

A COOPERATIVE APPROACH (LATE 1980's)

TREATY MINUTE NO. 274 (ADDING PUMPING/TREATMENT WORKS)

In a January 30, 1987, letter U.S. IBWC announced plans for a joint \$1.2 million dollars New River cleanup project as follows:

"The United States Section of the International Boundary and Water Commission (IBWC) has available from appropriations by the United States Congress, an amount of \$600,000 to be used in a new joint project with the Mexican Government to improve the quality of the New River where it crosses the international boundary.

"Based on this authority, the United States Section has conducted discussions through the IBWC with the Mexican Section for a joint project on the basis of three criteria: 1) that the project be under the supervision of the International Boundary and Water Commission, 2) that the project result in a significant improvement in the water quality of the New River at the International Boundary, and 3) that the cost be shared equally between the United States and Mexico.

"We believe that while the combined \$1.2 million joint project will provide an improvement in water quality by reducing the discharge of untreated sewage into the New River, considerable additional measures are necessary to provide the solution to this long-standing problem, some of which Mexico has underway."

On March 24, 1987, the Regional Board's Executive Officer announced that James M. Montgomery Engineers, Inc., had been selected to prepare a report addressing New River pollution abatement plus the creation of a technical work group as follows:



Figure 75: Gonzalez-Ortega sewage treatment lagoons (Nov 1986)



Figure 76: Discharge of wastes from a sesame seed processing facility (Nov 1986)

"We have recently selected a firm, James M. Montgomery Engineers, Inc., to prepare a report for abating the pollution levels in the New and Alamo Rivers as per California Senate Bill No. 1745. To assist Montgomery Engineers in the preparation of this report, we suggest that a New River Project Technical Work Group be formed. Specifically, it is envisioned that the work group would discuss technical matters concerning the various alternate corrective measures which Montgomery Engineers would be considering."

An April 7, 1987, letter from U.S. IBWC to the Regional Board stated the following:

"As you know, the U.S. Section has the responsibility under the 1944 Water Treaty to deal with Mexico for the solution of the Border Sanitation problems, so that any meaningful pursuit to reduce pollution in Mexico in the Alamo and New Rivers must be through the International Boundary and Water Commission. The International Boundary and Water Commission has long practiced that each Section deal with those interests in its own country; it would not be appropriate to seek Mexican participation in the work group. However, as we have practiced in the past and as it may be appropriate, I would be pleased to seek from Mexico, visits by the work group to the Mexicali sanitation works."



Figure 77: Discharge from City slaughterhouse (Nov 1986)



Figure 78: Pumping Plant No. 1 (Nov 1986)



Figure 79: Pumping Plant No. 2 (Mar 1987)

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On May 13, 1987, Minute Treaty Agreement No. 274 entitled Joint Project for Improvement of the Quality of the Waters of the New River at Calexico, California -- Mexicali, Baja California became effective and in general provided for the following:

"The agreement provides for construction by Mexico, in Mexicali, and undertaking of three features, construction of a new pumping plant, acquisition of two standby pumps and motors for existing pumping plants, and acquisition of sewer line cleaning equipment to be carried out at an estimated cost of \$1.2 million dollars U.S. currency, of which the U.S. will provide \$600,000. The features are designed to provide but a small improvement in the water quality of the New River at the international boundary, and therefore, we recognize that the features contribute but a small part to the overall problem of contamination in the New River, resulting from waste water discharges in Mexicali, Baja California."

The agreement also provided:

"That upon completion of the features considered in the jointly funded project, the Government of Mexico through the Government of the State of Baja California operate and maintain the constructed works, and carry out the preventative maintenance program for the collectors and pumping plants."

On August 6, 1987, a letter from the Regional Board's Executive Officer to U.S. IBWC cited the following concerns:

"According to the Yuma office of IBWC, 8-10 mgd of raw sewage is presently being bypassed from Mexicali's North Collector to the New River. Apparently this bypass began over a month ago because of a break in the North Collector line. It was our understanding that Mexico would correct this problem promptly, but according to the most recent information received, it now appears that the necessary repairs will be delayed indefinitely, pending availability of



Figure 80: Effluent from Mexicali sewage treatment lagoons (Mar 1987)



Figure 81: Distribution system for effluent irrigation from Mexicali sewage treatment lagoons (Mar 1987)

funds. Please keep us apprised of this most serious situation, and impress upon Mexico our concern...In a related matter, we have been advised that Mexico intends to replace sections of the deteriorated North Collector pipeline as funding becomes available, until the entire line is reconstructed. During the construction work, raw sewage would reportedly be bypassed to the New River. Although we commend Mexico's resolve to upgrade the North Collector, we question if it is necessary to bypass raw sewage during the construction. Would it not be more effective to lay new pipeline parallel to the old line, thus avoiding any sewage bypass?"

A Regional Board staff report covering a binational inspection in Mexicali on November 2, 1987, contained the following:

"In summary, there appears to be very little reason for optimism that conditions will improve in the New River in the near future, based on this inspection. To the contrary a myriad of problems are apparent which could rapidly lead to a substantial decline in the quality of New River water at the boundary. I seriously question the extent of Mexico's intent to resolve New River pollution problems, based on the present deplorable condition of the sewage collection system, pumps, and treatment system, and also on the present indiscriminate and intentional disposal of solid waste into the river channel."



