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**Institute for
Regional Studies
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Water Quality Issues
of the
San Diego-Tijuana
Border Region

by

Clifton G. Metzner, Jr.



Border Issues Series, 5

**WATER QUALITY ISSUES
OF THE
SAN DIEGO-TIJUANA BORDER REGION**

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**WATER QUALITY ISSUES
OF THE
SAN DIEGO-TIJUANA BORDER REGION**

**A Report and Summary of the Second Water Quality Workshop,
San Diego, May 22, 1989**

**By
Clifton G. Metzner, Jr.**

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Water Quality Issues of the San Diego-Tijuana Border Region. A Report and Summary of the Second Water Quality Workshop,

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Background

The Second Water Quality Workshop on issues of the California-Baja California border region was held on the campus of San Diego State University on May 22, 1989. This second in a series of Water Quality Workshops was sponsored by the Institute for Regional Studies of the Californias of SDSU in conjunction with the Commission of the Californias (Environmental Committee), and with financial assistance from the California Coastal Conservancy and Governor's Office of California-Mexico Affairs. The first workshop was held June 20-21, 1988, and covered a broad range of water issues including: roles and responsibilities of agencies regarding border water quality, wastewater treatment, and reclamation in the San Diego-Tijuana region; Tijuana Estuarine Reserve; wastewater treatment and reclamation activities in the New River (Imperial Valley-Mexicali Valley) region; technical information on water reclamation; groundwater issues; and oceanographic factors and marine pollution. A copy of the proceedings of this meeting, *Water Quality Issues of the California-Baja California Region*, was sent to all participants in the first workshop and other interested parties, and is available at the Institute for Regional Studies of the Californias, SDSU.

The purpose of the second workshop was to follow up on the assessments and recommendations presented at the first meeting and to focus specifically on the San Diego-Tijuana border region. The timing of this second workshop was ideal because major decisions must be made this year by Mexico and the United States in regard to installation of wastewater treatment and disposal, as well as reclamation, facilities in the San Diego and Tijuana region.

Transboundary sewage flows in the Tijuana-San Diego area have been a serious issue for decades and have plagued U.S.-Mexican relations. Over the years, the

infrastructure in Tijuana has simply been unable to handle the exploding urban population in that city. Recently, San Diego has also begun to encounter significant difficulties with its wastewater treatment infrastructure. Both cities are now experiencing numerous breakdowns in pumping facilities and in the collector systems, and both face the prospect of significant investment to expand treatment facilities for projected urban growth. Additionally, San Diego is required by the Environmental Protection Agency (EPA) to upgrade its system to secondary treatment in order to meet federal standards, and for the past two years has been in the process of planning and designing a new upgraded treatment and disposal system for the city. This project is now under review by the San Diego City Council. A decision will most likely be made this year as to the most effective option to follow.

This crisis on both sides of the border provides a unique opportunity to view wastewater treatment issues in a broader regional context. Municipal, state, and federal authorities in the United States have developed specific joint (U.S.-Mexican) wastewater treatment and disposal projects and have considered financial support to help resolve this critical problem. The Mexican federal government has also recently expressed interest in the coordination of plans and possible joint projects as well as shared costs to alleviate the problems. Thus, there now exists increasing transboundary cooperation at all levels of government on these important matters of mutual concern. At the same time, mechanisms developed for cooperation and problem resolution in the San Diego-Tijuana region can serve as a model for other areas along the border faced with critical transboundary water issues.

There is some urgency for the development of cooperative United States and Mexico wastewater reclamation projects. As indicated in the First Water Quality Workshop, the California-Mexico border region is characterized by great aridity. For example, San Diego normally imports about 90% of the water it uses. Given the tremendous urban expansion on both sides of the border, and the fact that Southern California lost a portion of its Colorado River water allotment when the Central Arizona Project came on line, the availability of water increasingly is becoming a serious issue in the region. To date, a number of interesting demonstration projects have been undertaken to use wastewater as a valuable resource in terms of reclamation and recycling. The San Diego County Water Authority is embarking on a number of studies and actual reclamation projects in San Diego County. The Mexican Secretaría de Desarrollo Urbano y Ecología (SEDUE) and the new Comisión Nacional de Aguas are likewise seriously looking into wastewater reclamation in certain areas as a government policy in the development of new sewage treatment and disposal projects.

