additional waters of the Colorado River system may be delivered to Mexico up to 200,000 acre-feet (246,697,000 cubic meters) for a total quantity not to exceed 1,700,000 acre-feet (2,096,931,000 cubic meters).

3. DISTRIBUTION OF FLOWS UNDER LOW ELEVATION RESERVOIR CONDITIONS

The Commissioners considered the appropriateness of coordinating basin operations under low elevation reservoir conditions for an interim period to provide benefits to both nations. The United States and Mexico recognize that it is in their mutual interests to mitigate and work preventatively and proactively in a program to address the potential for unprecedented reductions on the Colorado River, which would occur when major Colorado River storage reservoirs reach critical elevations. If these major reservoirs reach critical elevations as a result of prolonged drought conditions in the basin, it may no longer be operationally possible to deliver each country's full amount of Colorado River water, which would result in reductions in Colorado River deliveries that would adversely affect the interests of water users in both countries.

The Commissioners observed that in the framework of this joint cooperative process the information regarding shortage conditions has been exchanged and said conditions have been modeled jointly for the purpose of analyzing rainfall and runoff behavior. The Commissioners also observed that, for an interim period, it is appropriate to use the elevation of Lake Mead as the trigger for potential reductions as part of this program under this Minute that will provide benefits for both countries.

The Commissioners made note that under domestic operational guidelines that are applicable to United States water users in the Lower Basin, the following water delivery reductions are applied: 333,000 acre-feet (411 mcm) when the January 1 Lake Mead elevation is projected to be at or below 1,075 feet msl and at or above 1,050 feet msl; 417,000 acre-feet (514 mcm) when the January 1 Lake Mead elevation is projected to be below 1,050 feet msl and at or above 1,025 feet msl; and 500,000 acre-feet (617 mcm) when the January 1 Lake Mead elevation is projected to be below 1,025 feet msl.

Considering the above, current conditions, projected water availability, potential water shortage in the Colorado River Basin, and the benefits of preventative and proactive management, the Mexican Commissioner stated the willingness of the Government of Mexico to implement the measures that are described below, and the United States Commissioner agreed with such measures, which will operate in the following manner:

a. Water delivery reductions to Mexico: 50,000 acre-feet (62 mcm) when the January 1 Lake Mead elevation is projected to be at or below 1,075 feet msl and at or above 1,050 feet msl; 70,000 acre-feet (86 mcm) when the January 1 Lake Mead elevation is projected to be below 1,050 feet msl and at or above 1,025 feet msl; and 125,000 acre-feet (154 mcm) when the January 1 Lake Mead elevation is projected to be below 1,025 feet msl.

b. Prior to December 31, 2017, Mexico may adjust its order to include deliveries from ICMA or water deferred under Section III.1 up to a volume to offset the reductions described in Section III.3.a above, not to exceed a total annual delivery to Mexico of 1,500,000 acre-feet (1,850,234,000 cubic meters), on the condition that Mexico has reached at least once a minimum of 80,000 acre-feet (99 mcm) of ICMA under this Minute and/or deferred delivery under Section III.1 after the date of entry into force of this Minute.

c. Whenever Lake Mead is below elevation 1,025 feet msl and it is projected to decrease to below 1,000 feet, the United States Section of the Commission shall consult with Reclamation at least annually to consider Colorado River hydrologic conditions, and notify the Commission of the results of said consultations to enable the Commission to discuss further measures that could be undertaken recognizing that reductions in both countries may need to increase when Lake Mead is below elevation 1,025 feet msl.

d. In order for the Government of Mexico to systematically track the basin conditions and prepare in a timely manner for any eventual reductions in its deliveries, the Government of the United States will provide the most current information to Mexico on basin conditions as often as required, including precipitation, streamflow, and water storage conditions in the basin and their historical behavior; the consumptive water uses for the different basin states and the historical trend; and the status of the determination of shortage conditions in the Colorado River Basin within the United States, including, on a monthly basis, the 24-Month Study.

e. In years when Lake Mead is projected to be at or below the elevations identified in Section III.3.a on January 1, the United States will furnish to Mexico, through the Commission, information on the natural causes for the projected reservoir elevation of Lake Mead.

f. Lake Mead reservoir elevations and correlation with drought indicators will be monitored and studied during the term of this Minute. Prior to December 31, 2017, the Commissioners shall consider the results of such monitoring and studies, to assess the pertinent future applicability of such information for potential operational agreements.

