

## CHANGING OF THE GUARD (MID 1980's)

### AN UNANNOUNCED VISIT

**A** January 13, 1983, letter from the Regional Board Chair alerted Senator Pete Wilson about the severe New River pollution and made the following request:

*“Our Regional Board would certainly appreciate whatever assistance you can provide to clean up this gross sanitation problem in New River. It would seem very opportune if, on his next meeting with President de la Madrid of Mexico, President Reagan could perhaps impress upon the President of Mexico the need for concerted action to clean up this gross pollution and sanitation problem. Since the aforementioned meeting between Presidents Carter and Portillo produced at least paper agreements, perhaps the next meeting between Presidents Reagan and de la Madrid can set the stage for construction of physical facilities, for training of facility operators, and for Mexico’s enforcement of industrial waste ordinances.”*

A translation of Mexico’s Environmental Protection Code of December 1981 contains the following:

*“Article 21. It is prohibited to discharge into collection systems, rivers, basins, channels, reservoirs, and other repositories or streams of water, or to allow to seep into the soil, untreated waste water containing pollutants, waste, radioactive materials, or any other substance harmful to human health or to flora, fauna, or property.”*  
[1]

From this it was apparent that Mexican law was not deficient in addressing water pollution, but that there was a lack of enforcement.

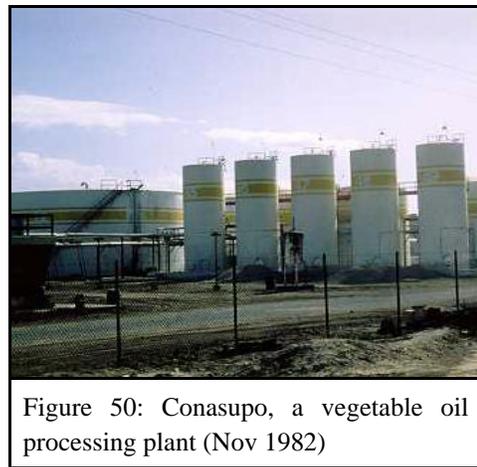


Figure 50: Conasupo, a vegetable oil processing plant (Nov 1982)

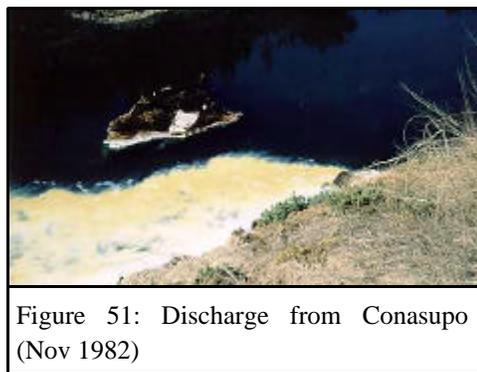


Figure 51: Discharge from Conasupo (Nov 1982)

<sup>1</sup> If this translation is correct, it is assumed that the prohibition to discharge into collection systems pertains to industrial/toxic waste.

On May 20, 1983, the Regional Board sent a letter to the California Department of Health Services requesting:

*“...that the New River be placed on the State Priority List pursuant to the Comprehensive Environmental Responses Compensation and Liability Act of 1980 (CERCLA), P.L. 95-570, so that New River may thereby become eligible for funding assistance from the State and Federal hazardous substance response fund. The Regional Board feels strongly that the immensity of the pollution and contamination problem presented by the hazardous substances in the New River demands that every possible remedy be pursued.”*

A letter from the U.S. IBWC Commissioner to Congressman Al McCandless contained the following:



Figure 52: Floating material skimmed by staff from New River surface during sampling (Aug 1978)

*“In the many years that this Commission has dealt with the problems of pollution of the New River, the Mexican government has never denied a responsibility for the border sanitation problem originating in Mexicali and has undertaken remedial works which have alleviated the problem. In 1976, Mexico completed expansion of the Mexicali collection works and construction of sewage treatment facilities. In the following three years the works were beset by breakdowns. In 1980, following the agreement between the two governments through this Commission, referred to by Mr. Gummer, improvements were effected in the operations which resulted in near compliance in 1981 with the interim standards agreed upon. However incident to the exploding population of Mexicali and breaks in the Mexicali system, the pollution in New River has again exceeded the interim standards creating serious health hazards to the peoples in the area. Since January 1, 1983, the pollution counts in New River (in terms of fecal coliforms) have exceeded the interim standard by 200 to 300 percent. The record of pollution counts is shown graphically on the enclosed chart.*

*“In an effort to resolve the Mexicali problem and the similar problem at Tijuana, I have made repeated representations to my counterpart the Commissioner for the Mexican Section of this Commission urging corrective action by the Mexican authorities. At the higher level of government, the United States Ambassador to Mexico, John Gavin, has made repeated representations to the Foreign Secretary of Mexico urging the earliest possible corrective action. The difficulty as Mr. Gummer stated is that resolution of the problems requires action by the Mexican government involving expenditure of funds. With its serious economic conditions, such action is very hard for Mexico to undertake. Because of this situation, this office, the office of Mexican Affairs in the*

*Department of State, and Ambassador Gavin are exploring options for arranging for the needed actions for solution of the problem.”*

During the week of July 1983, two Regional Board staff members conducted an unannounced field investigation of the New River pollution problem in Mexicali.<sup>1</sup> Some of the significant findings/recommendations appearing in the report are excerpted below:

*“During this investigation, raw sewage was being bypassed directly to the New River at locations where both the north and south collectors cross the river. The discharge near the north collector was located approximately 50 yards north of Pumping Plant 2...and was estimated at 3 cfs. The reason for this bypass is unknown<sup>[2]</sup>. Approximately 5 cfs of raw sewage was being bypassed directly to the New River from the south collector at the Calle Mar Baltico crossing. Again, no reason was apparent for the bypass, other than pumping plant incapacity.*

*“Other discharges of raw sewage to the New River that were noted during this investigation include:*

*“An overflowing manhole at Avenida Baja California crossing (about 1/4 mile south of the International Boundary) discharging approximately 60 gpm to New River;*

*“Approximately 1/2 - 1 cfs discharged from a pipe to Drain 134 near the confluence with New River;*

*“Between the Calle Marina and Independencia crossings (about 1 1/2 miles south of the International Boundary) approximately 20 gpm discharged to New River from housing to the east;*