As an outgrowth of these concerns and developments, authorities of the United States and Mexican governments are engaged in comprehensive discussions on possibilities of coordinating the development of joint projects in wastewater treatment and reclamation. The primary project presently under discussion is an international wastewater treatment plant and ocean outfall in the Tijuana-San Diego border area to treat a large portion of sewage emanating from eastern Tijuana and disposing of a portion of the treated wastewater into the ocean. Although President Carlos Salinas and President George Bush during their October 1989 meeting in Washington, D.C., agreed to a joint sewage treatment plant, details and financing remain to be worked out. Consequently, the next year is a very critical period in the development of plans for wastewater treatment and reclamation systems in the greater San Diego-Tijuana region to carry the binational metropolis well into the 21st century.

The Institute for Regional Studies of the Californias at SDSU, uses the university as a neutral forum to bring together the participants in this series of workshops for frank and open discussions of the issues and possible solutions. The non-formal academic environment is a key to eventual resolution of the issues for it eliminates the need for protocol and permits government officials to freely exchange ideas and explore creative solutions. The recommendations and options proposed by these workshops are made available to both United States and Mexican federal, state, and local authorities for their consideration in conducting long range planning for wastewater treatment, disposal, and reclamation on a comprehensive regional basis. This sort of direct involvement in the policy making process by interested local parties and organizations such as San Diego State University is contemplated by provisions of the 1983 Border Environmental Agreement.

The Second Water Quality Workshop was organized into a number of subject areas dealing with wastewater issues in the San Diego-Tijuana region. Most of the sessions consisted of round table discussions on individual topics by selected panelists with audience participation. Formal presentations were generally not a part of the format of this workshop. The following is a summary of these sessions.

Session I: United States and Mexican Plans and Strategies on Dealing with Wastewater Treatment, Disposal, and Reclamation in the San Diego-Tijuana Region.

The U.S. EPA continues to believe that the solution to the problem of raw sewage emanating from Tijuana and flowing into the United States via the Tijuana River is an international treatment plant constructed north of the international boundary in cooperation with the Mexican government and the City of San Diego. This would be the optimum solution, based on cost efficiency, the protection of the Tijuana Estuarine Reserve, and protection of the littoral beach areas. The joint treatment plant would replace the latest Mexican plan to construct a secondary treatment plant on the Alamar River, about five miles from the border. The Alamar plan would discharge treated sewage into the Alamar River, which would then flow into the Tijuana River, through the Tijuana Estuary Reserve, and onto border beaches. In this respect, the EPA supports the position of International Boundary and Water Commission (IBWC) and will collaborate fully with the IBWC to arrive at a consensus in this concept.

Because of a number of elements that seem to be coming together at this time, the United States section of IBWC presented to the Mexican Section of IBWC a proposal for a joint international treatment plant and ocean outfall on the U.S. side of the border. The joint plant is particularly important at this time for several reasons. First, Mexico has decided not to add a second module to the plant completed in January 1987 which has a treatment capacity of about 17 million gallons per day and is located near the coast some five miles south of the boundary. Second, Mexico is moving ahead with the connection of a new fresh water and sewage system in eastern Tijuana which will distribute additional fresh water transported by aqueduct from Mexicali and the Colorado River. This project will double the volume of wastewater produced in eastern Tijuana so that total Tijuana sewage will greatly surpass the existing treatment capacity. Consequently, flows downstream from Tijuana into the United States will not meet U.S. standards established for the protection of the health of its citizens. The Tijuana Estuarine Reserve must also be protected from toxic matter in the sewage flows that could adversely affect the flora and fauna and endangered species in the estuary. The total volume of wastewater flow into one estuary is a matter of concern as well. Sewage is largely fresh water, so that with flows exceeding about 12 million gallons per day, the saline balance of the estuary will be significantly altered, killing off many species of flora and fauna and permanently damaging the estuary's ecosystems. Finally, the beaches of San Diego and Tijuana must be protected from pollution. There have been quarantines in effect along the areas near Imperial Beach for years and, at times, areas north of Im-

perial Beach have also been quarantined. Thus, increasing sewage flows from Tijuana through the United States and into the ocean could eventually have major economic, health, and ecological consequences.