Figure 82: Sewage lagoon expansion at Gonzalez-Ortega (Jul 1987)

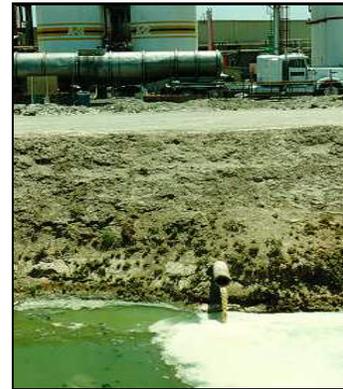


Figure 83: Discharge from Conasupo (Jul 1987)

In a November 18, 1987 letter from U.S. EPA to the Regional Board, the difficulty in pursuing correction of Mexicali's pollution within the United States was expressed thusly:

"We, of course, recognize the difficulty and futility of trying to treat the flows of an

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entire river, the task seeming futile when one considers how much easier it would be to stop the pollution at its source. We understand the sense of frustration that has resulted from trying to get Mexico to deal with its pollution problems. Nonetheless, we still feel that the only feasible solution to the problem lies in abating the pollution at its source and are encouraged by recent progress that has been achieved in the Tijuana/San Diego area. Our hope is that with new leadership at the International Boundary and Water Commission and rekindled interest from the State of California and EPA, sensible and economically feasible solutions within Mexico can be attained."

In a January 26, 1988 transmittal letter, the State Board submitted the following comments to State Senator Bergeson:

"I am transmitting a copy of a Phase I Report on Pollution Abatement for the New River which was prepared in accordance with your legislation, Chapter 1468, Statutes of 1986. The report, prepared by James M. Montgomery, Consulting Engineers, recommends implementation of specific control measures beginning with a screening facility near the International Boundary to remove trash and debris from the entire flow of the New River. Additional control measures include chlorination for disinfection, aeration to eliminate septic conditions and fencing to restrict public access to the New River through the City of Calexico... As an alternative to chlorination, we believe that wetlands treatment and sedimentation within the channel of the New River can offer a low cost and environmentally sound method of pathogen and organics removal. Such treatment should be piloted in the New River channel over a two-year period. The preliminary construction estimate for all the proposed facilities recommended in the New River Report is \$41,000,000 in 1987 dollars. In accordance with these recommendations, we request that \$325,000 be made available as soon as possible for Phase II study of chlorination, aeration and wetlands treatment and \$1.2 million for the design of a screening facility and preparation of an Environmental Impact Report."



Figure 84: Construction of treatment works at Quimica Organica (Jul 1987)

A similar letter was mailed to U.S. EPA requesting attention to this problem.



Figure 85: Wastewater basins at Fabrica de Papel S.F. (Jul 1987)



Figure 86: Discharge from Fabrica de Papel S.F. (Feb 1988)

In a May 10, 1988 letter, the Chair of the Regional Board expressed the following concerns to the Administrator of U.S. EPA:

“Although initial efforts by the EPA to address the New River pollution problem with Mexico seemed promising, the apparent lack of any significant progress over the past several years is disappointing, and continues to be a growing concern to our Board...our routine monitoring of New River water quality near the International Boundary shows fecal coliform levels extending into the millions of MPN/100 ml of sample, and sewage solids are often plainly visible in the river water...In view of this concern, the Board requested that I forward a letter to you requesting a status report on the EPA-SEDUE endeavors in regards to New River, and what your plans are for at least the immediate future, as well as the current long-term actions proposed to be taken to meet the objectives/goals expected under the Presidential Agreement. We also request your forthright responses to the following questions:

- “1. Does SEDUE have the resolve and authority to bring about significant abatement of New River pollution in Mexico? If so, why do major sewage and industrial waste problems remain unresolved? For example: does SEDUE have any authority to control industrial waste discharges, to correct the sewerage problems, and to relocate the garbage dump at a location away from New River and its tributaries, including dry washes?*
- “2. Does a realistic framework exist within the August 14, 1983, Agreement to obtain significant correction of the New River pollution problem?*
- “3. Specifically, what are EPA’s future plans to address the New River problem; and what resources will be allocated to follow through with those plans?*

"4. Is there a time frame that EPA-SEDUE is working under to produce the necessary corrective actions expected under the Presidential Agreement?" [1]

A June 27, 1988, letter from U.S. EPA to the Regional Board Chair reported the following:

"EPA has reviewed the pollution problems in the New River caused by Mexicali municipal and industrial waste discharge with SEDUE at several past Water Work Group meetings under the 1983 Agreement. SEDUE has expressed its commitment to correcting these problems, and offered a number of tentative schedules, but for various reasons, including the unavailability of funding, have delayed putting adequate controls in place. They have acknowledged their own frustration over these problems, for public health reasons. A new environmental law passed in January 1988 should expand SEDUE's programs and enforcement capabilities."



Figure 87: Conasupo plant (Apr 1988)

An overview of the New River pollution in Mexicali was prepared by U.S. IBWC in August, 1988, and contained the following:

"The main treatment system went into operation in 1976 with 8 lagoons. In 1981, 5 additional lagoons were placed in operation. In 1985, Mexico cleaned one primary lagoon. All 13 of the Mexicali lagoons have been in use since July 1986...This system usually receives about 21 mgd and was designed to treat 23 mgd. Effluent does not meet EPA secondary treatment standards. Appropriate industrial waste-water pretreatment, sludge removal, internal flow distribution changes, and chlorination would each improve effluent quality...In 1984, effluent from the Mexicali lagoons was experimentally applied to 20 acres. They are currently irrigating about 120 acres of barley and wheat. There are plans to eventually reuse all of the effluent for crop irrigation. Possible obstacles to these plans include salinity buildup in the soils, increased disease potential from mixing the effluent with canal water and reluctance of the farmers to use it."

