

# DOCUMENTING THE PROBLEM (MID/LATE 1970's)

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## WATER QUALITY MONITORING

In 1975, Regional Board staff conducted the first comprehensive 24-hour water quality monitoring of the New River at the border. Prior to this, routine sampling was conducted primarily by the California Department of Water Resources, but focused more on general mineral analyses than measuring pollution in general. The U.S. Geological Survey (USGS) prior to 1975 also conducted sporadic water quality sampling (which included analyses for pesticides/metals)

By 1975, it became apparent from analyses of New River water at the International Boundary that Mexicali's sewage collection and treatment facilities had not kept pace with the city's rapidly expanding population, which increased from 130,000 in 1950 to approximately 500,000 in 1975.

On June 12, 1975, the Regional Board adopted Resolution No. 75-39 entitled An International Sanitary and Water Pollution Problem Being Caused by the City of Mexicali, Mexico, which requested that the State Board bring the matter to the attention of the Legislature and Governor of California. It also requested that strong representations be made to the Congress and to the President of the United States to take such actions as necessary to obtain correction of the Mexicali sewage disposal problem into the New River. The Resolution stated that Mexicali's discharge of raw sewage:

1. causes high fecal coliform bacterial counts which averaged 2.3 million fecal coliform colonies per 100 milliliters of New River water sample during the period

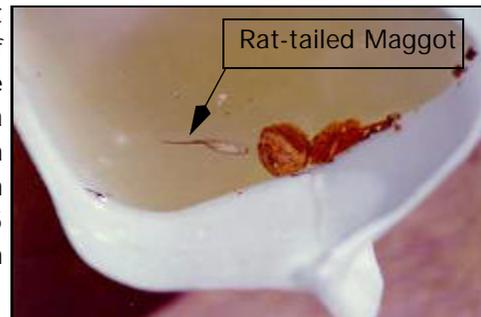


Figure 16: Sample of New River water at International Boundary (1975)



Figure 17: Drain 134 (Aug 1975)

*of October 1974 through March 1975, which is a gross unsanitary condition and health hazard to the people of Imperial Valley;*

- "2. deprives the river water of oxygen content, thereby producing nuisance conditions;*
- "3. makes sewage solids plainly visible in the river water; and*
- "4. makes it impossible to plan the development of attractive recreational features along New River."*

On June 26, 1975, a binational inspection of the Mexicali sewerage facilities was coordinated by IBWC.<sup>1</sup> It was noted that the South Collector was still under construction and should be completed in about a year. The Mexican officials explained that Mexico was seeking a loan from the World Bank to complete the diversion of all untreated sewage from the New River. Effluent from the stabilization ponds was being discharged into the New River and not being used for irrigation as originally proposed. It was explained to the Mexican officials that under U.S. EPA regulations, United States communities are required to provide secondary treatment of wastewater prior to discharge. Stabilization ponds were considered to provide only primary treatment.<sup>2</sup>



Figure 18: Outhouse over the New River (Aug 1975)<sup>3</sup>



Figure 19: Raw sewage spill from North Collector (Aug 1975)

<sup>1</sup> Before/during 1985, the binational inspections that the Regional Board was invited to participate in were conducted infrequently and rigidly organized as to duration and scope. The focus was entirely on progressive actions, and not on visiting existing or new problem sites.

<sup>2</sup> At present, lagoon treatment is considered acceptable under the Clean Water Act for small communities under specified conditions - biochemical oxygen demand not exceeding 65 mg/l and suspended solids not exceeding 95 mg/l. Effluent meeting these standards may be considered as equivalent to secondary treatment.

<sup>3</sup> Before/during this period, the existence of outhouses was commonplace, although few are presently in use along the river.

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Water Quality Monitoring

On August 13, 1975, the U.S. State Department offered Mexico a loan to cover the cost of constructing an adequate wastewater treatment facility. Mexico did not accept the loan. Two months later, it was learned that the Governor of Baja California received \$4,000,000 pesos from the Mexican federal government for completion of the South Collector and to begin construction of another sewage collector. Upon completion of the South Collector, waste discharges from a slaughterhouse would supposedly be picked up.

