

INTERNATIONAL BOUNDARY AND WATER COMMISSION  
UNITED STATES AND MEXICO

MINUTE NO. 264

Ciudad Juarez, Chihuahua  
August 26, 1980

RECOMMENDATIONS FOR SOLUTION OF THE  
NEW RIVER BORDER SANITATION PROBLEM  
AT CALEXICO, CALIFORNIA - MEXICALI, BAJA CALIFORNIA NORTE

The Commission met in the offices of the Mexican Section in Ciudad Juarez, Chihuahua at 11:00 a.m. on August 26, 1980, to review studies made and to formulate recommendations for solution of the New River border sanitation problem at Calexico, California - Mexicali, Baja California Norte.

The Commission referred to President Carter's and President Lopez Portillo's joint statement released following their meeting on September 28-29, 1979, with special reference to the part which reads, "The Presidents recalled that last February they had instructed the International Boundary and Water Commission to recommend measures that might be adopted within the context of existing agreements to achieve further progress towards a permanent solution to border sanitation problems. The Presidents reviewed the recommendations submitted by the Commission and found them satisfactory as a basic agreement for solution of border sanitation problems. The Presidents asked the Commission to proceed as soon as possible to conclude the supplementary recommendations for completion of the works required to provide the good quality water which they had recognized in February to be so important for the health and well-being of the citizens of both countries living and traveling in the border area."

The Commission also referred to recommendation No. 4 of Minute No. 261 which provides: "That for each of the border sanitation problems, the Commission prepare a Minute for the approval of the two Governments, in which there would be included, identification of the problem, definition of conditions which require solution, specific quality standards that should be applied, the course of action that should be followed for its solution, and the specific time schedule for its implementation."

The Commission having studied each one of the existing border sanitation problems, agreed that the New River problem is the most urgent and should be the first to be resolved for the benefit of the health and well-being of the citizens of both countries.

The Commissioners noted that all of the waste waters from the rapidly growing city of Mexicali, including among these treated and untreated domestic waste waters as well as industrial waste waters, are discharged into the New River, which crosses the boundary from Mexico to the United States at Mexicali, B.C.N. and Calexico, California and flows northward to discharge into the Salton Sea. They studied the recent records of analyses of samples of the New River waters at the international boundary which attest to the serious threat that the waters of the New River pose to the health and well-being of the inhabitants on both sides of the border and which impair the beneficial uses of these waters.

The Commission referred to the joint engineering meeting held in the offices of the Mexican Section in Cd. Juarez, Chihuahua on May 30, 1980, in which, in addition to the Commissioners and Engineers of the two Sections, the following Technical Advisors participated:

For the United States Section: Engineer Clyde B. Eller, Director, Enforcement Division, Regional Office, San Francisco, California and Engineer Eloy R. Lozano, Assistant to the Regional Administrator, Dallas, Texas, both of the Environmental Protection Agency, and Consulting Engineer Dennis A. O'Leary of San Diego, California.

For the Mexican Section: Engineer Ignacio Villela Beltran, Subdirector for Potable Water and Sewerage Projects, Secretariat for Human Settlements and Public Works; Engineer Mario Solano Gonzalez, Director General for Sanitation of Waters, Sub-Secretariat for Environment Improvement, Secretariat of Health and Assistance; Engineer Jose Luis Calderon P., Subdirector for Engineering, and Engineer Francisco Bahamonde Torres, both of the General Directorate for Ecological Order and Protection, Secretariat of Agriculture and Hydraulic Resources; and Consulting Engineers, Dr. Ernesto Espino De la O. and Dr. Hector R. Mendoza of Mexico City, D.F.

The Commission then reviewed the studies made by the Mexican Technical Advisors and their proposals for a solution to the problem, as presented in the joint engineering meeting.