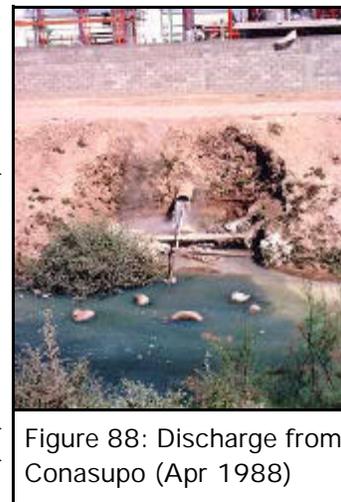


Figure 88: Discharge from Conasupo (Apr 1988)

¹ The Presidential Agreement is the August 14, 1983 La Paz Agreement.



Figure 89: Color difference in effluent from Mexicali lagoons indicates disparity of treatment in lagoon cells (Apr 1988)



Figure 90: Replacement of worn pump at Pumping Plant No. 1 as part of joint U.S./Mexico \$1.2M project (Feb 1988)

“Southeast of Mexicali, four new aerated lagoons were constructed and placed into service for the Gonzales-Ortega area in December, 1980. This system, with a design capacity of 0.3 mgd, quickly became overloaded. The present flow is about 3 mgd.

“In June 1987, Mexico began construction of four additional aerated lagoons at this site, which will increase the treatment capacity to 3 mgd. As of June 1988, all earthwork was completed and an internal piping system installed.

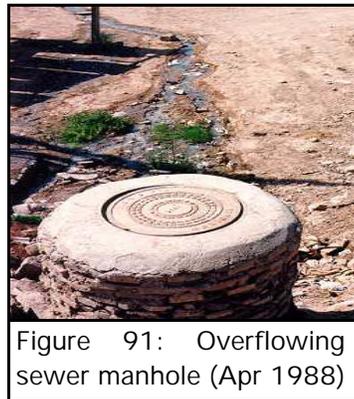


Figure 91: Overflowing sewer manhole (Apr 1988)

“Collected sewage enters Pumping Plant No. 2 by gravity and by the small Right Bank Pumping Plant delivering flows from the North Collector. Pumping Plant No. 2 lifts the sewage to Pumping Plant No. 1, which in turn lifts that load and other inflows to the main oxidation lagoons. Both pumping plants have suffered numerous breakdowns with resultant bypasses of untreated sewage to New River. Motors, pumps, and valves are being rehabilitated under IBWC Minute No. 274...The Mexicali sewage collection system is in need of rehabilitation and expansion. The North Collector system which is a major collector serving the northeast area of Mexicali has suffered numerous breakdowns. Mexico is currently replacing 8,800 feet of that collector line with 42" PVC pipe and work was estimated to be 50% complete on July 20, 1988. Whenever the North Collector is out of service, flow of approximately 12 mgd is dumped untreated from it to Drain 134, thence to the New River. There are numerous small discharges of untreated sewage to New River and its associated drains wherever the collector lines are overloaded, blocked or unsewered.

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"A solids separating screen was installed at the municipal slaughterhouse in 1979; however, it became inoperable in February 1985. During its outage, the waste material from the slaughterhouse including blood, guts, and other animal parts were discharged directly to New River...As a result



Figure 92: Raw sewage bypassing at Pumping Plant No. 2 (Oct 1988)



Figure 93: Raw sewage coursing through Mexicali streets before spilling into New River (Oct 1988)

of a diplomatic note sent from the United States Department of State to Mexico's Secretariat of Foreign Relations on July 9, 1987, Mexico installed a new solids separator and pumping system at the slaughterhouse. This new system went into operation November 16, 1987. The solids are hauled away and the liquid waste goes to the sewer.

"(Quimica Organica)--First stage treatment works were completed in November 1984. Second stage treatment works (oxidation lagoon) were completed in December 1987 and are now in operation. According to Mexican officials, work was completed in June, 1988 of an on-site treatment facility begun in late 1987. As of July 1988, this facility is not in operation.

"In 1985, Mexico relocated a dump from the banks of New River, which eliminated a direct-pollution problem. However, a new dump has been started about one mile from the old dump on a drain to New River which will result in water pollution problems similar to its predecessor. SEDUE has rechanneled drain flow to the extreme southside of the area and covered some of the area with clay material; dumping continues on top of this clay layer."



In a progress report received from the U.S. IBWC Commissioner Gunaji¹ it was reported that:

“Dedication ceremonies for all Minute No. 274 facilities held on November 29, 1988, were attended by both Commissioners of the IBWC along with other officials from both countries. Under this project, rehabilitation of Pumping Plant No. 2 has been completed and the bypass stopped. Wetwell construction at the new Pumping Plant No. 1A is about 60% complete. Approximately 80% of the discharge pipe to convey the sewage from Pumping Plant No. 1A to the lagoons has been installed. SEDUE officials advise that construction will be completed by the end of December.”



Figure 96: Construction of Pumping Plant No. 1A--now Pumping Plant No. 3 (Oct 1988)

In a transmittal letter of January 31, 1989, State Board staff made recommendations for addressing a wide array of New River pollution problems in Mexicali, some of which are summarized below:

- Mexicali Drain wastewater should be collected and diverted into treatment lagoons proposed south of Mexicali.
- Drain 134 should be diverted into the Mexicali sewer collector system.