In a letter dated October 25, 1975, IBWC Commissioner J.F. Friedkin stated that:

*"It is believed important to emphasize that the problem today and in recent years is not the treatment works, but the collection works in Mexicali which only Mexico can repair."*

A November 3, 1975, letter from the California Governor's Office to the U.S. State Department cited three potential alternative solutions to the Mexicali sewage disposal problem:

- "1. The United States can construct wastewater treatment facilities in California adjacent to the border to clean up the pollution created in Mexico.*
- "2. The United States can provide funding to the Mexican government for construction of wastewater treatment facilities in Mexico.*
- "3. The United States can share the costs of construction of a joint treatment facility with the Mexican government. The International Boundary and Water Commission may be an appropriate agency to facilitate a joint project."*

In a letter dated November 16, 1975, the United States Section of the IBWC advised that no assurances could be given that Mexico would agree to provide secondary treatment of



Figure 20



Figure 21



Figure 22

Figures 20 through 22: Raw sewage spills into New River (Aug 1975)

discharges into the New River as required by the U.S. Clean Water Act. This letter was sent in response to a Regional Board letter dated October 16, 1975, requesting that water pollution control in Mexicali be commensurate with that of cities in the Imperial Valley discharging to New River.

On February 12, 1976, notification was received from the Mexican government that treatment works for Mexicali were to be built without regard to cost on a priority basis, and that, by July 1976, works would provide for collection and treatment of 90 percent of the city's sewage. Upon completion of these works, efforts would be concentrated on collection and treatment of the other 10 percent of the untreated sewage discharged into the New River.



Figure 23: Discharge from a soap factory caused this discoloration of the New River at International Boundary (Aug 1975)

In a February 13, 1976, letter from the State Board Chair to the U.S. State Department, it was stated that the reason for the slow progress in resolving the Mexicali/New River problem was a lack of high-level attention. It was proposed that either a high-level person be appointed to provide direction to the U.S. Section of IBWC in formulating a program for correction of the problems resulting from Mexicali's wastewater discharge, or that the State Department appoint someone to do so. A target date of June 30, 1976 was proposed in the letter at which time an active program for resolution of the issue should have been determined. The letter further suggested that the two governments begin active negotiations by January 1, 1977, whereby a mutually agreeable solution could be reached by January 1, 1978, and that immediate implementation of this solution be undertaken by the Mexican government. It was also recommended that a state and federal advisory group be organized to evaluate and report the progress made on the problem.

On February 14, 1976, the Secretary of Hydraulic Resources of Mexico, Leandro Rovirosa Wade, and Governor Castellanos of Baja California met with Commissioner Friedkin to discuss the Mexicali sanitation problem. Secretary Rovirosa Wade and Governor Castellanos promised that flows of polluted waters from Mexicali into the New River would end by January 1, 1977. At the meeting, Mexican engineers discussed the upcoming completion of the South Collector and other collection systems, which would provide for the collection and treatment of all sanitary wastes from Mexicali.

In April 1976, an advisory committee from United States public agencies was formed to work with the Department of State and IBWC to resolve the sanitation problems at Mexicali and Tijuana. Designated members of the committee were:

- W. Don Maughan, Vice-Chair, State Water Resources Control Board,
- Leonard Burtman, Executive Officer, San Diego Regional Board,
- Arthur Swajian, Executive Officer, Colorado River Basin Regional Board, and
- Clyde Eller, Chief Surveillance and Analysis Division, Environmental Protection Agency, Region IX.

Commissioner Friedkin chaired the group. The first meeting was held on April 20, 1976, in Calexico with all members present. Mexican officials were also present at the meeting. Commissioner Friedkin stated that he viewed *"the committee as providing a useful means by which the U.S. Section of the Commission can keep the authorities from the State of California informed as to the efforts being made to solve the problem, and the federal government can receive the input of the California authorities to solve the problem."* Commissioner Friedkin brought the advisory group members up-to-date on the Mexicali sewage situation. He stated that the most urgently needed project was to divert untreated sewage flows, which were discharged into the New River, to oxidation ponds. He mentioned that this was the last year for the present administration in Mexico, and suggested that urging Mexico to complete the work promised be continued. Mexican officials at the meeting stated that all untreated sewage flows originating in Mexicali would be stopped from crossing the International Boundary into the United States by the end of 1976. On the subject of industrial waste discharges, Commissioner Friedkin stated that this problem, if it continued to exist, be approached with the next Mexican administration. The committee was informed that sampling and analyses of waters of the New River near the Boundary was being augmented by the U.S. Section of IBWC, which was collecting two samples each month for analyses of coliform content and total dissolved solids. One sample per month was to be collected and split, one-half being given to the Mexican Section for analysis. A tour<sup>1</sup> of progress to date in Mexicali then followed. The following field observations were noted:

- All pumping plants were operational.
- Progress was observed on the construction of all collection lines.
- The South Collector line had been completed since March 30, 1976, though construction of its subcollector was still underway.