The Commission agreed with the proposal of the Mexican Technical Advisors that the permanent solution to the problem should have as its goal the elimination of domestic and industrial waste waters in the New River at the boundary and that this solution could be achieved through necessary action by Mexico to eliminate the discharge of such waste waters to the New River by construction of the necessary pumping facilities and pipelines to convey them southwestward, away from the border. The Commissioners agreed on the need for providing sufficient capacity in the proposed works and to take the necessary measures for their future expansion to meet the needs of the rapid growth of the city of Mexicali.

The Commission agreed that essential to an effective permanent solution would be the installation of adequate standby equipment for use at times of breakdowns as well as implementation of a comprehensive operation and maintenance program to include preventative maintenance measures.

The Commissioners noted the advice of the Mexican Technical Advisors that the design of the works for the permanent solution could be completed by the end of 1981 and that their construction could be completed in 1983, subject to the Mexican Government's appropriation of the needed funds.

Taking into account that the permanent solution to the New River problem cannot be immediate, the Commission reviewed the understandings resulting from the joint engineering meeting with reference to the water quality standards that could be met in the interim period until a permanent solution is achieved, and to the necessary works to be constructed, operated and maintained to meet those standards. The Commission agreed that the qualitative and quantitative standards for the New River acceptable to both countries in the interim period are as follows:

Qualitative Standards for the New River at the International Boundary-  
Interim Solution

1. The waters of the river shall be free of untreated domestic and industrial waste waters.
2. The waters shall be free from substances that may be discharged into the river as a result of human activity in concentrations which are toxic or harmful to human, animal or aquatic life or which may significantly impair the beneficial uses of such waters.
3. The waters of the river shall be essentially free from trash, oil, scum, or other floating materials resulting from human activity in amounts sufficient to be injurious, unsightly, or to cause adverse effects on human life, fish, and wildlife. Persistent foaming shall be avoided.
4. The waters of the river shall be free of pesticides in concentrations which could cause harmful effects to human life, fish, and wildlife.
5. The channel of the river shall be free of residual sludge deposits from domestic or industrial wastes.

Quantitative Standards  
(Applicable at indicated sampling location)

Time For Achievement:	<u>Monthly Average Values</u>		
	<u>Immediately</u>	<u>Within 3 Months</u>	<u>Within 20 Months</u>
Sampling Location:	<u>1</u> (New River at Boundary)	<u>2</u> (Lagoon Discharge Canal)	<u>3</u> (New River Upstream of Discharge Canal)
<u>Parameters</u>			
BOD <sub>5</sub>	--	30 mg/l filtered	30 mg/l unfiltered
COD	--	70 mg/l filtered	100 mg/l unfiltered
pH	6.0 to 9.0	--	--
DO	5.0 mg/l*	--	--
Fecal Coliform Organisms	--	--	30,000 colonies per 100 ml, with no single sample to exceed 60,000 colonies per 100 ml

\* Dissolved Oxygen of 5 mg/l considered as an objective for first 20 months and thereafter as a standard.

The Commission agreed to review the water quality standards for the interim period at 12-month intervals from the date of approval of this Minute and to recommend to the two Governments such modifications as appear warranted.

The Commission reviewed the measures proposed by the Technical Advisors of Mexico to achieve compliance with the quality standards in the interim period and the schedule for their completion. The Commission agreed that the major part of the necessary works are now under construction and the necessary actions and schedule to complete them and the remaining parts are as follows:

- a. Complete construction of five additional oxidation lagoons at the site of the existing lagoons by September 1980.
- b. Dredging of the existing lagoons by the middle of 1981.
- c. Complete construction of new aerated oxidation lagoons southeast of Mexicali to treat domestic and industrial waste waters from the industrial area of Mexicali by the end of 1980.
- d. Elimination of all remaining discharges to the New River of untreated domestic and industrial waste waters, including those from feed lots, by expanding the collection system as needed as soon as possible and not later than July 1982.
- e. Installation of pumping equipment with adequate capacity and related works to include standby units at each of the two existing pumping plants, to guard against discharges of untreated waste waters to the New River, as soon as possible and not later than June 1981.