¹ Narendra N. Gunaji served as U.S. IBWC Commissioner from April 27, 1987 to May 31, 1994.

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- Foam suppression needs to be addressed either by rehabilitating and maintaining a system in Mexico or constructing a facility in Calexico.
- Abandon the overloaded Gonzalez-Ortega lagoons and treat the wastewater at the proposed Mexicali II treatment plant.
- Implement improvements at the Mexicali I lagoons including flow distribution, water quality monitoring, debris removal, overload prevention, and irrigation reuse.
- Construct a Mexicali II treatment plant adequate to handle cumulative wastewater flow for 20 years.

On February 27, 1989, State Senate Bill (SB) 663 was introduced, which if adopted, would appropriate \$250,000 from California's General Fund to the State Board for allocation to the Regional Board to prepare a phase II workplan, as prescribed, for abating the pollution levels in the New River and the Alamo River, to be completed by January 1, 1991¹.

In a March 28, 1989, letter, the Regional Board's Executive Officer recommended some redirection in the proposed phase II effort as follows:

"Since Montgomery Engineers, Inc. prepared the Phase I New River pollution abatement workplan, significant events have occurred ¾- most notably the implementation of a \$1.2 million joint United States/Mexico project to construct corrective pollution control works within Mexicali. We have always been of the opinion that source control and implementation of corrective measures within Mexico is a vastly more efficient way of correcting the New River problem than attempting to treat the entire river flow within California. Because of the events that have transpired, I suggest that the focus of the Phase II workplan be shifted from that of the Phase I workplan in view of the now apparent potential for correcting all or most of the problem within Mexico... In the Phase I workplan, Montgomery Engineers, Inc. recommended the following projects for implementation:

"Constructing a screening facility for New River at or near the International Boundary.



Figure 97: New River at International Boundary (Oct 1988)

¹ SB 663 did not advance, therefore the funding for this effort did not materialize.



Figure 98



Figure 99

Figures 98 and 99: Renovation of Pumping Plant No. 2 underway (Oct 1988)



Figure 100



Figure 101

Figures 100 and 101: Replacement of concrete sewer lines with PVC pipe along North Collector (Oct 1988)

"Redirecting Mexico's portion of the Alamo River into the New River watershed.^[1]

"Disinfection and aeration of the entire New River flow within California near the International Boundary.

¹ The flow in the Alamo River from Mexico is small - only about 2-5 cfs.

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“Development and evaluation of a pilot wetlands project to determine effectiveness in treating New River water.

“Although we are not unsupportive of these projects, at this time we believe that the need for the screening facility is less than it was previously, due to the potential now for source control in Mexico. We remain highly supportive of the Alamo River redirection, but believe that the project could most expeditiously be implemented within Mexico, and are working with the International Boundary and Water Commission and the State Water Resources Control Board toward this. The disinfection and aeration of the entire New River flow would require considerable resources, and there are questions of safety in utilizing the chemicals required for disinfection, so at this time we suggest that resources may be more effectively directed elsewhere... Realizing the potential for corrective actions within Mexico, we believe that Phase II should focus on California-based treatment of New River using wetlands.” [1]



Figure 102



Figure 103

Figures 102 and 103 Raw sewage spill at the International Boundary (Mar 1988)

In May 1989, State Board staff prepared a detailed technical report entitled New River Pollution Abatement --- Preliminary Design Report and Cost Estimate for the IBWC. The report covered the following recommended projects:

¹ The Regional Board's enthusiasm for wetlands treatment of New River waned substantially when a court decision directed at the Penn Mine cleanup in Central California was made finding that a non-responsible party that initiates a goodwill cleanup effort could in effect become the primary responsible party and be charged with total cleanup.

- a. Mexicali No. 1 Lagoon Enhancement
- b. Collection System Rehabilitation
- c. Drain 134 Diversion
- d. Right and Left Bank Collector Replacement¹
- e. Alamo River Diversion
- f. Mexicali Drain Diversion
- g. Mexicali Drain Pump Station Forcemain and Treatment
- h. Mexicali Drain Treatment Disposal Lands
- i. Mexicali No. 1 Reclamation Lands
- j. One-half of Mexicali South Collection System
- k. Mexicali South Influent and Effluent Canal
- l. One-half of Mexicali South Lagoons and Reclamation
- m. Gonzales-Ortega Pump Station and Forcemain
- n. Effluent Diversion to Laguna Salada
- o. Complete Mexicali South Collection System
- p. Mexicali South Lagoons and Reclamation



Figure 104: Screen to reduce foam at Mexicali effluent outfall to New River (Jul 1989)

The State Board report also included the following summation:

"The projects will abate most current and future public health and pollution hazards associated with the New River in Mexico and the United States. The projects are low cost, reliable solutions to the most critical problems which exist or are anticipated. If constructed, the projects will allow for continued industrial development and population growth in the Mexicali metropolitan area while reducing the public health threat on both sides of the border. Finally, the projects provide a means for Mexico to maximize its use of freshwater supplies from the Colorado River."

A letter of June 22, 1989, from California Governor Deukmejian to U.S. Secretary of State Baker made the following request:

"I understand you will be attending a meeting in Mexico City in August with Fernando Solana Morales, Mexico's Secretary of Foreign Relations, in advance of a meeting between the Presidents of the United States and Mexico. I urge that you include on your agenda discussion of the water quality problems in California associated with sewage flows from Mexico into the Tijuana River and New River. I further request that specific solutions to these problems be elevated to discussion and agreement between President Bush and President Salinas."