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<sup>1</sup> These tours were organized well in advance and tended to de-emphasize problem areas.

- The oxidation ponds were in full operation.
- Effluent from the ponds was being discharged to a channel which flowed by gravity to the Wisteria Pumping Plant, where it was lifted into another channel, which conveyed it to the New River.<sup>1</sup>

After the field tour, the group reconvened in Calexico. Commissioner Friedkin proposed that a monthly report by the U.S. Section of IBWC be sent to the committee after each joint monthly visit to the project by IBWC engineers of the United States and Mexican Section. The report would describe the progress of the project and results of samples taken at the oxidation ponds at the International Boundary. The need for establishing water quality standards for all streams crossing the International Boundary was expressed. Commissioner Friedkin reported that the Commission was considering an agreement between the two governments on the quality of streams crossing the International Boundary. The need for a long-range solution to the problem was also discussed. Further, reuse of the pond effluent in Mexico, as originally proposed by Mexican authorities, was suggested. Commissioner Friedkin stated that, from his talks with Mexican officials, the reasons why the pond effluent was not being reused was a lack of funding and acceptance by local farmers.

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<sup>1</sup> The Wisteria Pumping Plant was used to convey Mexicali's effluent to the New River until 1978 when its use was discontinued and the effluent was channeled into the river by gravity flow.



Figure 24



Figure 25



Figure 26



Figure 27

Figures 24 through 27: During this period, there were considerable discharges of raw sewage from residential development, such as this, located within the New River floodplain. Although some of this development in the floodplain still exists, most has now been eliminated (Aug 1975).



Figure 28



Figure 29



Figure 30



Figure 31

Figures 28 through 31: Discharges of garbage and sewage into Drain 134. The Drain is now piped through this area (Aug 1975).



Figure 32



Figure 33



Figure 34



Figure 35

Figures 32 through 35: The Mexicali municipal dump. Garbage was dumped into this lagoon, which drained into the New River (Aug 1975)



## REGIONAL BOARD MONITORING PROGRAM

In 1976, Regional Board staff began regular monitoring of the water quality of the New River at the International Boundary, along with documenting visual observations. This monitoring and observation has continued to the present, although the frequency has varied from weekly to quarterly, and has ranged from grab sampling to 24-hour sampling/observation. The objectives of the monitoring/observation were considered to be (and presently remain) the following:

- Determining the extent of pollution and keeping Mexico accountable for it.
- Informing United States federal agencies of specific contaminants requiring control measures.
- Gauging the progress of corrective actions/projects in Mexico.
- Determining compliance with water quality standards and treaty agreements.
- Determining the presence of new pollutants.
- Assisting in determining necessary corrective actions.
- Demonstrating to Mexico that the United States is greatly concerned about the conditions of the river.
- Assessing the public health hazard so that appropriate warnings are issued.



Figure 36: New River emptying into Salton Sea (Aug 1977)

On June 15, 1976, the Imperial Irrigation District Board of Directors<sup>1</sup> adopted Resolution No. 37-76 which requested "the assistance of all recipients of this Resolution in encouraging the Country of Mexico to consider diverting into the Laguna Salada<sup>2</sup> area of Baja California a major

<sup>1</sup> Imperial Irrigation District is the water agency serving the Imperial Valley with conveyance of irrigation water from the Colorado River and also from drainage.

<sup>2</sup> The Laguna Salada is an extensive landlocked basin which is normally dry. Its nearest point is located approximately 10 miles southwest of Mexicali and is entirely within Mexico, as shown by Figure I-1, on page x.

*portion of those waters of New River which originate in Mexico and to also consider any other water conservation measures which could lower the level of Salton Sea."*

On August 1, 1976, a progress report prepared by U.S. IBWC on construction of wastewater collection systems in Mexicali included the following observations:

- Additional pipe had been laid on the South Collector.
- A 24-inch sewer line from the Pemex plant and the Molinero Del Valle (milling operation) were connected to the sub-South Collector.
- A collection system, including a pumping plant, was under construction for a slaughterhouse discharge.
- Pumping Plants No. 1 and 2 were in full operating condition.
- It was reported that barring unforeseen developments, it appeared certain all principal sources of raw sewage into New River, Mexicali, will have been stopped by December 1976, or before.