4. INTENTIONALLY CREATED MEXICAN ALLOCATION (ICMA)

The Commissioners determined that as a cooperative measure to address the growing water demand and potential low elevation reservoir conditions in the basin in the future, a program of Intentionally Created Mexican Allocation (ICMA) will be established. Mexico will be able to create ICMA by deciding to defer delivery of water volumes through adjustments to its annual delivery schedule resulting from water conservation projects or

new water sources projects. ICMA would then be available for subsequent delivery. Creation, accumulation and delivery of ICMA will be subject to the following terms:

a. Mexico may use ICMA or water deferred under Section III.1 for any purpose, subject to the specific provisions of this Minute.

b. Mexico may create an annual maximum volume of ICMA of 250,000 acre-feet (308 mcm) through December 31, 2017, by making a downward adjustment to the schedule for the annual delivery to Mexico of its Article 10(a) allotment under the 1944 Water Treaty, in accordance with Section III.4 of this Minute. Any adjustment of deliveries of water deferred under Section III.1 shall count towards the annual maximum 250,000 acre-foot (308 mcm) amount.

c. The maximum volume of ICMA that Mexico may take delivery of in any one calendar year is 200,000 acre-feet (246,697,000 cubic meters) until all of its available ICMA is used. Any delivery to Mexico of water deferred under Section III.1 shall count towards the 200,000 acre-foot (246,697,000 cubic meters) maximum annual delivery amount established in this Section III.4.c. In any given year, the total annual delivery to Mexico may not exceed 1,700,000 acre-feet (2,096,931,000 cubic meters).

d. When Lake Mead is below elevation 1,025 feet msl, Mexico may not take delivery of ICMA or water deferred under Section III.1.

e. A 3 percent reduction for evaporation shall be applied annually on December 31 to ICMA and water deferred under Section III.1 beginning in the year of creation. This reduction will not be applied in years when Lake Mead elevation is below 1,025 feet msl on January 1.

f. A 2 percent water assessment shall be applied to ICMA in the year of creation and reserved for environmental purposes in Mexico. The 2 percent assessment would not be applied to any water created through the Water for the Environment and ICMA/ICS Exchange Pilot Program described in Section III.6 or to the water deferred under Section III.1. ICS refers to Intentionally Created Surplus applicable in the United States.

g. Notwithstanding the provisions of Section III.3.b, ICMA or water deferred under Section III.1 will not be delivered to Mexico when doing so would reduce the projected January 1 elevation of Lake Mead triggering the first water delivery reduction level (at or below 1,075 feet msl) or a subsequent water delivery reduction level (below 1,050 or below 1,025 feet msl) as provided in Section III.3.

h. Mexico may create ICMA or water deferred under Section III.1 in any year except when flood control releases are being made from Lake Mead.

i. If Mexico decides to create ICMA or water deferred under Section III.1 at or above 1,145 feet msl, increased deliveries to Mexico above 1,500,000 acre-feet (1,850,234,000 cubic meters) that occur when Lake Mead is at or above 1,145 feet msl may not be converted to ICMA or considered water deferred under Section III.1. When Lake Mead is at or above 1,145 feet msl, Mexico will describe the water conservation projects or new water sources that created the ICMA or affirm that the delivery adjustment is related to the continuing impacts of the 2010 earthquake in the Mexicali Valley.

j. During flood control releases, the quantities of ICMA and water deferred under Section III.1 accumulated by Mexico, and the quantity of ICS accumulated by the United States after January 1, 2013 in accordance with domestic operational guidelines, will be released proportionally based on volume. Mexico shall decide how to allocate the reduction between its accumulated balances of ICMA and water deferred under Section III.1. This provision will remain in effect after December 31, 2017 until no ICMA and water deferred under Section III.1 remain.