¹ These sewage collectors convey sewage from the northern perimeters of Mexicali to Pumping Plant No. 2.

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In a July 14, 1989, update of Mexicali's progress in addressing pollution control, the IBWC Commissioner reported that:

"The old mechanical foam suppresser has been replaced with a metal screen on the effluent drain near the international boundary and it is effective as no foam is moving downstream in New River into the United State."^[1]



Figure 105



Figure 106

Figures 105 and 106: Installation of new sewer pipeline along the east bank of the New River, near A. Reforma. The uphill grade to Pumping Plant No. 2 has made sewage conveyance difficult, leading to line clogging and sewage spills (Jul 1989)

In an August 17, 1989, letter to the U.S. IBWC Commissioner, the Regional Board Executive Officer reported the following:

"I am pleased by the progress being made in Mexicali to resolve the New River pollution problem, particularly the sewage related problems. The actions of the International Boundary and Water Commission in effecting this progress are certainly commendable...One problem which I want to bring to your attention, though, is what appears to be an increasingly ineffective program of solid waste management within Mexicali. It appears that Mexican authorities are now making reasonable progress in New River pollution abatement with this one exception. Although I believe that correction of Mexicali sewage and



Figure 107: Construction of Pumping Plant No. 1A (Jul 1989)

¹ Although this device was more effective than previous devices, some foam continues to be present in the river at the border.

industrial waste discharges to the river are a higher priority than the present solid waste problem, it does seem that Mexico could address the solid waste problem concurrently with the other pollution problems and without affecting the present progress being made in addressing those problems."

A reply from the U.S. IBWC Commissioner dated September 14, 1989, contained the following:

"Although IBWC Minute 264 does address floating trash, etc., it does not provide for the overall solid waste management within Mexicali. Nevertheless, I will discuss the issue with the Mexican Commissioner to see if he can provide any information on Mexico's plans for solid waste management in Mexicali and its impacts on the New River."

On November 15, 1989, the Regional Board's Executive Officer forwarded the following comments on a bill (AB 1598) introduced to address New River pollution abatement:

"The bill would provide resources for enclosing the section of the New River which flows through Calexico. Although this project would not improve the water quality of the river, it would, if designed properly, serve to eliminate the public health hazard and aesthetic problems associated with the river for the length of river covered. The City of Calexico, in consultation with the Department of Health Services, should be instrumental in design/construction/operation of an approved project to best suit the needs of the City...The bill would also provide resources for constructing a defoaming device near the International Boundary. Although Mexico has recently constructed a defoaming device on the Mexican side of the border, which in our opinion has been reasonably effective in controlling foam, there is no guarantee that the device will remain effective in the future. Therefore, the prudent course of action should be to install a defoaming device on the California side of the border."

In a December 21, 1989, letter to Governor Wilson, the U.S. IBWC Commissioner provided the following information:

"In 1988 and 1989, the United States and Mexico through the International Boundary and Water Commission carried out a jointly funded \$1.2 million project to obtain some improvement in the quality of the waters of the New River. The project consisted of construction of a new pumping plant, rehabilitation of old pumping plants, and acquisition of truck-mounted sewer line cleaning equipment. In addition, Mexico replaced and repaired portions of the North Collector Line, thereby reducing a major source of pollution to the New River...Mexico has indicated a strong interest in participating in additional joint projects. The U.S. Section, IBWC, in cooperation

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with the Environmental Protection Agency and the State of California, has identified a number of possible joint projects. In all cases, these agencies agree that the least expensive and most effective solution is to correct the problem at the source in Mexico. The extent of participation in a jointly financed project by the United States, and perhaps the project itself, will be dependent upon financing by Congress. We expect to begin discussions with Mexico on these projects early in 1990."

A February 14, 1990 bill (SB 1999) introduced by Senator Bergeson would require:

"The State Water Resources Control Board shall conduct a pilot study to determine the feasibility of the use of wetlands treatment in improving water quality in the New River. The bill would appropriate \$100,000 for the study."

A March 12, 1990 progress report from the U.S. IBWC Commissioner contained the following:

"The \$1.2 million joint project was placed into service on Thursday, February 22, 1990. This completes work under Minute No. 274. A possible additional IBWC joint project at Mexicali is being studied."

On April 10, 1990, an inauguration/delivery ceremony was held in Mexicali for this project's completion.

An April 23, 1990, letter from the Regional Board Chair to the U.S. Secretary of State requested the following assistance:

"We believe the need for addressing and resolving the New River pollution problem is urgent, and thus are requesting your assistance in elevating the priority of this long-standing problem. We are encouraged that Mexico has recently accepted U.S. technical and economic assistance toward the successful completion of a joint \$1.2 million U.S./Mexico project to begin to address a cleanup of the New River on the Mexican side of the border. The timing now appears right for implementation of more extensive pollution control projects in Mexico to fully resolve the New River problem. Your assistance



Figure 108: Discharge from City slaughterhouse (Nov 1990)



Figure 109: Worn out pump motor at Pumping Plant No. 1 (Nov 1990)

would be most valuable in gaining the necessary cooperation from Mexican officials for further project implementation, and also in addressing project funding."

Proposition 148, the Water Quality Bond Law of 1990, would support an array of water projects including \$15 million for New River cleanup if approved by California in the November 1990 election¹.