During the six-month period from October 1976 to April 1977, Regional Board staff reported the following conditions in the New River at the International Boundary:

- Plainly visible sewage solids.
- Dead animals (including dogs, cats, and poultry).
- Considerable refuse (including tires, bottles and vegetable wastes).
- Oil<sup>1</sup> (290 mg/l reported by the Regional Board lab from an April 6, 1977 sample).
- Slug flow of white/gray discharge, including at times particulate matter and/or globules

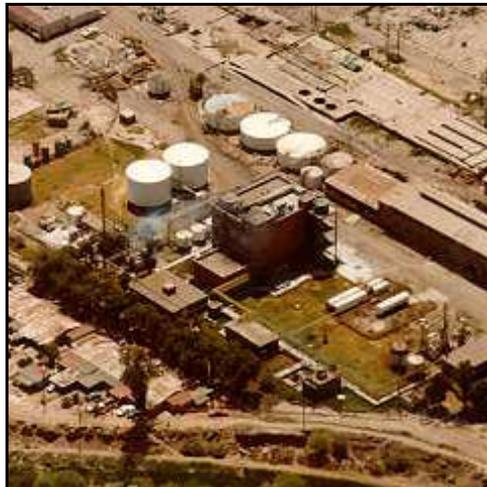


Figure 37: Soap factory (Apr 1978)

<sup>1</sup> The source of this oil remains unknown.

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on surface<sup>1</sup> (observed on 17 occasions from October 1976, with a maximum reported BOD of 960 mg/l).

- Slug flow of gold-colored, yellow discharge (observed on March 9, 1977).

On January 14, 1977, a joint inspection by United States and Mexico representatives in Mexicali revealed that the collection system had been extended, and the necessary connections had been made to stop the discharge of sewage from a number of outfalls to the New River. However, a serious break occurred in a section of a main collector, and raw sewage was being diverted to the New River. The Mexican Commissioner stated that repairs would require about four months.

On May 9, 1977, the Regional Board attempted to make arrangements for an investigative inspection of the New River pollution problem in Mexicali. However, Bill Ericson of the IBWC office in Yuma<sup>2</sup> explained that Mexicali officials prefer that inspections be made by IBWC personnel only, and therefore Regional Board staff were not granted permission to cross the border. However, Mr. Ericson told the Regional Board that he would make an inspection and report his findings to the Board.

An article in the May 19, 1977, Imperial Valley Press stated that:

*"Recent measurements of water quality in the New River at the International Boundary have shown the water is one-third to one-half as foul as the liquid found in a raw sewage pipe, with bacterial count of 35,000 times higher than that allowed by the United States Environmental Protection Agency."*

On June 15, 1977, the Regional Board requested that the IBWC participate in the U.S. Clean Water Act Section 208 (non-point source pollution) studies as the agency responsible for developing a management plan to control pollution of the New and Alamo Rivers from flows originating in Mexico. Commissioner Friedkin stated that the best management plan was already under consideration by IBWC and would consist of a formal agreement with Mexico to control the quality of waters, including the New and Alamo Rivers, which cross the International Boundary. Commissioner Friedkin further stated that the plan would have to be supplemented by monitoring and follow-up procedures.

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<sup>1</sup> The source of the white/gray discharge was most likely a previously mentioned soap factory, shown in Figure 37. These slug flows usually lasted about 30 minutes.

<sup>2</sup> IBWC maintains a field office in Yuma, Arizona, which is its closest IBWC office to the New River. CILA maintains a field office in Mexicali.

On August 10, 1977, U.S. IBWC reported the following observations of the treatment facilities in Mexicali:

- Pumping Plant No. 2 was in full operation.
- Raw sewage from two small collectors was discharging to New River due to overloading of the two temporary pumps at the site (new pumps were to be installed, though no definite date was given).
- The slaughterhouse and railroad yard discharges were flowing untreated to New River due to problems with the pumps.