*“About a 20 gpm discharge to New River from a pipe south of Avenida Independencia crossing (about two miles south of the International Boundary);*

*“A discharge of approximately 20 gpm to Laguna Mexico (part of New River) from a housing development located just east of Club Campestre;*

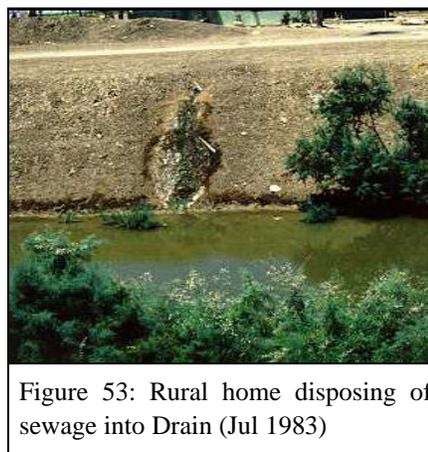


Figure 53: Rural home disposing of sewage into Drain (Jul 1983)

<sup>1</sup> The decision to conduct this unannounced surveillance appears to have succeeded in shaking things up regarding the New River issue and in getting the attention of the appropriate authorities.

<sup>2</sup> This discharge of raw sewage resulted from collector line problems within a segment of the city and was being conveyed via the city’s stormwater system.

*“An approximately 20 gpm discharge from an outlying residential area to a New River tributary drain southeast of Gonzalez Ortega;*

*“Residential development in the southeastern portion of Mexicali is located adjacent to a drain tributary to the New River. About 100 residences border the drain. A number of small wastewater discharges emanate from some of these residences and flow into the drain.*

*“On one occasion, a septic tank pumper was observed discharging septic wastes into a drain tributary to the New River.*



Figure 54: Septage hauler discharging wastes into New River tributary (Jul 1983)



Figure 55: Discharge line from septage hauler (Jul 1983)

*“The most notable toxic waste discharge to the New River emanates probably from Quimica Organica<sup>[1]</sup>, a plant involved in at least the manufacture of PCNB<sup>[2]</sup>, a fungicide, and also reportedly captan (fungicide), thiram (fungicide), propanil (herbicide), a nematocide, and certain rubber products<sup>[3]</sup>. Liquid wastes from the plant are being discharged at two points.*

*“Other industrial waste discharges to the New River and tributaries, which were observed, are the following:*

*“An oily, red/brown discharge of about 15 gpm apparently emanates from one of several nearby agrichemical industries. This is in Industrial Zone IV. No analyses of this discharge have been conducted.<sup>[4]</sup>*

*“Quimicas Industrias (industrial chemicals) had discharged solid chemical wastes on the bank of the drain.*

*“A paper mill, Fabrica de Papel San Francisco SA de CV, discharges about 200 gpm of milky liquid wastes from two pipes to a drain. Dead fish were observed miles downstream from the discharge. Possible wastes in the discharge include sulfite, chlorine, pesticide (slime inhibitor), and other toxic substances.*

*“A cotton gin, Sociedad Cooperativa LEA, discharges a black, oily substance from its cotton seed oil processing.*



Figure 56: Discharge from Quimica Organica (Jul 1983)

<sup>1</sup> This plant produced pesticides and chemicals for rubber products. It was closed in 1992 reportedly because of air quality violations.

<sup>2</sup> Pentachloronitrobenzene.

<sup>3</sup> The rubber-related products referenced were actually the production of chemicals used in processing rubber products.

<sup>4</sup> This discharge has not been recorded since this observation and is believed to have been eliminated or relocated.



Figure 57: Fabrica de Papel San Francisco, SA de CV (Jul 1983)

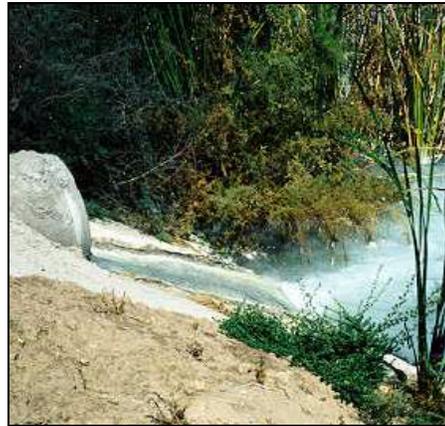


Figure 58: Discharge from Fabrica de Papel San Francisco, SA de CV (Jul 1983)



Figure 59: Mexicali City dump, located in the channel of the Mexicali Drain just west of San Felipe Highway crossing (Jul 1983)

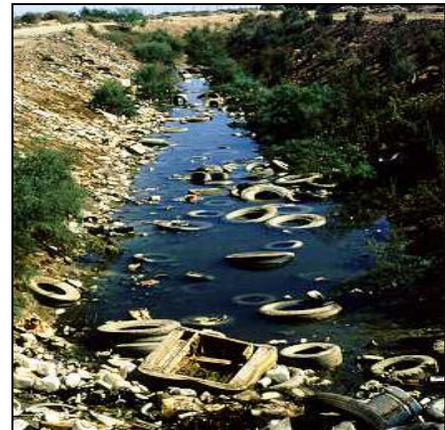


Figure 60: Drains tributary to New River are often used for deposition of refuse (Jul 1983)

*“The main Mexicali dump was formerly located adjacent to the New River, several miles south from the International Boundary. The dump has since been relocated further upstream to the east of Laguna Xochimilco, within the flood plain of a major tributary<sup>[1]</sup> to the New River. The flow in this tributary is somewhat ponded at the dump site, and is situated such that refuse is dumped directly into the water. The flow through the dump site is about 20 cfs. The water is black, obviously anaerobic, and foul-smelling. Numerous city garbage trucks were observed utilizing the dump.*

*“Other, small dumping sites are widespread throughout the New River watershed, particularly in populated areas. In the rural areas, dumping was less severe and was limited largely to household garbage, agricultural refuse, and tires.*

*“In several tributary drains near Industrial Zone IV<sup>[2]</sup>, domestic animals (hogs, cows, poultry) are confined in small pens situated near the edge of the water. Wastes from the pens slough off directly into the drain water. In some instances the animals had access to the water. An estimated 50 such operations exist in this area (each containing from about five to fifty animals).*

*“During the survey, several dairies were observed in the New River watershed. By far the largest of these, Lechera Mexicana SA de CV, was observed discharging about 1 cfs of yellow/brown liquid to a drain. One particularly large hog farm (estimated to have capacity for over 1,000 animals), apparently flushes hog manure directly from the pens to an adjacent drain which then flows several miles downstream into the New River.*

*“The only packing house discharge noted was from a large slaughterhouse, Planta Leobardo Lechuga Cruz, located south of Mexicali on the San Felipe Highway. Hogs and cattle are slaughtered at the plant. Wastes from the plant are apparently periodically pumped*



Figure 61: Waste discharge from a hog farm into New River tributary (Jul 1983)



Figure 62: Confined animal facilities located adjacent to New River tributaries (Jul 1983)

<sup>1</sup> The major tributary referred to is the Mexicali Drain.