During 1990, the Mexican government relocated the Mexicali City dump to an outlying area where the New River was not threatened².

Assembly Bill 1800 was introduced on March 8, 1991 and if enacted³ would:

"...enact the International Border Wastewater and Toxics Cleanup Bond Act of 1991, which, if adopted, would authorize, for purposes of financing a specified wastewater and toxics cleanup program in the international border region, the issuance of bonds in the amount of \$150,000,000, pursuant to the State General Obligation Bond Law."

In May 1991, U.S. IBWC received a conceptual plan by the Mexican government for addressing the pollution of the New River in Mexicali. The U.S. IBWC Commissioner described the plan and requested some financial support in a letter of July 31, 1991, to Governor Wilson:

"I take this opportunity to inform the State of California that after several years of technical discussions, based in large part on the technical advice of the California Water Resources Control Board and the Regional Water Quality Control Board, Colorado River Region, the International Boundary and Water Commission, United States and Mexico (IBWC), has intensified talks that could result in a United States-Mexico conceptual plan for the solution of the New River border sanitation problem. As I have mentioned to California authorities, the lack of sufficient Mexican financing and adequate binational technical oversight have been obstacles to an effective solution to this long-standing problem. I believe that we now have a real opportunity to overcome these difficulties if certain components of this long term solution could be resulted in corrective actions in other problem areas along the border. In addition to

¹ The Proposition failed.

² Although widespread indiscriminate dumping occurs to this day within the New River watershed, this was a very significant action.

³ The Bill was not enacted.

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informing California authorities of the progress of talks with Mexico, the purpose of this letter is to ask the State of California to explore the possibility of sharing in the costs of works that may be proposed in the New River solution conceptual plan. The Mexican IBWC Commissioner provided a proposal for a conceptual plan to resolve the New River problem. The Mexican proposed plan, which in principle has merit, would: 1) seek to control the problem at the source with the works in Mexicali, Baja California; 2) propose a number of construction and other action components that could be undertaken over a five-year period; and 3) provide a six-month period within which the United States and Mexico would arrange for financing... We estimate that the cost for construction of the nine principal components outlined above would be \$100 million. I would greatly appreciate it if the State of California could advise whether the State would consider exploring the possibility of participating in sharing the cost of the estimated \$100 million conceptual plan components."

The Regional Board supported California's participation in partially financing pollution controls in Mexicali and cited three specific projects of particular importance:

- a. Diversion of Mexico's portion of Alamo River flow into the New River watershed;
- b. Mexicali Drain diversion¹; and
- c. Drain 134 connection to sewage collection and treatment system.



Figure 110: Despite closures, the Mexicali Drain continued to accumulate refuse from upstream City dump sites (Jul 1991)

The State Board likewise supported California's participation and cited the following additional projects of particular importance:

- Conduct performance evaluations of industrial pretreatment plants discharging into the Mexicali Drain. Continuously monitor effluent quality and enhance pretreatment if necessary.
- Implement a systematic program to identify and monitor all industrial waste discharges into the Mexicali collection system.

¹ It was envisioned that the Mexicali Drain would either be diverted out of the New River watershed or contained within evaporation/percolation basins.

- Provide training for Mexicali wastewater personnel in all areas needed to protect New River water quality and to enhance treatment levels from existing or future treatment facilities.



Figure 111: New River at International Boundary (Jul 1991)



Figure 112: Discharge from Conasupo plant (Jul 1991)



Figure 113: Discharge from Quimica Organica (Jul 1991)



Figure 114: Effluent from Gonzalez-Ortega treatment lagoons (Jul 1991)

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Figure 115: Discharge from City slaughterhouse (Jul 1991)

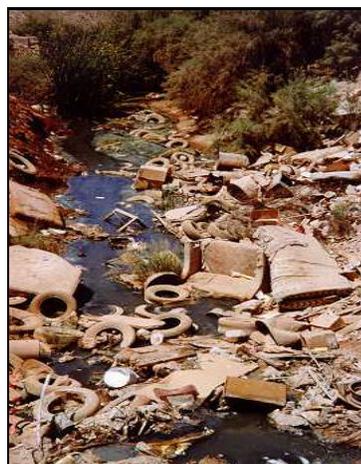


Figure 116: A New River tributary drain (Jul 1991)



Figure 117: Effluent from treatment lagoons--treatment effectiveness is much better during warmer months (Jul 1991)



Figure 118: New River at Calexico; the gauging/water sampling station is to the left (Jul 1991)

On September 24, 1990, Governor Deukmejian approved SB 1999 with an important deletion thusly:

"I am deleting the \$100,000 appropriation contained in Section 2 of Senate Bill No. 1999."

This bill required the State Water Resources Control Board to conduct a two-year water treatment pilot project for the New River in Imperial County and before the Governor's deletion would have appropriated \$100,000 from the General Fund for that purpose. The bill required the SWRCB to report to the Legislature on the findings of the pilot project by April 15, 1993.



Figure 119: Closure of the City dump in Mexicali Drain channel east of the San Felipe Highway crossing (Jul 1991)

On February 6, 1992, the Regional Board was alerted of the following problem:

"IBWC called on February 6, 1992, and reported that the force main between pumping plants 1 and 2 has ruptured. The repair will take up to three weeks and the flow of 10-15 MGD will be bypassed to the New River."

In March 1992, it was learned that Quimica Organica, a major polluter of the New River, was closed by the Mexican government due to a history of chemical spills and accidents¹.