On August 17, 1977, a storm apparently did considerable damage to the Mexicali sewage treatment system.<sup>1</sup> It was reported by U.S. IBWC that:

- Raw sewage from the entire northeast area of Mexicali was discharged from the wasteway of the North Collector into New River.
- Problems were occurring at Pumping Plant No. 2, which apparently lessened the pumps' capability to pump sewage to the stabilization ponds.
- Pumps at two small collectors were inoperable with raw sewage discharged to New River.
- The slaughterhouse and railroad yard discharges continued to be discharged untreated to the New River.

No dates were suggested as to when the above discrepancies would be corrected.

Following the August 17, 1977, storm damage, the United States government offered Mexico technical and financial assistance in correcting the problems with the Mexicali sewage disposal system. The Mexican government rejected any technical or financial assistance from the United States stating that the technical assistance was neither desired nor needed, and that all construction would be funded by Mexico. The United States Department of State intended to continue calling attention to the Mexican government of the discharge of untreated sewage from Mexicali to the United States.

An October 4, 1977 progress report from U.S. IBWC stated that new pumps had been installed, eliminating the discharge of sewage from several small outfalls into the New River. It also stated that a slaughterhouse and surrounding housing area sharing the same sewer collector were

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<sup>1</sup> Tropical storm Doreen.

continuing to discharge untreated wastes into New River, while awaiting installation of a grinder for the slaughterhouse wastes.

On October 26, 1977, the State Board advised the Governor's Office of steps that might be taken to alleviate the problems in Mexicali. The State Board recommended that the Mexican government be offered technical assistance and possibly federal grants for continuing efforts. Also recommended was support of negotiation through the IBWC for specific agreements to establish water quality standards for the New River at the International Boundary. The two most serious problems to be addressed were said to be breakdowns in the sewer system and direct discharge of untreated industrial wastes.



Figure 38: Overview of Mexicali's sewage treatment lagoons (Apr 1978)

On November 9, 1977, Regional Board staff and the U.S. IBWC met at the International Boundary and agreed from joint observation that sewage solids and industrial wastewaters were present in the New River at that time.<sup>1</sup>

A Regional Board staff report for April/May, 1978, contained the following:

*"Raw sewage continues to be discharged to the New River from Mexicali. Quantities of sewage solids observed have varied considerably from hour to hour, indicating that although most of the sewage flows may be connected to the City's collection system, periodic overloading occurs resulting in increased discharge of raw sewage to the river."*



Figure 39: Discharge of industrial wastewater to Drain 134 (May 1978)

*"Industrial wastes continue to be discharged to the river as evidenced by changes in water"*

<sup>1</sup> Prior to this observation, there had been considerable difference of opinion between the Regional Board staff and IBWC staff as to the extent of the pollution problem at the International Boundary based on visual observations. IBWC staff maintained that the pollution was much less than Regional Board staff was reporting.

*color and field/laboratory analyses.<sup>[1]</sup> A slug flow of dark gray/brown water was observed on three occasions on May 17, 1978 and once on May 25, 1978. Dissolved oxygen content decreased during the duration of these slug flows. Other industrial type discharges noted include yellow/gray sludge and discharges of petroleum products.*

*"Solid wastes continue to be discharged to the river including tires, dead animals, and vegetable wastes.*

*"Dissolved oxygen content of the New River downstream from the International Boundary continues to be depressed and resulted in anaerobic conditions in a five to six mile stretch downstream from the International Boundary on May 10, 1978. These conditions indicate that inadequately treated wastes from Mexico continue to be discharged to the river."*

In June 1978, sewage treatment facilities in Mexicali were almost totally incapacitated, and roughly 70 percent of the city's sewage flowed into California without any treatment. It was learned that the two major pumping plants and standby pumps failed.

A July 3, 1978, letter from California Governor Jerry Brown to U.S. Secretary of State Cyrus Vance stated that:

*"In the last few days the sewage treatment facilities in the City of Mexicali, Mexico, have again broken down and roughly 70 percent of the city's sewage is flowing into California entirely without treatment. This most recent development underscores the fact that efforts over the last two years to find means to abate water pollution at the International Border have failed to achieve a solution.*

*"Both federal and state officials working on the problem have suggested that the surest and promptest way to stop the discharge of raw sewage from Mexicali into the United States would be to offer Mexico either a long-term, low-interest loan or a grant. I urge that you consider seriously making such financing available and that, in any event, you take all steps necessary to eliminate promptly this major threat to public health."*

Another letter, dated July 5, 1978, from Senator Alan Cranston to Secretary of State Cyrus Vance carried a similar message with a request to halt the most recent discharge of untreated waste and to develop a detailed proposal for a long-term solution to the problem.