k. The Mexican Commissioner will provide a timely notification to the United States Commissioner of the creation of ICMA or water deferred under Section III.1 by means of a letter indicating the volumes and schedule for the creation of said ICMA or the adjustment in its delivery schedule, including a brief description of the water conservation projects or new water sources or describing that the delivery adjustment is related to the continuing impacts of the 2010 earthquake in the Mexicali Valley. The United States and Mexico will consider operational constraints to ensure that creation of ICMA or water deferred under Section III.1 does not adversely affect U.S. operations.

l. For delivery to Mexico of ICMA or volumes deferred under Section III.1, the Mexican Commissioner will submit a request for the corresponding delivery to the United States Commissioner, indicating the volumes and months in which the delivery of said volumes is required. The United States Commissioner, upon receipt of the request, will review the Colorado River system's status and approve the order subject to available balances of ICMA or volumes deferred under Section III.1 as well as operational issues identified in the review of the Colorado River system's status, taking into consideration the desire of both countries to schedule the delivery of ICMA or volumes deferred under Section III.1 in such a fashion so as not to trigger the first water delivery reduction level (at or below 1,075 feet msl) or a subsequent water delivery reduction level (below 1,050 or below 1,025 feet msl) as provided in Section III.3 and to avoid potential adverse effects on United States operations. Reclamation shall forward

to the Commission water accounting records that will be used by the Commission to account for the creation, delivery, and resulting balances of water deferred under Section III.1 and ICMA under Section III.4.

m. Beginning on January 1, 2018, Mexico may order delivery of ICMA and water deferred under Section III.1 only when the elevation of Lake Mead is greater than 1,075 feet msl but cannot order delivery of such water when the elevation of Lake Mead is below 1,075 feet msl; delivery of these volumes remains subject to the terms established in Sections III.4.a, c-e, g, j, l.

n. The water deferred under Section III.1 may be converted to ICMA at Mexico's election and, when that occurs, will be subject to all of the conditions associated with ICMA as described in this Section III.4.

o. Through December 31, 2017, Mexico may accumulate a maximum combined balance of 1,500,000 acre-feet (1,850,234,000 cubic meters) of ICMA and water deferred under Section III.1.

5. SALINITY

In light of the efforts made by both governments to reach an agreement on a permanent and definitive solution to the international problem of the salinity of the Colorado River through Minute 242, "Permanent and Definitive Solution to the International Problem of the Salinity of the Colorado River," dated August 30, 1973, the Commissioners determined that any cooperative arrangement or measure that is implemented under this Minute 319 through December 31, 2017 must comply with the salinity differential between Imperial Dam and the Northerly International Boundary (NIB) as described in Resolution 1.a) of Minute 242.

With respect to the foregoing, the Commissioners observed that the implementation of certain cooperative options, such as the creation of ICMA and water deferred under Section III.1, could impact the salinity of the waters delivered at the Northerly International Boundary, and therefore require the implementation of measures to address said impacts.

In this context, based on the analysis performed by the Binational Work Group established under the Commission framework to assess the issue of salinity, the Commissioners observed the appropriateness of minimizing salinity impacts when creating ICMA and water deferred under Section III.1. To this end, the Governments of the United States and Mexico will operate their systems in order to minimize impacts on salinity due to creation of ICMA and water deferred under Section III.1 as follows:

a. Mexico may use the Wellton-Mohawk bypass drain to convey volumes it considers appropriate. The United States and Mexico will take into account

operational constraints to ensure that the water conveyance does not adversely affect United States water operations.