A related topic is that of the emergency sewage connection line linking Tijuana and the Point Loma treatment plant. First, the Mexican Section of the IBWC is currently studying a way to modify the existing payment schedule to more realistically reflect actual costs incurred by the City of San Diego for processing Tijuana sewage when the emergency line is used. Second, the Mexican IBWC section reported that the Module 2 treatment plant, originally planned in addition to Module 1, will not be built because of shortage of funds at this time. However, the government of Mexico does recognize the need for an additional plant, as well as the importance of the United States and Mexico working together to solve the Tijuana sewage problem. IBWC is convinced that there is a responsibility on both sides for the critical sewage situation and that it requires a joint solution. There also exists a responsibility of sharing the cost of the sewage treatment project, a project that should be a long-term solution, not just a temporary measure.

The United States IBWC, in the discussions, indicated that the only alternative for a long-term permanent solution is to provide a treated effluent that will meet the EPA and State of California standards for discharge into the ocean. Consequently, a secondary treatment plant located on the U.S. side of the border would be the solution. This plant would be a binational plant, and cost would be shared according to an equitable formula to be worked out through negotiations with Mexico. The concept of this plant would be to treat the sewage flows primarily from eastern Tijuana not handled by the existing Mexican plant. The new plant would be constructed in modules to handle flows generated over the next 30 or 40 years. The first module would be constructed to treat approximately 25 million gallons per day with an outfall line to the ocean to discharge the effluent treated to meet U.S. government standards. Certain elements of the Mexican government, specifically SEDUE authorities, are still considering the Mexican proposal made over the past several years, most recently in September of 1988, of a 25-40 million gallons per day sewage treatment plant on the Alamar River about five miles from the border. This plant would be constructed as a lagoon system to treat the increasing sewage flows in the eastern Tijuana area, generated mainly by growing water deliveries to Tijuana of Colorado River water by the aqueduct from Mexicali. New water connections are being made to the residences in the area which should result in about 85% of all Tijuana residences receiving running water and being connected to the sewage system. A treatment plant on the Alamar River, if feasible, could also include a reclamation ele-

ment and facilities for pumping and irrigation of farm areas east and southeast of Tijuana.

Session 2: Status of San Diego Sewage Collection and Defense Systems and How these Options Relate to Tijuana Sewage Solutions.

The City of San Diego is in the midst of a three-year study to identify the best alternatives for upgrading the San Diego system to secondary sewage treatment. After the planning program is completed, another three years will be required for design, followed by construction, operation, and maintenance. The San Diego Sewage Task Force is working with James Montgomery Engineering Co., which has been hired to carry out the planning and design of the system. The task force has selected a preferred alternative from a final list of six possibilities. The preferred alternative would encompass three plants, one in the South Bay area with a capacity of 135 million gallons per day; the upgrading of the Point Loma Plant to 150 million gallons per day; and a northern plant, perhaps in the Del Mar area, with a capacity of 45 million gallons per day.

This system would include a wastewater reclamation program for the entire San Diego region. The goal would be to reclaim 20% of San Diego's total wastewater by 2010. In addition, the City of San Diego hopes to cooperate with the U.S. federal government in the development of a U.S.-Mexican binational plant in the border area to process Tijuana sewage, with the purpose of utilizing some joint facilities such as an ocean outfall. The San Diego County Water Authority Board has endorsed the proposal, and coordination meetings are underway with EPA and the State of California for review of site proposals and the ocean outfall. The San Diego Regional Water Quality Control Board would be the agency to issue permits for the discharges into the Tijuana River and the ocean outfall by the binational plant. The Regional Board also supports the concept of a joint City of San Diego and Mexican sewage treatment plant for processing Tijuana sewage. Particularly, the Regional Board is concerned that a common ocean outfall be developed for the binational plant and the San Diego South Bay plant.

Session 3: Reclamation Plans and Projects: Tijuana Region.

The government of Mexico under President Salinas has recently created the National Water Commission (Comisión Nacional de Aguas). This commission functions in conjunction with the Secretariat of Agriculture and Water Resources (Secretaría de Agricultura y Recursos Hidráulicos--SARH), and administers and manages the water resources of Mexico. The Commission has two basic goals: 1) to integrate and administer the quantity and quality of water; and 2) to establish a financial system (a fee system) for water use in Mexico. This fee system will also apply to the use of reclaimed wastewater in Mexico. This applies in a large measure to industries where reclaimed wastewater could be used very effectively. Programs are also underway around Mexico City for the use of wastewater for irrigation of crops. The Commission collects funds from users of the water, which are then employed for development of additional programs.