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<sup>1</sup> The discharge of industrial wastewater into Drain 134, shown in Figure 39, reportedly had a pH of 9.5 and chemical oxygen demand of 2,600 mg/l.

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Regional Board Monitoring Program

Several weeks later, a reply to Governor Brown's and Senator Cranston's letters from the U.S. Department of State acknowledged that polluted water from Mexico was entering the United States via the New River. It was stated that the Mexican government had rejected previous loan offers from the United States, so funding in Mexico was apparently adequate to complete the job. The U.S. Department of State stated the actual problem as follows:

*"Mexican officials have concluded that part of the problem has been the diffusion of responsibility among state, local and federal agencies. They have again promised to resolve it, and state they will concentrate responsibility in a single federal agency. We are hopeful that the results will soon be apparent."*

The letter of reply from the State Department further explained that long-range plans were being developed to cope with the situation as follows:

*"Commissioner Friedkin, U.S. International Boundary and Water Commission, in 1976 proposed to his Mexican colleagues consideration of a general agreement to be concluded under the 1944 Water Treaty to implement the provision in that treaty committing the two governments to give preferential attention to the solution of all border sanitation problems. The Mexican Commissioner concurred. Since then, Commissioner Friedkin, with the assistance of a technical board, has drafted such an agreement and has discussed it with representatives of the four States sharing the border with Mexico, including California, as well as with other federal agencies. After some revision of the draft agreement, he is meeting again with representatives of those States and U.S. EPA on July 28. If, as expected, the State representatives approve the draft, the Department will undoubtedly propose it to the Mexican government."*

*"This proposed agreement could offer three significant advantages. It would set objectives in specific terms, assign to the International Commission <sup>[1]</sup> a direct and continuing responsibility for making recommendations, and where necessary, supervising the construction and operation of a joint project, engaging the Mexican government (rather than local authorities) directly in day-to-day planning and operations. Judging from experience in the handling of other border problems through the Commission, we believe that such an agreement, if it can be concluded, would assist greatly in achieving the solution of border sanitation problems envisioned in the Water Treaty."*

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<sup>1</sup> Refers to International Boundary and Water Commission.



## NEW RIVER POSTING

In a July 5, 1978, letter, Kirkham W. Campbell of the California State Department of Health Services recommended that, due to the presence of raw sewage, the New River should be posted as a public health hazard. On November 13, 1978, the first of 50 signs was posted along the New River near Calexico warning the public to stay away from the contaminated water. A press conference in Calexico followed. At the press conference, a USGS hydrologist, who had tested the New River water for the past four years, stated that the pollution was the worst he had ever witnessed, and his monthly reports on the river's condition had been met with disbelief and shock by his colleagues. A spokesman for the State Board called the New River "*the most visual manifestation of pollution in California.*" The Imperial County Health Director termed the river "*an open sewer*". During the conference, tires, garbage, and human feces were observed floating on the surface of the river.

On November 14, 1978, all pumps in the Mexicali sewage system were back in operation, and reportedly, about 95 percent of the sewage influent was being diverted to the oxidation ponds. Several weeks later, a levee that contained the effluent channel broke, and raw sewage was again discharged into the New River through emergency standby facilities. Repairs were reportedly in progress.

In a letter dated November 22, 1978, Dr. Lee Cottrell, Imperial County Health Officer, stated that mosquitoes in the New River area were checked and found to harbor an encephalitis virus considered to be infectious to humans. Dr. Cottrell also reported that a child was hospitalized following contact with New River water. The illness was diagnosed as shigella, a bacterium that had previously been isolated from the New River. Dr. Cottrell warned of the possibility of epidemics of typhoid, salmonella, or dysentery for as long as the New River remained contaminated. Several alternatives were listed in the letter to abate the New River health hazard as follows:

*"Get Mexicali to repair present sewage treatment facilities, and guarantee their constant function in the future. Minimal standards should be the Clean Water Act of 1977.*

*"Have the United States Government build and maintain a treatment plant on the U.S. side of the International Boundary. This is not a situation to be taken lightly, as the water is 100 percent reclaimable and could be used for recreational facilities, including fishing and swimming, and could be used as a source of household water in the future if this is necessary. It's (the river) flow to the Salton Sea would also assist in the desalting of that body of water.*

*"Directing the flow of the New River back to Mexico for treatment and use as they see fit."*