On March 31, 1992, the Imperial County Board of Supervisors adopted a Resolution addressing New River pollution control, stating the following:

"A). The County of Imperial through this Resolution of the Board of Supervisors, is fully committed to support all efforts of the Federal and State Government in conjunction with Mexico, to immediately commence the clean up of the New River; B). The clean up efforts must include...maximum efforts by the U.S. and Mexico, at source reduction of the pollution; C) The treatment facility must be located where the taxpayers who funded the project have an ongoing ability to control the facility; D) The treatment facility must be owned, designed, built and operated to our standards of treatment, and the ongoing control and maintenance should be under direct U.S. control; E) The economic benefits of the construction [of the treatment facility] and ongoing operational employment should be a positive impact for the people

¹ The plant operation remains permanently closed and has slowly been dismantled; the primary concern of the Mexican government appeared to be toward air-borne threats rather than water pollution.

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of the U.S. who funded the project in the first place; F) The benefits of the clean up, in addition to a cleaner river would also provide mitigation efforts for the Salton Sea and provide unlimited recreational opportunities; G) This treatment facility should have the same emphasis and be constructed on this side of the border just as the desalinization plant recently built on the Colorado River near Yuma."

An editorial in the Imperial Valley Press of April 19, 1992, concluded with the following:

"Being realistic, I strongly doubt any one body of government, spurred by even the most enthusiastic leaders, will accomplish a satisfactory and positive conclusion to the New River dilemma. But, if the right people, and for the right reasons, collectively come together from Imperial County, the state of California and our federal government, and each shoulders the responsibility that common decency and financial ability would dictate, we might in our lifetimes, see such a project take place."

On July 21, 1992, a public meeting was held in Calexico by U.S. IBWC to discuss a proposed conceptual plan to resolve the New River sanitation problem. Some excerpts from the minutes of the meeting follow:

"The U.S. Commissioner said the proposed agreement seeks a permanent and definitive solution by controlling pollution of the New River so that the River can be restored to its original Mexican agricultural drainage state. He emphasized that the goal is not to meet a drinking water standard...The solution in Mexico would be performed by construction of specific works in the Mexicali service areas which would be divided in two parts, Mexicali I, the older service area, and Mexicali II the new service area to the east...The IBWC would have a period to assess costs and develop cost distributions and then develop specific construction agreements."



Figure 120: Mexicali Drain at San Luis Highway crossing (Aug 1992)

A number of comments from Imperial Valley residents indicated desire to have a treatment plant to abate New River pollution constructed in the United States.

In September 1992, the U.S. Army Corps of Engineers (Corps) completed an assessment of wastewater collection, treatment and disposal needs for the entire United States/Mexico border region (except Tijuana) for IBWC. The Corps report estimated Mexicali wastewater needs would require a construction budget of \$447,000,000 for 1993-1997. State Board staff prepared comments on the assessment.



Figure 121



Figure 122



Figure 123



Figure 124

Figures 121 through 124: Raw sewage spills into the New River (Aug 1992)

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Figure 125: Drain 134; shortly after this photo was taken, the Drain was encased in an underground pipeline (Aug 1992)

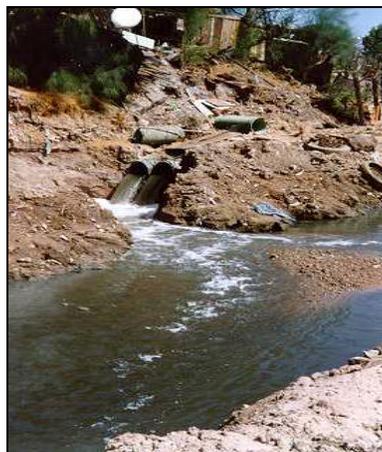


Figure 126: Raw sewage bypass from North Collector to Drain 134 (Aug 1992)

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TREATY MINUTE NO. 288

On October 30, 1992, Treaty Minute No. 288 was signed by IBWC officials. The minute was entitled Conceptual Plan for the Long Term Solution to the Border Sanitation Problem of the New River at Calexico, California -- Mexicali, Baja California and stated the following:

"The Commissioners considered that if the actions and works proposed for the Mexicali I and the Mexicali II systems are carried out within approximately five years in the above-described manner, discharges of untreated or partially treated domestic and industrial wastewaters to waters of the New River will be eliminated. The commissioners also noted the information of the U.S. Commissioner that his Government is willing to participate financially in components of the conceptual plan since improvements of the water quality of the New River to levels acceptable to the United States and Mexico is in the interest of both countries...The Commissioners concluded that regardless of the source of financing, the works planned for the Mexicali I and Mexicali II systems should be designed, constructed, operated, and maintained in a manner that will ensure that no untreated domestic and industrial wastewaters are discharged into the New River or its tributaries and that the effluent from treatment facilities in Mexico have a quality such that the waters of the New River at the international boundary meet the standards that are agreed to by the two Governments in a Commission Minute."^[1]

On November 16, 1992, a meeting was held between representatives of U.S. IBWC, U.S. EPA, and California EPA to discuss implementation of Minute 288. The following was communicated:

"The California Agencies and EPA outlined their views on priority works that would produce the most immediate visible results. All agencies agreed that the United States financial participation be focused on the long-term engineering solution of diverting Mexicali wastewaters outside the New River basin. This amounts to additions to Mexico's basic plans premised on meet-



Figure 127: Attempted collection of fish for toxics analysis in New River at International Boundary (Dec 1992)

¹ In general, the agreement called for rehabilitation of existing sewer lines, pumps, and treatment facilities, and construction of new facilities where needed (i.e. Mexicali II). Mexico would design the facilities to comply with Mexico's standards, but the U.S. would have the opportunity to potentially finance certain components of the project where a higher standard was desired.

ing to the extent possible, the more stringent California standards in the New River at the international boundary. The California agencies and EPA will work with USIBWC over the next few months on standards scenarios."