b. During the creation of ICMA and water deferred under Section III.1, the salinity and volumes stipulated in Minute 242 will be complied with at all times, which will proceed under the following terms:

   i. Taking into account the potential impact that the adjustment in the schedule for creating ICMA and water deferred under Section III.1 may have on the salinity differential between Imperial Dam and the NIB described in Resolution 1.a) of Minute 242, the aforementioned salinity differential will be calculated as if the volume of water created as ICMA and water deferred under Section III.1 were delivered from Imperial Dam to the NIB, consistent with the Water Deliveries Monitoring adopted in the Amended Joint Report of the Principal Engineers associated with Minute 314, "Extension of the Temporary Emergency Delivery of Colorado River Water for Use in Tijuana, Baja California," dated November 14, 2008.

   ii. The volumes of water that Mexico conveys to the Wellton-Mohawk bypass drain and/or discharges directly to the channel of the Colorado River downstream from Morelos Dam as a result of the creation of ICMA or deferred delivery under Section III.1 of this Minute, will be added to and accounted for in their quantity and quality with the deliveries at the NIB in order to comply with the volumes and salinity limits stipulated in Minute 242 and the 1944 Water Treaty. To implement what is described in this paragraph, the Principal Engineers, through an exchange of letters, will document the procedure developed by the Binational Salinity Work Group.

c. For purposes of this section, those volumes of water that Mexico expressly requests to be conveyed in accordance with Sections III.5.a-b shall be accounted for as part of Mexico's 1944 Water Treaty allotment.

6. WATER FOR THE ENVIRONMENT AND ICMA/ICS EXCHANGE PILOT PROGRAM

The Commissioners considered that to the extent additional water supplies can be identified, it is desirable to have water for environmental purposes flow to the Colorado River limitrophe and delta ecosystem.

The Commissioners referred to Minute 306, which provided a conceptual framework for United States-Mexico studies related to the riparian and estuarine ecology of the Colorado River limitrophe and delta.

The Commissioners also made note of Minute 316, "Utilization of the Wellton-Mohawk Bypass Drain and Necessary Infrastructure in the United States for the Conveyance of Water by Mexico and Non-governmental Organizations of both Countries to the Santa Clara Wetland during the Yuma Desalting Plant Pilot Run," signed April 16, 2010, in which the Governments of the United States and Mexico, together with a binational coalition of non-governmental organizations, previously worked together in the spirit of binational cooperation to make water available for environmental benefits on a temporary basis.

The Commissioners also made note of the Environmental Work Group's efforts to identify water needs for the Colorado River limitrophe and delta. This pilot program will arrange for the means to create 158,088 acre-feet (195 mcm) of water for base flow and pulse flow for the Colorado River limitrophe and its delta by means of the participation of the United States, Mexico, and non-governmental organizations. The Commissioners further acknowledged that there remain important issues to be explored with regard to environmental water needs, including the timing and location of periodic pulse flows and base flows.

Implementation of this Minute will provide a mechanism to deliver both base flow and pulse flow during the period this Minute is in force. For purposes of the pilot program in this Minute, a volume of water will be delivered to the Riparian Corridor in a joint effort between the Government of the United States and the Government of Mexico, with the anticipated participation of a binational coalition of non-governmental organizations. Furthermore, the information developed through implementation of this Minute will be used to inform future decisions regarding binational cooperative efforts to address proactive actions in the Colorado River Delta.

The Commissioners further made note that in the discussions among the binational work groups regarding cooperation on the Colorado River, the opportunity was observed to obtain mutual benefits from joint investments by both countries in binational projects that could generate or conserve volumes of water. Based on the joint investments made, some of the water produced through these projects would be made available for environmental water needs, while other portions would be distributed between the two countries for a defined period of time in the proportion agreed upon through the Commission in this Minute. The Commissioners noted that the implementation of such a program would require the resolution of a series of issues, and that investigation of those issues through a pilot program could yield significant information.