<sup>2</sup> Industrial Zone IV is located in the southeastern portion of Mexicali.

*from a sump to an adjacent drain.*

*“This drain flows about two miles before emptying into the New River. The discharge pipe from the slaughterhouse could not be located, but was believed to be within a 1-2 foot thick crust of solid waste (manure) which covered the surface of the drain about a 100-yard distance. The liquid in the drain flows beneath the crust and was black, obviously anaerobic, and foul smelling. A local resident was questioned about the discharge and asked why the government allowed such discharges. He replied that Mexicali government officials owned the slaughterhouse.*

*“A significant portion of the New River flow (about 30 cfs) emanates from Mexico’s geothermal development at Cerro Prieto. Apparently toxic substances are present in this suspected geothermal wastewater, since there was no aquatic animal life observed in the drainage ditch, for at least five miles downstream of Cerro Prieto. Further downstream, dead fish were observed.*

*“It was apparent from this investigation that there is no simple solution to cleaning up the New River in Mexico. For Mexico to bring the New River up to standards for comparable streams in the United States (i.e. Alamo River) the Mexican government will have to correct at least the following problems:*

- “1. All point source discharges of raw sewage to the river must be eliminated...*
- “2. Pumping Plants 1 and 2 must be operated such that no raw sewage, under any circumstances, is bypassed to New River.*
- “3. The sewage treatment lagoons must be upgraded to provide secondary treatment.*
- “4. Toxic industrial wastes discharged to the sewer system must be segregated from domestic wastes and treated separately.*
- “5. The Mexicali dump must be relocated such that any waters tributary to the New River do not course through it.*
- “6. The residences situated along the banks of the river system (south of the zoo), the southeastern portion of the City, and south of Industrial Zone IV must be relocated away from the water.*



Figure 63: Slaughterhouse waste discharged to New River tributary south of Mexicali (Jul 1983)

- “7. Wastes from the hog farm, slaughterhouse, and dairy, as identified in this report, must not be allowed to discharge to the river system.
- “8. Industrial wastes, including those from Quimica Organica, Conasupo, and the paper mill, must be kept out of the river system.
- “9. The hog and cattle pens situated on the banks of the river system must be relocated, to prevent the discharge of wastes to the water.
- “10. Geothermal wastewaters must be rerouted away from the New River.
- “11. Deteriorating sewer pipelines along the north and south collectors must be replaced so that raw sewage discharges of New River from resultant breaks are eliminated.
- “12. Septic tank waste haulers must be prevented from discharging wastes to the New River system.



Figure 64: Discharge from Quimica Organica (Jul 1983)

“It was noted during the survey that the most significant pollution of the river system occurs within the city limits, and also from the tributary drain flowing through the Mexicali dump and Industrial Zone IV. However, about 2/3 of the river’s cumulative flow in Mexico is from the relatively unpolluted water flowing from the area south of Laguna Xochimilco. Although some undesirable upstream wastes are discharged from the hog farm and slaughterhouse, it appeared that the river system upstream of Laguna Xochimilco could assimilate these wastes through natural biological processes, particularly with the substantial detention time in Laguna Mexico and Laguna Xochimilco. Incidentally, Laguna Mexico and Laguna Xochimilco were being utilized by swimmers, although signs warning against body contact in Laguna Xochimilco were posted. The environmental impacts from the suspected geothermal wastewater discharge, upstream from these two lakes, is unknown.

“In comparison to the relatively unpolluted river condition upstream of Laguna Xochimilco, the tributary flow from the Mexicali dump and Industrial Zone IV is grossly polluted. This tributary flow is characterized by an obviously anaerobic condition and a foul, pungent odor. There was no evidence of aquatic life in the tributary other than a gray fungus (bacterial slime). The flow in this tributary was estimated at about 15-20 cfs and is substantially composed of concentrated industrial wastewaters.<sup>[1]</sup>

*“Downstream from Laguna Xochimilco the river is further polluted from numerous discharges of raw sewage. A significant tributary, Drain 134, enters the river near the International Boundary. It appears that the flow in Drain 134 is almost entirely composed of raw sewage and industrial wastewater.<sup>[1]</sup> Drain 134 apparently varies in flow considerably, which was estimated at 2-15 cfs*



Figure 65



Figure 66

Figures 65 and 66: A tributary of the Mexicali Drain, which courses through an industrialized area in the southeastern portion of the City (Jul 1983)

*“To bring the New River into full compliance with the standards set forth in Minute No. 264 to the Mexican American Water Treaty, will predictably be a costly process. Much of these costs upon government budgets could be averted if the Mexican government would undertake vigorous regulatory actions against the industrial discharges.*

*“At a minimum, the 12 problems cited in the preceding discussion must be corrected. Therefore, the first step is to determine if the Mexican government is willing, and is financially able to proceed with the necessary corrective works and/or actions. If so, a time schedule should be drawn up. It is mandatory that one-day inspection tours be conducted on at least a quarterly basis to determine compliance not only with a time schedule, but with all of the standards in Minute 264. These inspection tours should be conducted jointly by the International Boundary and Water Commission, the Regional Board, and appropriate Mexican officials. These would not be the standard tours of the waste treatment plants, but would be thorough and critical inspections of the problem areas described in this report, and progress (if any) in correcting them.*

<sup>1</sup> A significant portion of the flow includes sewage effluent from the Gonzalez-Ortega treatment lagoons.