In correspondence dated December 4, 1978, the Regional Board Chairman alerted the State Board to serious ongoing problems with Mexicali's sewage and industrial waste discharges, and urged the State Board to continue pressing the State Department for corrective action. Some excerpts from the correspondence follow:

*"During the past several years, the Regional Board has made the following observations of conditions of pollution and contamination in the New River at the International Boundary which indicate the discharge of considerable quantities of untreated industrial wastes, in addition to untreated sewage, from the City of Mexicali, in Mexico:*

- "1. Slug flows of white/gray discharge observed on 39 occasions;*
- "2. Surface oil observed on 22 occasions;*
- "3. Floating white particulate matter observed on 20 occasions;*
- "4. Floating yellow sludge observed on 10 occasions (since August 1978);*
- "5. Gray sludge observed on eight occasions;*
- "6. Tar-like globules observed on six occasions;*
- "7. Slug flows of dark gray water observed on four occasions;*
- "8. Slug flows of red/brown discharge observed on three occasions;*
- "9. Slug flows of turbid (silt colored) discharge observed on two occasions; and*
- "10. Slug flow of gold-colored discharge observed on one occasion.*



Figure 40: Slug from soap factory (Aug 1975)

*"These conditions are generally associated with a substantial increase in COD, BOD, suspended and settleable solids, and turbidity of the river water. The dissolved oxygen content is usually depressed and the pH is variable.*

*"Under these circumstances, we believe that some industries in Mexicali are discharging industrial wastes directly to the New River, and apparently with little or no treatment. It does not seem unreasonable to request the Mexican authorities to determine which industries are conducting these discharges, along with investigation of the quantities and pertinent quality characteristics of the wastes and the degree of waste treatment, if any. In view of the resulting heavy pollutant load upon the New River, we request elimination of these discharges; and we also request controls by Mexico to assure that future similar conditions will not result in the Alamo River.*

*"We also note that Mexicali's sewerage system does not include standby facilities in the event of power outage or other pumping plant failures. Their present fail-safe procedure is to divert the sewerage flow to New River. This means that large-scale discharges of untreated sewage and industrial wastes can recur at any time that major trouble develops in the city's wastewater pumping system. We request that this be corrected."*

On December 13, 1978, the Regional Board held a special meeting to hear presentations concerning the status of the pollution and contamination in the New River from wastes discharged from Mexicali, and to review possible alternative procedures for obtaining corrections. Commissioner Friedkin and an EPA representative also attended the meeting. Regional Board staff reported the following:

*"Regional Board data collected to date indicates the following conditions in the New River at the International Boundary:*

- "1. Presence of raw sewage as evidenced by coliform counts in the millions [MPN/100 ml], BOD averaging about 40 mg/l, COD averaging about 130 mg/l; and visual observations of sewage solids, toilet paper, and other materials of sanitary sewage origin.*
- "2. Presence of industrial wastes, as evidenced by BOD levels up to 960 mg/l of river water; COD levels to 1,204 mg/l; abrupt changes in turbidity, settleable and suspended solids, and pH; plus visual observations of oil, sludge, particulate matter, and changes in water color.*
- "3. Depressed dissolved oxygen content during most of the year with anaerobic conditions generally present during the summer.*

*"The above-described conditions are consistently apparent since the sampling program began a few years ago. The data and visual observations indicate that the*

*quantity of raw sewage in the river has been somewhat variable during this period, probably corresponding with improvements or breakdowns in the Mexicali wastewater treatment facilities. Slug flows of suspected industrial waste discharges have been observed frequently during the past two years. During the last three months these discharges have particularly been in evidence, and seem to indicate increased industrial activity in Mexicali."*

At the meeting, Commissioner Friedkin outlined some of the circumstances which made the problem difficult to correct:

- "1. Mexico is a sovereign nation. The only reasonable means we have of getting Mexico to do what we feel they should do is by urging, by persuasion, and by negotiation.*
- "2. The Mexican government does not have the financial ability to provide public works, such as we have in the United States. Mexico is now and has been for several years undergoing severe economic crises.*
- "3. Mexico is a proud nation. For many years, Mexico has not accepted any outright grants. The United States has offered financial assistance on this problem, but Mexico has declined.*
- "4. All land in the vicinity of Mexicali drains to New River. The flow path is northward across the border, through the Imperial Valley, to the Salton Sea.*
- "5. The City of Mexicali has had a very fast rate of growth in population during the past 20 years."*

Commissioner Friedkin also said that the Department of State and IBWC had sent letters to corresponding authorities in Mexico urging correction of the problem for the past two years. He explained that he had been meeting with Mexican representatives and engineers to consider corrective works needed and time schedules. Mr. Friedkin listed the following alternatives for a permanent solution of the problem:

- Transport of New River water in Mexico to Laguna Salada.
- Treatment of New River on the United States side of the Boundary.
- Reuse of New River water within Mexico.