Accordingly, the Commissioners observed that the following shall apply:

a. During the five-year interim period (2013-2017), a joint-cooperative pilot program will be implemented to evaluate the aspects involved in creating water for the environment and an ICMA to ICS exchange project.

b. A binational coalition of non-governmental organizations has indicated its willingness to provide water for base flow. This arrangement will be documented in a Joint Report of the Principal Engineers in accordance with the Delivery Plan referred to in this Minute.

c. As part of this pilot program, resources for a joint investigation of the different aspects of the pilot program should be obtained. The resources for this investigation should be provided by the United States and Mexico. This investigation should:

   i. Evaluate the performance of the pilot program, including:
      - its success in creating water for the environment;
      - the environmental benefits derived therefrom;
      - the accounting for the volumes conserved;
      - the operational aspects of creating ICMA and the conversion of ICMA to ICS.
   ii. Explore options for future joint cooperative actions to create water for the environment, capitalizing on the environmental improvements achieved during the five-year period that this Minute is in force.
   iii. Test the mechanisms for the allotment and delivery of water to the Riparian Corridor in the reach between Morelos Dam and the Hardy River confluence.
   iv. Evaluate the ecosystem response, most importantly the hydrological response and, secondarily, the biological response.

The Pilot Project will be implemented as follows:

d. The United States will contribute a total amount of $21 million dollars to Mexico through the Commission for infrastructure and environmental projects in Mexico. The Commission will develop a schedule for contributions to reach this amount. The infrastructure and environmental projects include the following:

   i. water infrastructure, including the Reforma Canal lining and technical improvement projects in Module 18 of Irrigation District 014, Rio Colorado
   ii. environmental enhancement of riparian areas of the Colorado River, including its delta
   iii. other related projects

e. Mexico shall receive all waters derived from this binational pilot project subject to the following agreements for the limited term of this Minute:

i. The United States and Mexico will implement a binational cooperative pilot program for the duration of this Minute. The binational project will generate environmental flows to benefit the riparian ecosystem and as a part of that effort a pulse flow will be implemented to the Colorado River Delta of approximately 105,392 acre-feet (130 mcm) tentatively during 2014 but no later than 2016. A portion of the funds provided in Section III.6.d above by the United States will provide funding for projects which will generate 50% of this pulse flow. The United States and Mexico shall take all such appropriate actions in their respective territories to ensure that such pulse flow reaches the intended areas of the Colorado River Delta. The sources of water to implement this flow shall be from ICMA created or water deferred under Section III.1.

ii. To provide for the delivery of the base flow and pulse flow for environmental purposes within Mexico under this Minute, the Commissioners will direct the Consultative Council and the Environmental Work Group to prepare a Delivery Plan, which will include a schedule of monthly flows, delivery points and volumes in an amount of approximately 105,392 acre-feet (130 mcm) for pulse flow and 52,696 acre-feet (65 mcm) for base flow. The Delivery Plan will be submitted to the two Sections of the Commission for review and approval by January 31, 2014. Once approved by the Commission, the Delivery Plan will be implemented, consistent with the 1944 Water Treaty and the provisions of this Minute.

iii. In consideration for the infrastructure investments referenced in this Section III.6, before December 31, 2017, Mexico shall take all action necessary to provide to the United States a total quantity of 124,000 acre-feet (153 mcm) of water to be converted from ICMA, water deferred under Section III.1, or from any other source for use in the United States.

f. The international accounting for the pulse flow and base flow implemented under this pilot program will be performed by the Commission, taking into consideration the information provided by Reclamation. The Commission, with the advice of the Consultative Council, will present a report to the Governments of the United States and Mexico regarding the delivery of water pursuant to the pilot program and the environmental results achieved by such deliveries.

g. A Joint Report of the Principal Engineers shall be prepared by December 31, 2018 with the results of the investigation referred to in Section III.6.c above, evaluating its success in creating water to be used for environmental and other purposes, the environmental benefits derived therefrom, the accounting for the volumes conserved, and the operational aspects of creating ICMA and the conversion of ICMA to ICS. The aforementioned report will contain the recommendations necessary for similar subsequent programs.