<sup>1</sup> Drain 134 also reportedly conveys wastewater from the city's domestic water treatment facility.

*“If it becomes evident that Mexico is unable to correct the 12 problems listed in the preceding section, then other approaches to correcting the New River problem will need to be investigated.*

*“Minute 264 should be viewed, at best, as only an initial effort to obtain a preliminary standard of corrections to a grossly polluted and contaminated waterway and environment. An updated Minute is needed which is far more definitive in standards, regulatory control, joint monitoring and surveillance, and periodic conferences. It is imperative that the California Regional Water Quality Control Board, Colorado River Basin Region, be made a full participant, along with the International Boundary and Water Commission, in the establishment of standards, monitoring and surveillance, joint inspections in Mexicali, and conference with Mexican regulatory agencies.”*

On July 21, 1983, the Director of the California Department Health Services sent a letter to the U.S. IBWC requesting corrective action on the New and Tijuana River pollution problem.

A July 31, 1983, article in the San Diego Union discussed industrial pollution impacting the New River, some of which is excerpted below:

*“A Mexican chemical plant that received technical advice from a U.S. firm is pouring toxic wastes and suspected carcinogens into a ditch that flows into California’s New River, tests conducted by the San Diego Union show.*

*“C.P. Dario Lopez, director of the Mexicali pesticide and rubber manufacturing plant Quimica Organica, said his company is aware of its discharge, but received advice on handling the chemicals from the B.F. Goodrich Company of Akron, Ohio...Goodrich officials, contacted in Ohio, said they are aware the chemicals may be dangerous and that they did issue proper precautions on handling the chemicals, but emphasized that Quimica Organica never asked Goodrich for assistance on environmental matters...Quimica Organica’s discharge, which California Officials estimated at up to 300 gallons per minute, was observed spewing fuming fluids that one day appeared bright orange at midday and milky pink in early evening. On another day it is brownish gray...On June 21, the Union obtained a half-gallon sample of the bright organic discharge and asked a Sorrento Valley laboratory, S-Cubed, to analyze the contents. The analysis revealed high levels and flakes of sediment of 2,2’ dithiobis (benzothiazole), called DTB or MBTS, a substance used sometimes in pesticides, but primarily in the tire and rubber industry to strengthen raw rubber...The Union’s chemical analysis also showed levels of other substances used in the pesticide and rubber industries that may be toxic, such as toluene, benzothiazole, and suspected carcinogens benzothiazolethiole ethylbenze and chloroform. The lab said the samples also contained either aniline or methyl pyridine, both under federal review for possible adverse effects on human health...Companies in Mexicali have been pressured by both Mexican and U.S. authorities to clean up their discharges, but progress has not been as fast as American environmental officials*

*have wished, in part because of Mexican economic conditions...At Quimica Organica, Lopez said, Mexican authorities have authorized his chemical discharge even though he said he has been told the plant's waste waters do not meet Mexican government standards. He said Quimica Organica has promised to build a treatment plant by December to take care of the problem as part of a major expansion project...California over the years has tried unsuccessfully to stop the high levels of human waste that Mexicali sends, untreated, into the New River...But because of the sensitive nature of border relations, local and EPA pollution officials said they left the matter of those representing U.S. interests on the International Boundary and Water Commission, an agency set up in 1889 to deal with water and subsequently, pollution problems... Art Swajian, the water board's executive officer, said his agency at first did not investigate the problem because its officials did not understand the seriousness of the situation. They also feared it would appear to be 'spying' on another country, he said."*

A letter of August 4, 1983, was received from the California Department of Health Services denying consideration of Superfund action on the New River as follows:

*"We have reviewed your request to Mr. Peter Rank to place the New River on the State Superfund Priority List for remedial action. The Department has concluded that the New River should not be ranked and considered for Superfund action. This policy decision is based on the fact that the origination of the problem is in Mexico, therefore, the expenditure of California chemical industry funds to clean up a problem originating in Mexico would not be an appropriate use of such funds... We believe that this problem should be solved through the International Boundary and Water Commission."*

On August 25, 1983, Assemblyman Steve Peace sent a letter to the State Department of Health Services expressing disappointment *"to learn of your department's denial to place the New River on the State's Superfund priority list. The State of California must protect its citizens from the number one polluted river. I am hopeful that we can work together in this endeavor in the near future."*

A letter of September 7, 1983, from the Regional Board Chair to Fitzhugh Green, Associate Administrator, Office of International Activities within the U.S. Environmental Protection Agency, conveyed the following:

*"We are informed that you are leading the EPA's role as National Coordinator for the United States under Article 8, et. seq. of the 'Agreement Between the United States of America and the United Mexican States on Cooperation for the Protection and Improvement of the Environment in the Border Area', which was signed by the two Presidents in La Paz during their August 12-14, 1983, meeting. For many years, this California Regional Water Quality Control Board (Regional Board) has been working with the United States Commissioner on the International Boundary and Water Commission towards correction of pollution and contamination in New River that is caused by the discharge of sewage and other wastes from the City of Mexicali in Mexico. We would also like to work with you and your representatives in this important endeavor."<sup>[1]</sup>*

A letter to the Regional Board was received from the U.S. IBWC dated September 13, 1983, which conveyed the following:

*“Your letter referred to the draft copy of the ‘Water Quality Investigation of New River Watershed in Mexico,’ made unilaterally by the Executive Officer of your staff. My understanding is that the investigation was made without prior notice to or approval of Mexican authorities. I can only advise that I do not believe that this type of surreptitious action by a U.S. agency in Mexico can contribute to obtaining the cooperation of Mexican authorities to solve the problem. As to the technical findings, the effects of the several sources of pollution reported have, of course, long been reflected by the records analyses of samples taken at the boundary by the Board’s staff and by this Section, and the Mexican authorities are aware of the problems. As to the corrective measures needed, they too are well understood on both sides.”*

On September 20, 1983, the City of Calexico adopted a Resolution entitled Finding and Declaring an Urgent Need to Rejuvenate and Clean the Polluted State of the New River.