Standards have been established for the use of wastewater by agriculture and industry. The use of treated wastewater is absolutely necessary in Mexico and is an important government policy. The largest potential user of wastewater in Mexico is the petroleum industry, which is in the process of switching over to the use of treated wastewater. The Commission is now working on a program for reclamation and water reuse in the border areas which will include a program for fresh water and wastewater uses, with a fee schedule for the various types of users. Tijuana will be the first city where this new program will be initiated.

There have been a number of studies made by the Mexican government regarding the possible use of treated wastewater for irrigation of agricultural crops in the Matamoros and Mazatlán areas east and south of Tijuana, and for parklands around the city. These studies were carried out in conjunction with the plan to build a sewage treatment plant on the Alamar River and divert the discharges for reuse purposes in the areas mentioned above. This process would, in effect, divert the treated wastewater from flowing into the Tijuana River and, hence, from crossing the border into the United States. This reclamation project would require a large number of pumping facilities to transport the water to areas where it could be used most effectively. It was concluded that the soils in these areas were not sufficiently productive for agricultural purposes to justify the enormous expense of pumping for irrigation. An alternative proposal to use these reclaimed waters was for agriculture in La Misión Valley, about 25 miles from the Alamar site. This could be accomplished by first pumping and then using gravity canals, but it was concluded by the Mexican government that the

use of treated wastewater from the Alamar plant would not be cost effective in the La Misión project.

There was also discussion in this panel about the concept of viewing the Tijuana-San Diego water problems from a regional perspective. It was felt that there would be advantages in jointly managing reclamation projects in the region, unconstrained by the political boundaries. This concept would certainly utilize the gravity flow of water from Tijuana to the south San Diego area and the possibility that these waters could be used most effectively by both sides.

Panel 3 also discussed the topic of decentralized versus centralized treatment facilities. A basic consideration in facility design is the projected urban growth of Tijuana to perhaps 2.5 million residents over the next ten years and a similar growth rate for San Diego. As far as future urban growth in Tijuana is concerned, it may be possible to plan ahead for decentralized treatment, disposal, and reclamation plants of about one million gallons per day capacity that could be strategically sited in the new areas as they develop. This system would complement the central system that now exists. However, the immediate situation is critical and requires the secondary treatment of approximately an additional 50 million gallons per day over the next ten years. This amount of treated wastewater and/or raw sewage that would cross the border via the Tijuana River could not be handled by small decentralized plants. Thus, the U.S. and Mexican sections of the IBWC are in agreement that when taking all of the issues into consideration, the most effective and rapid way to solve the Tijuana sewage situation is with a joint international sewage treatment plant in the border area on the San Diego side. This proposition would also fit with San Diego plans to construct a new sewage treatment plant in the South Bay area. Both plants could utilize the same land and ocean outfall.

As progress is made in the development of sewage treatment plans and as needs arise, collaboration between the United States and Mexico on wastewater reclamation projects in this region would be also pursued. For example, the city of Tijuana has plans to improve the urban environment through the creation of many parks and large green areas which could be developed with reclaimed water. The development of Otay Mesa, on both sides of the border, is an area where treated wastewater could be supplied for commercial and industrial uses. There are a number of areas to the southwest of Tijuana, in the Rosarito Beach environs, that are currently small farms of 10 to 15 acres each, but which could be brought together in a water reuse program where it would be cost effective to irrigate large agricultural areas. In fact, if Tijuana does not initiate a program to irrigate crops and parklands with treated wastewater to replace present and fu-

ture use of imported water for these purposes, the city simply cannot keep growing.

There was a consensus at the workshop that small decentralized treatment plants are useful for the continued growth of Tijuana, particularly in hilly areas and canyons where the treated wastewater can be transported by gravity to the surrounding areas. But these plants would only be complementary to an adequate central system that would handle the bulk of the urban sewage through the established sewage lines and pumping centers. Moreover, it might be cost effective to install additional pumping systems to distribute this centrally treated wastewater to the areas where it could be utilized.