During the meeting, Mr. Friedkin was asked if an alternative course would be to bring the problem before an international tribunal to investigate the possibility of a violation of international law.

Commissioner Friedkin said this would be an alternative, but it would be preferable to resolve the problem through negotiation as international settlements can involve extremely long delays and other drawbacks.

A Regional Board member mentioned the possibility of a suit against the United States government for not filing suit in International Court against Mexico. The Regional Board decided that at its next meeting, it would consider the possibility of forwarding a Resolution to the State Board suggesting such action. W. Don Maughan, State Board Vice-Chairman stated during the meeting that one of the most effective steps in solving the problem would be a signed agreement with Mexico. The agreement would determine what quality of water should cross the Boundary and establish a time schedule to meet that quality. The time schedule would include additional time for pump repairs and other potential problems. Additionally, he said the problem should be brought to the attention of Congress and the President of the United States. Several persons at the meeting questioned the credibility of Mexican authorities handling the problem.

A December 18, 1978, article in Time Magazine concerning the New River stated that *"when it crosses into the United States from Mexico at the town of Calexico, it is so loaded with filth, ranging from parts of animal carcasses to human feces, that even hard-nosed health officials are sickened by the sight and odor."* The editorial board of Time Magazine reportedly classified the New River as the most polluted river in the United States.

A January 5, 1979, letter from the State Board was sent to a number of Senators, Congressmen, Assemblymen, and government officials urging a major diplomatic effort to clean up the New River including *"a personal discussion between the Presidents of the two Countries during their February meeting, stronger pressure from the United States State Department, and more vigorous efforts from the International Boundary and Water Commission."*

Assembly Joint Resolution No. 6, dated January 8, 1979, as authored by California Assemblyman David Kelley, memorialized *"the President of the United States to discuss the subject of the pollution of New River personally with President Portillo of Mexico during their meeting to be held in February 1979, and urge the appropriate agencies and officials of the United States and the Government of Mexico to cooperate fully to improve New River water quality."* The Resolution was passed by the Assembly 70-4 and shortly afterward by the State Senate. It was then given a formal Resolution number by the California Secretary of State and forwarded to President Carter and other federal officials. The Resolution contained the following:

*"The New River which flows across the border between California and Mexico through Calexico and several other Imperial Valley communities enroute to the Salton Sea is contaminated with raw and partially treated sewage and industrial wastes*

*entering at Mexicali, Mexico, the Capitol of Baja California Norte. The burgeoning population of Mexicali, economic hardship, mechanical malfunction, earthquake damage, and tropical storms have combined to complicate the efforts of the Mexican government to adequately treat such pollutants with the result that state and county public health officials in California are seriously concerned about the threat of disease posed by the contaminated water.... Governor Roberto de la Madrid of Baja California has given assurances that necessary repairs to Mexicali's sewage pumping station will be carried out as a high priority project; and the City of Mexicali is planning to build additional oxidation ponds, but, even at full operation, the city's sewage treatment system is inadequate and dated, many residences and businesses are not hooked up to the system, and industrial polluters continue to dump wastes into the river...The problem of New River pollution has plagued California the past quarter century and can be expected to remain as a serious health hazard in view of the fact that Mexicali's population is expected to double in the next decade...Although there have been long-standing and earnest efforts by federal, state, and local officials and the Mexican government to deal with the contamination of New River, and such efforts must continue, the problem has reached such proportions that it should be the subject of discussions at the highest levels of government."*

In a January 10, 1979, letter to President Carter from Senators Cranston, Deconcini, Goldwater, and Hayakawa; and Congressmen Burgener and Udall; the President was asked to discuss border sanitation problems, including the New River problem, with President Lopez Portillo of Mexico. The letter stated that *"in spite of individual efforts we have made to persuade the Mexican government to deal with these conditions, little headway has been made"*.