In a letter dated September 26, 1983, the Regional Board Chair replied to IBWC’s letter of September 13, 1983:

*“In regards to the investigation made by our staff into Mexicali, I cannot concur with your definition of the procedures by which the field work was conducted. Your representative was with our staff on the initial trip.<sup>[1]</sup> In their investigations our staff did not enter any area where the public is normally excluded. We especially expedited the investigation so that Congressman Duncan Hunter could have the information prior to the meeting of the two Presidents. Also, many of the staff’s findings are in direct derogation of assurances that we had previously received from your office.”*

A letter dated September 30, 1983, directed to the Regional Board’s Executive Officer was received from U.S. EPA and discussed the following:

*“Because of the high priority which both the EPA and the Regional Water Quality Control Board (RWQCB) have given to the solution of border sanitation problems in the Mexicali/Calexico area, we would like to reaffirm the importance of our agencies working closely with each other as we proceed with solutions to this problem.*

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<sup>1</sup> The 1983 “La Paz Agreement” expanded U.S. EPA’s responsibility in border environmental issues considerably.

<sup>1</sup> This was not part of the five-day investigation in July 1983, but a prior, very brief visit conducted as routine IBWC business on which a Regional Board staff member was invited to accompany.

*“We intend to maintain existing lines of communication established between our Region and the RWQCB in our construction grants, permitting, and compliance activities when dealing with border sanitation problems, and to establish any new lines of communication as the situation requires and as the EPA and RWQCB deem appropriate.”*

A letter of October 25, 1983, from State Senator Speraw to U.S. Senator Wilson contained the following:

*“I am writing to urge your personal support for urgency action to mitigate gross contamination of the New River flowing into the Imperial Valley from sources south of the international border at Calexico-Mexicali.*

*“It should be clear to everyone that the high levels of chronic contamination in the river will not be mitigated south of the border on the basis of ‘good neighborliness’ alone. Firm economic, diplomatic and resource management pressures must be exerted from Washington if serious public health hazards in the Imperial Valley are to be averted.”*

Some excerpts from testimony by Senator Wilson for a November 17, 1983, Regional Board public hearing regarding New River pollution includes the following:

*“In 1979, after Presidents Jimmy Carter and Jose Lopez Portillo signed a Joint Communique which mentioned the issue of border sanitation problems, there was much hope that a solution might be at hand. Later that same year, Minute 261 was signed and expectations were again raised.*

*“In 1980, Minute 264 was signed which specifically stated that of all the border sanitation problems the ‘New River 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.’ Citizens of the Imperial Valley were justifiably hopeful.*

*“The sad truth, however, is that little has changed in the time since those agreements were signed.*

*“There is no simple solution to the problem. It will require further study, hearings, negotiations, probably legislation and, no doubt, federal funds. I do not have a facile solution to propose to you today. But I do pledge myself to work with you and the people of Imperial County to help solve the problem. I will continue working with Congressman Hunter and Senator Cranston to ensure that whatever steps are needed at the federal level are taken.”*

A news article in the Imperial Valley Press described the November 17, 1983, Regional Board public hearing on New River pollution thusly:

*“The experts agreed Thursday the New River was a mess, but they couldn’t agree how to clean it up...That a unified effort is needed to clean up the river was a commonly expressed thought at the*

*hearing...But everybody seemed to have a little different approach to tackling the thorny problem: force Mexico to clean it up; aid Mexico to clean it up; divert it so it doesn't cross the border; clean it up after it crosses the border."*

In a February 23, 1984, letter from the Regional Board's Executive Officer to the State Board, the following concerns were cited:

*"As you are aware, the United States Environmental Protection Agency (EPA) has been designated as the lead agency in the United States to coordinate the resolution of international environmental problems with Mexico. Considering that the EPA has had this designation since August 1983, and considering the track record of the predecessor federal agency, the United States Section of the International Boundary and Water Commission (IBWC) in working towards correction of the problem of New River pollution from Mexico, we are becoming concerned about future progress in resolving the New River problem under EPA. We are also becoming concerned about the extent of Regional Board participation that the EPA plans to allow."*

A letter of reply dated March 2, 1984, from the State Board Executive Director stated:

*"...we do not feel that actual physical representation by the Regional Board in discussions between the United States and Mexico is either necessary or desirable. The problem with the New River is an international problem not within the ability of the State of California to solve. The solution to this problem clearly rests with the United States and the Mexican governments. The negotiations which will occur will be largely diplomatic and will generally be conducted in either Mexico City or Washington, D.C. Whether we like it or not, our fate is in the hands of the federal officials which clearly have responsibility for achieving a solution."<sup>1</sup>*

A letter dated March 14, 1984, from the Imperial County Health Officer stated:

*"The New River originates in Mexico, crossing the United States border in the Calexico area, and flowing approximately 50 miles to discharge into the Salton Sea. The course through Imperial County represents a 50 mile sewage conveyor, and is offensive to the senses of a human being...Sewage treatment in Mexicali is non-existent. The system, when working, and it is doubtful to me that it ever has, represents a primary treatment concept which is not good enough for any river discharge...The health hazard is the most potentially explosive aspect of the river. The State Department of Health Virology Laboratory has isolated a wide spectrum of disease causing virus, including polio, during their surveillance. The California Regional Water Quality Board Colorado River Basin Region, has conducted monitoring programs through the State Water Resources Control Board 'Toxic Substance Monitoring Program' for the past six years and have*

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<sup>1</sup> The State Board has gradually changed its position on this, and is now, along with the Regional Board, a key player in United States/Mexico discussions on New River pollution abatement at both the technical and policy level.

*found extensive pesticide pollution. Some of their recent samplings indicate the presence of substantial quantities of a wide variety of volatile organic toxicants. A number of the detected toxicants are on the EPA's list of priority pollutants. Many are known carcinogens."*

On March 22, 1984, U.S. EPA conveyed to the Regional Board a preliminary proposed action plan for resolving the New River pollution which contained the following suggested alternatives:

1. *Treat entire flow of the New River to secondary.*
2. *Conveyance facilities to carry wastewater south to Laguna Salada (out of the New River watershed).*
3. *Establish culvert through Calexico to marshland with disinfection, low water dams, and a scientific marsh system plan.*
4. *Instream treatment employing aeration and chlorination.*
5. *Land treatment/overland flow with irrigation of cotton fields.*

A letter dated May 4, 1984, from Senator Wilson to the Administrator of U.S. EPA addressing New River pollution stated the following:

*"It is my understanding that there are several options which could be implemented to address the immediate situation but that a final study and analysis has yet to be done. I hereby request that the Environmental Protection Agency undertake, as soon as possible, a study to determine cost and technical information on the various options, and consult with the State Department to reach a decision on priority funding to reduce the impending health hazard...This problem should be solved by Mexico. As a practical matter, it appears that the prospects for timely Mexican action are dim for many reasons, not the least of which is the state of Mexico's economy. This does not mean that the United States should be solely responsible for funding any eventual solution. But neither does it mean that Mexico's inability or unwillingness to discharge its obligation excuse the federal government from its obligation to protect the people of the Imperial Valley. The federal government has an obligation to act in order to provide them relief that is already overdue and to take whatever action is required to secure equity from Mexico."*

In May 1984, a lengthy article [The Open Sewer](#) appeared in San Diego Magazine. The following excerpt from that article offers a viewpoint as to why border pollution control efforts were failing:

*"The Mexican federal government, which finances construction and maintenance of all major public works, readily admits its responsibility for the pollution of the New River and Tijuana River and has voiced its concern for the potential health hazard to the people of both countries. But it is also made it clear that Mexico's nearly bankrupt economy gives dim chance of any long-term*

*solution to the border pollution problem in the immediate future. At the same time, Southern California's only other life net, federal aid, was pulled out from under it when the Reagan Administration refused the allotment of any federal monies to clear up the problem on this side of the border... The Reagan Administration is relying entirely on the impoverished Mexican government to solve this border problem. When asked what would be done if Mexico was unable to cope with the pollution problem, officials in the State Department and the Environmental Protection Agency (newly ordained by Reagan as the new negotiating agency) were unable to provide an answer other than to say negotiations would continue. This, in effect, leaves the border situation in the same limbo it has languished in for 40 years, a sort of diplomatic Mexican standoff with Southern California waiting for someone to make the first move. And this leads some critics to doubt the federal government's sincerity in finding a solution."*

At an initial meeting between the U.S. EPA and Mexico's Secretary of Education and Urban Development (SEDUE)<sup>1</sup> on May 29 and 30, 1984, Mexican officials conveyed the following information on efforts in Mexicali to address New River pollution:

*"Within two months, SEDUE will issue permits to identified chemical firms which will require that they cease discharge to the New River. The compliance deadline, however, is not for an additional 13 months while the economic impacts on the companies is assessed.*

*"A new location for the landfill will be sought. Solid waste is handled by the municipality, however, and although SEDUE will support this effort, they will not be the lead agency in this effort. "Rehabilitation work is continuing on the municipal sewage oxidation lagoons. Dredging, aeration, and improvements to pumping station No. 1 are projected to be complete by the end of the calendar year. SARH [Secretary of Agriculture and Hydraulic Resources] has made a decision to use the effluent for agricultural irrigation and plans to build irrigation channels in 1985. The municipality has proposed that SARH take over complete operation of the lagoons but this proposal has not yet been accepted.*

*"An increase in credit for potable water and for rehabilitation and expansion of the existing sewer lines in Mexicali is being sought from BANOBRAS. Any assistance from the U.S. in obtaining this loan would be appreciated."*

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<sup>1</sup> SEDUE was created in 1983 as the primary responsible agency for environmental protection in Mexico. It was replaced in 1992 by the Secretariat of Social Development (SEDESOL). In December 1994, a reorganization shifted much of the environmental responsibility to a new federal agency, the Secretariat of the Environment, Natural Resources, and Fisheries (SEMARNAP). Within SEMARNAP exists two important divisions - the National Water Commission (CNA) and the federal environmental enforcement branch (PROFEPA).

In a June 29, 1984, letter to U.S. IBWC, the Regional Board's Executive Officer expressed the following concerns regarding industrial discharges into the New River from Mexicali:

*"To adequately quantify all the different toxics discharged by Mexico to New River would be a major undertaking in itself, let alone attempting to gauge the adverse impacts of all of these substances upon humans, both individually and cumulatively. It is our belief that it would be much less costly to control point source discharges of toxic substances in Mexico than it would be to conduct studies to validate beyond question what the impacts of the discharges are to beneficial uses of receiving waters.*

*"For many years, this Regional Board has requested from the Mexican government (through IBWC) a simple list of the industries discharging to New River in Mexico.<sup>[1]</sup> Mexico's refusal to comply with this very reasonable informational request, led us to believe that the problem may be worse than initially anticipated. As you are aware, last year we conducted very brief field surveys that provided some information on the types of pollutants being discharged by Mexicali industries. During the survey, several industrial discharges were observed that could not be investigated as to source or type. Recently, we proposed some monitoring in Mexicali that was designed to provide further information on the subject. Again, another reasonable request was rejected.*

*"If Mexico would be willing to provide accurate and complete information as to the types and quantities of industrial wastes discharged to the river, and to allow us to access into the Mexicali area to conduct scientific investigations, we would certainly be willing to work with the Mexican personnel. But, our position must remain in accordance with that which is stated in Minute 264:*

*'The waters of the river shall be free of untreated domestic and industrial waste waters.'*

*"We view the discharges from Quimica Organica and Conasupo, for example, as violations of Minute 264 regardless of what the downstream impacts may be."*

In a July 31, 1984, letter to U.S. EPA, the Regional Board's Executive Officer conveyed the following regarding correction of the New River problem:

*"...the most practical and cost-effective solutions to the problem involve corrective measures instituted within Mexico. These include either point source control of wastes or diversion of all or portions of Mexico's New River flow to Laguna Salada or other sites within Mexico... As for total and final corrective solutions to the problem by the United States, with no cooperation from Mex-*



Figure 67: Oily waste discharge from Sociedad Cooperativa LEA, a cotton processing facility (1986)

<sup>1</sup> In 1997, the list of industries was finally received.

ico, there are only three known alternatives:

*“Diversion of the river’s flow at the International Boundary to the Colorado River downstream of Morelos Dam, or downstream of San Luis, Arizona.*

*“Damming the flow of the river back into Mexico (may be technically possible, but it is doubtful that this would ever be achieved).*

*“Conventional treatment of the river in the United States (this alternative could only be recommended if the river could consistently be treated to an acceptable level, but due to a lack of source control in Mexicali this may be difficult, if not impossible).*

*“Other suggested United States alternative measures, such as wetlands or stabilization pond treatment, represent only partial and temporary remedies to the problem at best.”*