7. INTERNATIONAL PROJECTS

The Commissioners noted that during the talks held within the framework of Minute 317 of the Commission to discuss the opportunities for cooperation on the Colorado River, the opportunity was observed to obtain mutual benefits by undertaking construction of international projects with joint investment by both countries that would allow for water conservation or the generation of new water sources to address the growing water demands in the basin and potential shortage conditions in the basin in the future. In this context, the Commissioners observed the usefulness of immediately pursuing development of the Environmental Restoration Pilot Project at the Miguel Aleman Site. The Commissioners further observed that a number of other opportunities exist for joint cooperative projects benefitting both nations, including but not limited to those set forth below. These additional projects should be pursued concurrently with development and execution of a Minute to extend the substantive provisions of Sections III.1-6 of this Minute 319 through 2026.

The specific binational opportunities that have been identified at this time are as follows:

a. Environmental Restoration Project at the Miguel Aleman Site

In 2013, the Commission will begin implementation of a 50-acre (20-hectare) Environmental Restoration Project, with willows, cottonwoods and mesquites, at the Miguel Aleman site located in Mexico near the Colorado River limitrophe reach across from the Hunter's Hole restoration site in the United States.

The total cost of the Environmental Restoration Project is $700,000 dollars, with contributions from both countries. The distribution of works and costs between the two countries has been discussed and proposed by the Binational Environmental Work Group established under Minute 317, and should be formalized in a Joint Report of the Principal Engineers for implementation of the Project.

To develop the activities for this Environmental Restoration Project, the Commission will rely on contracting and/or consulting by environmental institutions from both countries specializing in the matter.

In addition to implementing this Environmental Restoration Project, the Commission will continue to explore other projects and joint cooperative opportunities for environmental restoration in the Colorado River Delta, considering the "Water Needs in the Colorado River Delta" report prepared by the Binational Environmental Work Group under the framework of Minute 306 and Minute 317 of the Commission.

b. Water Conservation Projects

Study and implementation of these projects will require agreement of the two countries through the Commission, and such agreement should be contained in a specific Minute of the Commission:

i. Alamo Canal Regulating Reservoir Conservation Pilot Project
ii. Payment for Taking Agricultural Land out of Production (Fallowing)
iii. Modernization and Technical Improvements to Irrigation District 014

c. Project Associated with System Operations

Study and implementation of this project will require agreement of the two countries through the Commission, and such agreement should be contained in a specific Minute of the Commission:

i. Conveyance of Mexican Water through the All-American Canal (AAC)

This project for consideration of the potential conveyance of Mexican water through the All-American Canal has been identified as a high priority of both the United States and Mexico, and will be the subject of expedited consideration by both countries upon the entry into force of this Minute. The Commissioners took note of the commitment of U.S. entities, led by Reclamation and the United States Section of the Commission, to establish processes and timelines to work through applicable issues that must be addressed for the construction of a connection between the All-American Canal in the United States and Mexico's Colorado River-Tijuana Aqueduct, at Pump Station 0 that, at a minimum, could be used for water deliveries to Mexico in emergency situations.

d. New Water Sources Projects

Study and implementation of these projects will require agreement of the two countries through the Commission, and such agreement should be contained in a specific Minute of the Commission:

i. Binational Desalination Plant in Rosarito, Baja California
ii. Beneficial Use of the New River
iii. Binational Desalination Plant near the Gulf of California (Sea of Cortez)

Finally, the Commissioners took note of the commitment of the U.S. institutions to continue the efforts during the term of this Minute for the development of studies, designs, and other analyses for the potential implementation of additional binational infrastructure

that could generate significant volumes of water to benefit both countries, including but not limited to those enumerated above.

With regard to the above, the Commissioners observed that the binational work groups discussed the projects listed in the table below, which also presents the estimated volume of water that each project will generate. The current estimated cost for those projects is approximately $1,700 million dollars. There is no obligation for any financial participation by the United States, Mexico, or any other party in these projects. Nonetheless, the Commissioners took note that both governments have stated their firm willingness to continue discussion of potentially allotting resources for the development of projects for the conservation and generation of water for mutual benefit.