The Commission agreed that to prevent the discharge of untreated waste waters into the New River, it is essential for the interim solution that in addition to the installation of standby pumping equipment, there be adopted and implemented a comprehensive preventative maintenance program that includes availability of necessary spare parts.

The Commission then studied the joint program of monitoring that the two Sections put into practice to establish a record to enable review and evaluation of the results of the operation and maintenance of the works constructed for the interim and permanent solutions.

For the interim period, samples should be taken and analyzed in the following manner:

Location and Frequency of Sampling  
For Interim Period

Parameters	New River at Boundary	Discharge Canal from Lagoons	New River Upstream of Discharge Canal
BOD <sub>5</sub>	--	Monthly grab sample	Monthly 12-hour composite sample*
COD	--	Monthly grab sample	Monthly 12-hour composite sample*
pH	Weekly grab sample	--	--
DO	Daily grab sample	--	--
Fecal Coliform Organisms	--	--	Weekly grab sample

\* Twelve consecutive hourly samples once a month (24-hour composite to be taken as needed to establish correlation with 12-hour composite).

It was agreed that for the permanent solution, samples should be taken of the New River waters at the international boundary monthly or more frequently if necessary, and these should be analyzed for BOD<sub>5</sub>, COD, pH, DO, and fecal coliform organisms.

The Commission adopted the following recommendations for the approval of the two Governments:

1. That the studies and plans now being prepared by the competent Mexican authorities for the permanent and definitive solution of the border sanitation problem of the New River at Calexico-Mexicali, with the goal of elimination of domestic and industrial waste water discharges in the New River at the international boundary, proceed as promptly as possible and that the results of these studies and plans be presented to the Commission by late 1981 for its consideration and approval, together with the corresponding schedules for carrying out the works found to be necessary.
2. That for the interim period before implementation of the permanent solution, water quality standards be adopted as specified in this Minute and the works required to achieve compliance with those standards, as proposed by the Technical Advisors and described hereinabove, be constructed as soon as possible and not later than the dates stated hereinabove.
3. That the works for the interim solution as well as the permanent solution be operated and maintained by Mexico with adequate standby facilities and through implementation of a comprehensive preventative maintenance program to prevent breakdowns which could

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result in the discharge of untreated domestic or industrial waste waters into the New River.

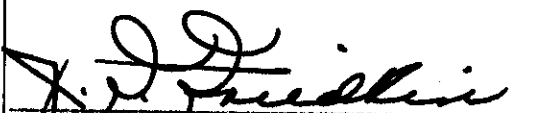
4. That the water quality standards for the interim solution be reviewed by the Commission at 12-month intervals from the date of this Minute and that the Commission recommend to the two Governments modifications as it considers warranted.


5. That the results of the operation and maintenance of the works during the interim period and of the permanent works, be monitored as proposed hereinabove, and the records be reviewed by the Commission to verify compliance with the water quality standards during the interim period and the permanent solution goal of eliminating domestic and industrial waste water discharges at the boundary.


6. That the Commission supervise the construction, operation and maintenance of the works required for the interim period as well as for the permanent solution in accordance with Articles 2 and 24 of the 1944 Water Treaty, and that the Mexican Section have jurisdiction over the works undertaken for this purpose in its country, including their construction, operation and maintenance, in conformance with Article 24 of the 1944 Water Treaty and with recommendation No. 7 of Minute No. 261 of September 24, 1979, approved by the two Governments.


7. That this Minute requires the specific approval of the two Governments.

The meeting was adjourned.

  
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J. F. Friedkin  
Commissioner for the United States

  
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Joaquin Eustamante R.  
Commissioner for Mexico

  
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M. R. Ybarra  
Secretary for the United States  
Section

  
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Lorenzo Padilla, S.P.  
Secretary for the Mexican  
Section