In an August 10, 1984, transmittal to the U.S. EPA, the Regional Board’s Executive Officer recommended that the following be accomplished in Mexicali as part of a phased approach to addressing New River pollution:

“Phase I

*“Elimination of all point source pollutant discharges to the New River including those from:*

*“A. Quimica Organica/Conasupo/Fabrica de Papel S.F./dairies, slaughterhouses, etc.*

*“These industries must eliminate or adequately treat wastes which are now being discharged to the river.*

*“Cost: None to Mexican government<sup>[1]</sup> moderate to industries involved*

*“B. City Dump*

*“The dump must be relocated to high, dry ground at a site which does not permit wastes to enter the New River or its tributaries.*

*“Cost: Minimal*

*“C. Septic Tank Pump Trucks*

*“A proper disposal site needs to be established for the discharge of these wastes, with*

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<sup>1</sup> Since the Mexican government apparently owned some of these operations, this cost impact is not totally correct.

*adequate enforcement to ensure that no further discharge to New River or its tributaries occurs.*

*“Cost: Low*

*“D. Animal Pens*

*“To prevent the discharge of animal manure into the New River and its tributaries, all livestock pens situation adjacent to the river must be relocated away from the water.*

*Cost: None to Mexican government; low-moderate to private landowners.*

*“E. Cerro Prieto*

*“Discharges of geothermal wastes need to be rerouted away from the New River watershed. The elevation at Cerro Prieto is such, that this could easily be accomplished.*

*“Cost: Low*

*“Phase II*

*“A. Upgrade and expand sewer collection system to convey all of city’s unconnected sewers<sup>[1]</sup>*

*“Cost: Moderate-High*

*“B. Replace deteriorating pipeline of sewer collection system*

*“Cost: Moderate-high*

*“C. Install standby pumps to make collection system fail-safe.*

*“Cost: Moderate*

*“Phase III*

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<sup>1</sup> Many of these unconnected sewers we now know are stormwater drains, which are used for raw sewage conveyance when problems (collapsed/clogged lines and failed pumps) develop within the city’s collection system.

“A. Upgrade sewage treatment to secondary.

*“This could possibly be accomplished by expanding the lagoon system, industrial waste control/prereatment, installation of aerators, and a general O&M program.*

*“Cost: Moderate-high*

“B. Sewer or relocate all unsewered residences situated along the river and its tributaries.

*“Cost: Moderate”*

A Regional Board staff report summarizing New River conditions during sampling/observation on August 29, 1984, contained the following which should be considered not atypical<sup>1</sup> of river conditions for this period:

*“The New River was sampled on this date for a 10-hour period. The flow averaged about 415 cfs until the late afternoon when it increased to 442 cfs. BOD was 22 mg/l, which is the highest level recorded during the past year. COD was 68 mg/l. Dissolved oxygen content averaged 0.2 mg/l, which indicates grossly polluted conditions. Fecal coliform levels ranged from 1,300,000 MPN/100 ml to 9,200,000 MPN/100 ml. During the sampling, the river color varied from shades of gray, green, and brown. Considerable sewage solids were observed in addition to dead fish, vegetable refuse, animal entrails, condoms, a tire, dead bird, and other debris. From 0930 to 0945 considerable quantities of tar-like globules were observed on the surface of the river. A foul odor was noted at times during the sampling period.”*

In a December 17, 1984 letter to U.S. EPA, the City of Calexico requested the following actions regarding the New River pollution:

*“Channelization and enclosure of the New River flow through the Calexico area along with the wetlands/holding basins treatment facilities should provide for a partial solution to the New River pollution problem and particularly benefit the community of Calexico, due to the elimination of the health hazards currently created by the New River.”*

A December 1984 report prepared by Regional Board Staff entitled Preliminary Study of Fate of Selected Pollutants Discharged from Mexicali, Mexico to the New River contained the following findings:

*“...data indicates that organic loading from Mexicali is adversely impacting the New River from the International Boundary to the Salton Sea. The lowest dissolved oxygen content of the river usually occurs near Brockman Road, approximately 10 miles downstream from the International*

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<sup>1</sup> The flow was somewhat atypical because of increased flows in the Colorado River. The increased flows began around 1983 and continued for a few years thereafter.

*Boundary, and from this point the river begins a slow recovery--which is aided by mechanical aeration from three drop structures and a weir. Despite this slow recovery process, it is apparent that Mexicali's organic wastes are still causing some oxygen depression at the river's outlet to the Salton Sea...*

*"...concentrations of fecal coliform decline significantly during the 60 hours time of travel between the International Boundary and the Salton Sea. The most marked decrease in fecal coliform occurs between Worthington and Keystone Roads (approximately 24 hours time of travel from the International Boundary)...Concentrations of metals in New River tend to increase downstream of the International Boundary, thus suggesting that agricultural drainage is the most significant source of input." [1]*

In February 1985, a California bill was introduced, AB 1012, which would attempt to secure State funding to address border pollution.

During 1985, the Regional Board hired Kennedy Jenks Engineers to prepare a New River Abatement Alternatives Workplan under a \$50,000 contract. The report was finalized in November, and contained the following recommendation:

*"The recommended approach envisions concurrence of interested parties (both U.S. and Mexico) on the general abatement strategy followed by simultaneous investigations of both U.S. and Mexican actions required. Accomplishment of these objectives can be performed in three phases of which Phases 2 and 3 are subdivided into studies of U.S. and Mexican actions respectively:*

*"Phase 1A -- Development of General Abatement Strategy*

*"Phase 2A -- Development of Viable Abatement Alternatives (U.S.)*

*"Phase 2B -- Development of Viable Abatement Alternatives (Mexico)*

*"Phase 3A -- Evaluation of Abatement Alternatives and Development of Implementation Plan (U.S.)*

*"Phase 3B -- Evaluation of Abatement Alternatives and Development of Implementation Plan (Mexico)*

*"At this time, the three phases are estimated to cost a minimum of between \$400,000 and \$650,000 and would require about two years to complete."*

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<sup>1</sup> Although the New River at the border has long been reputed to be severely polluted with heavy metals, testing has not verified that condition, with the possible exception of mercury.