Regarding water quality standards:

"It was agreed that, initially, standards contained in Treaty Minute 264 should be the objective. Following this, compliance with Mexico's own standards would be the objective. At some (unspecified) time in the future, Mexico should be expected to comply with California water quality standards."

Regarding priority, it was generally agreed during the November 16, 1992 meeting that:

"Initially, raw sewage spills from the left and right bank wastewater collectors, Drain 134 and other sewage spills should be eliminated. These flows were estimated to be 6-7 MGD currently."



Figure 128: Discharge from Kenmex spills into this drain (Mar 1993)

Regarding water quality monitoring, it was also agreed that:

"IBWC would request the establishment of monitoring stations at the following locations:

- "1. Mexicali I lagoon discharge just prior to the New River
- "2. Drain 134 prior to the New River
- "3. Mexicali Drain (which includes the Gonzales-Ortega lagoon effluent) just prior to the New River
- "4. New River prior to the Mexicali Drain confluence"

A Regional Board staff report covering a March 3, 1993, binational inspection in Mexicali contained the following regarding industrial discharges:

"To the immediate south of the Hidrogendora Nacional and Quimica Organica plants a glass factory, 'Vitromex', has opened. The plant is a relatively large operation with several discharge pipes noted spilling into the Mexicali Drain (tributary to New River). One of these pipes was discharging about 10 gpm of clear wastewater with some foam. Also, heavy black oil was observed trickling from a drum into the drain.



Figure 129: One of several discharge points from Vitromex (Mar 1993)

"Another new plant, 'Quipac', was noted directly across the drainageway from the Quimica Organica plant. Two recently installed discharge pipes were observed originating from the plant -- one of these was discharging about 1 gpm. A truck carrying drums of chemicals was parked with corrosive placards. The business is apparently associated with chemicals distribution.

"The usual discharge was noted from the Kenmex plant,^[1] about 5 gpm of clear, gray wastewater. Major development is beginning adjacent to the Kenmex plant, which may be associated with Kenmex. A manhole was being constructed, which indicates a new future discharge source to the Mexicali Drain."

At a May 25, 1993, binational meeting, Mexico reportedly provided the following information on New River pollution control:

- Mexico expects to have the North Collector/Drain 134 sewage overflow problem corrected by early 1994.²
- Mexico reported substantial progress with capturing the domestic and industrial wastes now flowing in various old agricultural drains. These drains were reportedly being replaced with sewer interceptors.³
- Mexico expects to increase agricultural reuse of effluent from the Mexicali I Lagoons, thereby reducing the discharge to the New River.⁴
- Mexico provided the results from an analysis of where the new Mexicali II treatment system would be located. Due to financial limitations, Mexico now proposes to



¹ Kenmex (Kenworth) is an assembly plant for trucks/tractors.

² This was not accomplished and remains a problem to this date.

³ To this date, many problems remain, including some new ones.

⁴ This effort has largely been a failure.

construct these future lagoons on the New River just 12-14 kilometers from the Border. Furthermore, due to this location, no Mexicali II wastewater reuse was expected.¹



Figure 131



Figure 132

Figures 131 and 132: Drums of chemical waste stored in Cierro Prieto area, many of which were of U.S. origin. This was apparently part of a purported recycling effort that was a front for a disposal operation. The waste from the U.S. was returned (May 1993)

On September 15, 1993, the Regional Board adopted Resolution No. 93-130, which requested that:

"1. The International Boundary and Water Commission immediately seek sufficient funding from the governments of the United States and Mexico to implement the pollution control projects specified in Minute No. 288.

"2. The International Boundary and Water Commission continue progress toward developing and implementing corrective projects in Mexicali to address the New River pollution problems as expediently as possible."

In September 1993, Imperial County adopted a proclamation citing the following concerns:

¹ In 1989, the State Board staff recommended locating this plant far enough south that effluent would not reach the New River drainage.

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Treaty Minute No. 288



"...the Board of Supervisors of the County of Imperial does hereby find that conditions of extreme peril to the safety of persons and property have arisen within said county caused by uncontrolled flow of 127,818,864 gallons of raw and inadequately treated sewage and seepage from major garbage dumps, slaughterhouses, and industrial refuse coming across the border daily into the New River in Imperial County; and...the raw sewage causes contamination of the surrounding land and discharges into the Salton Sea in a condition that is incompatible with the ecology and varied public uses of some of California's most important recreational areas, and...this condition constitutes an economic and public health threat which warrants and necessitates the proclamation of the existence of a local emergency."

The proclamation concluded by ordering:

"...that a copy of this proclamation be forwarded to the Governor of California with the request that he proclaim the County of Imperial to be in a state of emergency pursuant to Section 8625 (b) of the California Government Code, and...is further ordered that the Governor of California be requested to provide any available State and Federal aid to help alleviate this emergency condition."

On September 28, 1993, Governor Wilson issued a Proclamation of a State of Emergency regarding the New River.

