(English text of Minute 223 dated November 30, 1965)

INTERNATIONAL BOUNDARY AND WATER COMMISSION UNITED STATES AND MEXICO

> El Paso, Texas, November 30, 1965

## MINUTE NO. 223

## MEASURES FOR SOLUTION OF THE LOWER RIO GRANDE SALINITY PROBLEM

The Commission met in the offices of the United States Section in El Paso, Texas, at 12:00 o'clock, November 30, 1965, in order to consider the measures to be recommended for solution of the problem of salinity of the waters of the Lower Rio Grande.

The Commission reviewed the nature of the problem and the measures studied to resolve it, which may be summarized as follows:

The saline return flow waters which reach the Lower Rio Grande from irrigated lands on its banks increase the salinity of the waters of the said river, most of which come from Falcon Reservoir. During the frequent periods in which releases of water at Falcon Dam are low, the salinity of the waters of the Lower Rio Grande increases to levels which should be corrected to the extent practical in order that the waters can be satisfactorily used for domestic and municipal purposes and for irrigation.

Some alleviating measures have been put in practice pending completion of studies of other measures for solution of the problem, focusing attention on the saline waters of the Mexican El Morillo Drain, which are the waters contributing in greatest proportion to increase the salinity of the waters of the Lower Rio Grande. The measures studied include discharge of dilution waters from Falcon Reservoir, and with relation to the waters of El Morillo Drain, their occasional diversion to Anzalduas Canal, the regulation of their discharge to the Rio Grande, and their partial or total by-pass to the Gulf of Mexico.

The Commission then considered that El Morillo Drain waters, because of their high salinity, despite the fact that they increase the volume of Lower Rio Grande waters, do not increase their beneficial value but on the contrary diminish that value; and that it is of interest to the two countries to preserve the beneficial value of the waters of the Rio Grande by avoiding or correcting their high salt concentrations to the extent it may be practical to do so.

After considering the various aspects of the problem and the different alternative solutions studied, the Commission adopted the following resolution, subject to the approval of the two Governments: 1. That a canal or drain be constructed through Mexican territory, of a length of approximately 23 miles (37 kilometers) and having capacity of 106 cubic feet (three cubic meters) per second, which will permit discharge to the Gulf of Mexico of the waters of El Morillo Drain, utilizing the systems of agricultural drainage in Mexico to the extent this may be practical. All the structures and pumping plants which it may be deemed necessary to construct or install in this canal or drain shall form a part thereof.

2. That a structure be constructed in El Morillo Drain to divert the flows of that drain, and of other drains which it may be practical to connect to El Morillo Drain, to a flow of 106 cubic feet (three cubic meters) per second into the canal or drain referred to in item 1 of this resolution. This structure should allow flows exceeding 106 cubic feet (three cubic meters) per second to be discharged to the Rio Grande, which is ordinarily expected to occur at times when surface waters enter El Morillo Drain because of rain.

3. That the complementary works which the Commission may consider it practical to execute, be constructed to connect another drain or other drains to El Morillo Drain, in order to also permit the discharge of such other drain or drains to the Gulf of Mexico.

4. The canal or drain and structures and pumping plants referred to in item 1, the structure referred to in item 2, and the complementary works referred to in item 3 of this resolution shall be constructed by Mexico, in the understanding that pursuant to the interests of each of the two countries in obtaining the benefits of a solution of the problem, the costs of construction, including cost of design and right of way, shall be equally divided between Mexico and the United States.

5. That flows of El Morillo Drain and of other drains that may be connected thereto, up to a maximum flow of 106 cubic feet (three cubic meters) per second, be by-passed to the Gulf of Mexico by means of the works referred to in items 1, 2 and 3 of the present resolution, except when the inflow of surface waters to that drain is abundant and the Commission agrees to reduce the by-pass flow.

6. The operation and maintenance of the canal or drain and the structures and pumping plants referred to in item 1, the structure referred to in item 2, and the complementary works referred to in item 3 of this resolution shall be performed by Mexico and the costs shall be divided between Mexico and the United States in the same proportion as the division of the construction costs. For this purpose, the appropriate agencies of Mexico shall annually deliver to the Mexican Section of the Commission the statement of the actual costs of operation and maintenance which, when reviewed by the Commission and corrected if necessary, shall serve as the basis for determining the portion of such operating and maintenance costs to be paid by the United States.

7. The design, construction, operation and maintenance of the works referred to in the present resolution shall be under the supervision of the Commission.

8. Construction of the works referred to in the present resolution shall not confer upon either of the two countries any rights of property or of jurisdiction over any part whatsoever of the territory of the other.

9. The Commission shall make the necessary observations to determine whatever changes the conditions of the problem may undergo in the course of time and, if it considers it advisable to do so, recommend to the two Governments by means of a Minute, the measures which it may be appropriate to take.

10. Although the Commissioners concur in the above engineering findings, each desires to make more detailed studies of the costs and benefits and to consult the appropriate agencies of his country before reaching decision concerning the project which should be recommended as a joint undertaking by the two Governments. It is therefore understood and agreed that adoption of this Minute by the Commission and the approval thereof by the two Governments do not commit either Government to construction of works or to expenditure of funds for any works.

The meeting then adjourned.

(signed) J. F. Friedkin Commissioner of the United States (signed) D. Herrera J. Commissioner of Mexico

(signed) Louis F. Blanchard Secretary of the United States Sect. (signed) Fernando Rivas S. Secretary of the Mexican Section