On March 1, 1985, the California Assembly Select Committee on International Water Treatment and Reclamation made the following recommendations:

*“Provision must be made for extensive epidemiological studies in both the Tijuana and New River/Salton Sea population areas to unequivocally determine the disease transmission potential of contact with the sewage and industrial wastewater contamination in these areas.*

*“Provision of the requisite authority, staff and funding to adequately assess the toxic contamination of both the New River and the Salton Sea. This is to include sediment as well as species testing.*

*“Implement a Sentinel Flock Testing Program at various points along the New River and Salton Sea to assess the encephalitis disease potential.*

*“It is recommended that the State of California take the lead in developing a ‘defensive’ system to comply with its responsibility to protect the health, economy and environment of California’s citizens. This initiative by the State will be the precursor to implementation of such a plan; the responsibility of which should be taken on by local governing entities (including but not limited to the City of San Diego and Imperial County Board of Supervisors) and the Federal Government.*

*“To integrate the goals of saving the Salton Sea, realizing water conservation goals in the Imperial Valley, and controlling the sewage and toxic waste contamination emanating from Mexican sources.”*



## THE BINATIONAL NEW RIVER INSPECTIONS

Beginning in 1986, Regional Board staff was invited to participate in a joint inspection of New River in Mexicali with local IBWC personnel.<sup>1</sup> Significant findings from this inspection included the discovery of:

- Relocation of the City dump within a southerly tributary of the New River near Laguna Mexico.
- Pumping of geothermal wastewater out of the New River watershed.
- A major slaughterhouse discharge from within the city<sup>2</sup>.

During a binational inspection<sup>3</sup> of March 12, 1986, a hazardous waste disposal site<sup>4</sup> was visited west of Mexicali, outside of the New River watershed. Some excerpts from a staff report follow:

*“The next site visited was the hazardous waste disposal site located approximately 10 miles west of Mexicali. A dirt road leading to the site had a padlocked cable across it with a sign that said Peligro (danger) with a skull and cross bones. Therefore, we had to walk a short distance to the site. Because the area was fenced and locked we could not get inside the actual dumping area, although it was fully visible from outside the fence. The dump was larger than I had anticipated, covering perhaps five acres. Thousands of drums had been disposed of along with some evidence of liquid waste discharge/spillage/leakage to the ground. Sandoval said that the site was intended for both empty and full containers, plus liquid waste. Labeling on a few of the drums I observed was that of both pesticides and industrial chemicals ¾ many in English, some in Spanish. Strong chemical odors were present.”*

A March 12, 1986 letter from U.S. EPA to the Regional Board Chair contained the following:

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<sup>1</sup> The binational spirit of cooperation with Regional Board staff has continued, and regularly scheduled inspections with IBWC continue to this day. With the exception of gaining entry within industrial discharge complexes and private property, there essentially has been open and unlimited access to New River pollution sites in Mexicali. This degree of cooperation with Mexico is delicate, however, and is clearly subject to curtailment.

<sup>2</sup> Apparently the same discharge discovered by State Board staff during aerial surveillance in 1975.

<sup>3</sup> From this point on, binational inspections will refer to Mexicali tours in which the Regional Board staff was invited to participate.

<sup>4</sup> This disposal site is primarily of interest in that it was closed shortly following this visit, and although it was indicated that two new disposal areas would be located in the Mexicali area, to my knowledge that never happened. The serious question remaining is the whereabouts of disposal of all the locally generated hazardous waste.

*“Dick Reavis, EPA, reports that Mexico is unable at this time to obtain matching funds to the \$600,000 the United States is offering toward solution of pollution to the New River.”*

A letter dated June 23, 1986, from the Regional Board's Executive Officer to U.S. EPA cited the following concerns and requested a response:

*“Regional Board staff has become aware of several problems in Mexicali, Baja California, which significantly impact the water quality of the New River at the International Boundary that urgently need correcting. These problem areas are as follows:*

- “1. The Mexicali municipal dump was moved from the flood plain of a New River tributary into the flood plain of another New River tributary, with absolutely no regard toward preventing pollution of the New River. We presume that this relocation was directed by Secretario de Desarrollo Urbano y Ecologia (SEDUE). (We were initially optimistic that the August 14, 1983, Presidential agreement would be a major step toward realizing a solution to the New River problem. However, we must conclude, that to date, SEDUE's progress in addressing the New River pollution problem has been very disappointing.)*
- “2. Continuous discharge to the river of considerable volumes of slaughterhouse wastes from one of Mexicali's largest slaughterhouses, including solids and blood.*
- “3. Continuous discharge of untreated industrial waste waters from Conasupo and Quimica Organica to the New River.*
- “4. The lack of a designated site for liquid waste haulers (septic tanks and some petroleum products) to dispose of waste. There is evidence that such wastes continue to be dumped into New River and its tributaries.”*



Figure 70



Figure 71

Figures 70 and 71: Cerro Prieto's wastewater is normally piped to these evaporation basins for mineral extraction (Jan 1986)



Figure 68



Figure 69

Figures 68 and 69: The Mexicali City dump was relocated to this site south of Club Campestre. The dump was located within a tributary drain to New River (Jun 1986)

In November, 1986, State Senator Bergeson reported the following:

CHANGING OF THE GUARD (MID 1980'S)  
*The Binational New River Inspections*

*“On September 30, 1986, Governor George Deukmejian signed into law SB 1745 which will provide \$150,000 for a feasibility assessment of the alternative solutions to pollution in the New and Alamo Rivers. The significance of this assessment is that it is the first step towards defining which of the alternatives defined is the most feasible to implement. As author of the bill, I believe this initial step will allow other steps to follow... Specifically, the funds will be used to address a) the development of a general abatement strategy which includes a detailed analysis of feasible alternatives, b) the collection and review of water quality and health effects data, which shall include an investigation of the extent of pollution in the cities of Calexico, Brawley, and Seeley, and at other Imperial County sites affected by sewer and toxic flows from Mexicali, Mexico, and c) a cost analysis of environmental impact reporting requirements and planning of pilot impact studies.”*



Figure 74: Effluent from Mexicali sewage treatment lagoons (Nov 1986)

On December 28, 1986, the CBS television program “60 Minutes” aired a segment on New River pollution. The focus was on waste discharges from Mexicali.

**CHANGING OF THE GUARD (MID 1980'S)**  
*The Binational New River Inspections*