PROJECT	ESTIMATED ANNUAL VOLUME in thousand acre-feet (mcm)
Miguel Aleman Environmental Restoration	not applicable
Alamo Canal Regulating Reservoir	3.2 (4)
Fallowing Payments	243 (300) one time
Modernization of Irrigation District 014	
First Phase	101 (125)
Subsequent Phases	519 (640)
AAC-Pump Station 0 Connection	to be determined
Rosarito Desalination Plant	56 (69)
Use of the New River	38 (47)
Explore Desalination Plant in Gulf of California (Sea of Cortez)	to be determined
TOTALS	717 (885) annually 243 (300) one time

The Commissioners considered that these quantities were based on preliminary estimates by the binational groups or by the responsible institutions in one country and that they could be subject to adjustments once the details of the respective projects are developed.

The Commissioners noted the intention of the Governments of the United States and Mexico to seek agreement on the development of additional bilateral collaborative projects through an additional Minute to be negotiated during the interim five-year period of the joint cooperative pilot program covering the period between 2013 and 2017, and with the same

implementation horizon until 2026 that has been indicated for a comprehensive Minute that would extend or replace the substantive provisions of this Minute.

The Commissioners considered appropriate the recommendation of the binational work groups that a portion of the water generated in the potential future binational projects be reserved for environmental purposes and that any beneficiaries of binational projects will assume appropriate responsibility for the necessary actions to comply with the salinity limits of Minute 242.

Based on the above, the Commissioners submit the following resolutions for the approval of both governments:

1. The cooperative measures first established in Minute 318 shall be extended through December 31, 2017 consistent with the provisions of this Minute, including Section III.1.

2. Distribution of flows under high elevation reservoir conditions will be carried out in accordance with the provisions of this Minute, including Section III.2.

3. Distribution of flows under low elevation reservoir conditions will be carried out in accordance with the provisions of this Minute, including Section III.3.

4. Creation and delivery of ICMA and water deferred under Section III.1 will be carried out in accordance with the provisions of this Minute, including Section III.4.

5. Operations addressing salinity regarding creation of ICMA and water deferred under Section III.1 will be carried out in accordance with the provisions of this Minute, including Section III.5.

6. The Water for the Environment and ICMA/ICS Exchange Pilot Program will be carried out in accordance with the provisions of this Minute, including Section III.6.

7. Implementation of International Projects will be carried out in accordance with the provisions of this Minute, including Section III.7.

8. The limitations as to the rates of deliveries specified in Article 15 of the 1944 Water Treaty continue to apply.

9. The United States shall be deemed to have fulfilled its delivery obligations to Mexico under the 1944 Water Treaty for 2013 through 2017, notwithstanding any reduction or adjustment of delivery schedules pursuant to this Minute.

10. The Commission will apply the procedures described in this Minute to implement the above resolutions.

11. The interim measures agreed to in Resolutions 1 to 6 of this Minute will apply through December 31, 2017. However, delivery of any remaining ICMA and/or water deferred under Section III.1 after December 31, 2017 shall be carried out in accordance with the applicable paragraphs in Section III.4.

12. The discussions pursuant to Minute 317 as referenced in Section III.7 of this Minute may consider other joint cooperative actions, taking into consideration potential benefits to both countries.

13. The provisions of this Minute shall not be regarded as a precedent for developing further necessary implementing agreements within the United States, nor for future delivery of Colorado River water allotted to Mexico annually under Article 10 of the 1944 Water Treaty, nor for future salinity management via the mechanism described in Resolution 5 above.

14. The provisions of this Minute do not affect the interpretation or application of the provisions of Article 10(b) of the 1944 Water Treaty, including reduction of water allotted to Mexico under Article 10(a) of said treaty.

15. All activities undertaken pursuant to this Minute shall be subject to the availability of funds, resources, and corresponding personnel, as well as to applicable laws and regulations in each country.

16. This Minute shall enter into force upon notification of approval by the Government of the United States of America and the Government of the United Mexican States through the respective Section of the Commission.

The meeting was adjourned.

Edward Drusina
U.S. Commissioner

Roberto F. Salmón Castelo
Mexican Commissioner

Sally E. Spener
U.S. Section Secretary

José de Jesús Luévano Grano
Mexican Section Secretary