In March of 1988, the Mexican government passed a new Law on Environmental Protection. This law established norms or standards for the discharging of residues and toxic wastes into the sewage system. In the case of Tijuana and Mexicali, large quantities of these toxic metals and other hazardous wastes are discharged by the maquiladora and other industries. The new discharge standards, which will be administered by SEDUE, will be applied to the maquiladora industry as well as other industries. All industries must register their discharges, and streams and rivers will be monitored. Discharges of toxic industrial wastes will not be permitted if they exceed maximum levels set by the SEDUE standards. The discharge into streams or rivers of many industrial wastes will be totally prohibited; instead these must be returned to the country of origin.

There have been a number of meetings between SEDUE and EPA to coordinate efforts and enforce the maquiladora "obligations" to return the toxic residues from the industry back to the United States. This will create problems in the United States as well. If toxic waste is returned over the border, say from Tijuana to San Diego, who has responsibility in the United States for final disposal of the waste? San Diego certainly does not have, and should not have, responsibility of disposing of toxic waste from, for example, a U.S. industry in Chicago that operates a maquiladora in Tijuana. These questions are presently under study by the hazardous waste authorities in EPA and SEDUE.

Session 4: Status of San Diego County Reclamation Plans and Projects.

The San Diego County Water Authority (CWA) distributes water to 24 county local agencies and these agencies distribute to the end users in the county. In 1988, the CWA distributed approximately 580,000 acre feet of water of which 90% was imported through the Metropolitan Water District of South California which receives its water supplies from the Colorado River and Northern California sources. Since only 10% of San Diego County's water supply is from local sources, it is essential to develop a significant wastewater reclamation program for the county. Figures indicate that San Diego will be at least 20% short of its water needs by 2010, considering present needs and future planned development. Consequently, the CWA has the objective by 2010 to provide 100,000 acre feet per year of treated wastewater for county users which will be available for agricultural, park, freeway, and golf course irrigation as well as for industrial and commercial uses. At present, only 10,000 acre feet of water are being reused in the county and about 200 million gallons per day of treated water are being discharged into the ocean.

The CWA has designated 15 regions in the county, from Fallbrook in the north to the Mexican border in the south, for reclamation projects. In the North County, this water would mostly be used for agricultural and flower irrigation, freeways, parks, and golf courses; in the south the water will be used more for urban communities, parks, golf courses, and industrial use. New technologies such as retro-adaptation devices will be used in the urban communities. This county program for water reuse projects will require six new treatment plants as well as bringing the existing treatment plant at Point Loma up to secondary treatment level. This system will generate about 100 million gallons per day of secondary treated reclaimed water. These systems will eventually require about 600 miles of piping, water storage areas for about 80 million gallons per day, and an equivalent pumping capacity for 80 million gallons per day. This plan would reduce the need for imported water from 90% to 60% by 2010 and would be combined with a comprehensive water saving campaign throughout the county.

It is proposed that 80% of the treated wastewater in the county will be used for urban irrigation, parks, golf courses, gardens, freeways, landscaping, and industrial uses. About 20% of the reclaimed water will be used for agricultural irrigation--mostly citrus, avocados, and flowers. The water quality will be strictly controlled; EPA and California State standards will be applied to all treatment projects by the Regional Water Quality Control Board. The program is already underway; markets have been surveyed and 300 different users with five or

more irrigated acres have been identified. These include golf courses, cemeteries, parks, and so forth. Studies have also been made as to where treated wastewater could be discharged during certain winter months when market demand is reduced.

The County Water Authority is determined to deliver high quality treated water because of actual or potential human contact, which will add to the costs. Studies are underway to determine costs for reclaimed water in excess of marginal costs. In the first years, this program will require subsidies from local and state levels as well as low interest loans from the California Water Resources Council. Nevertheless, San Diego County must be prepared for possible reductions in its imported water supplies because of natural disasters such as droughts and earthquakes, and also because of expanded population locally and increased water uses in other areas of California. Whatever the costs, San Diego must be prepared to meet future water requirements.

Session 5: Creative Financing.

It was suggested that for specific border environmental projects, such as joint treatment plants or joint reclamation systems, the mechanism of a debt swap could be utilized for partial or full financing. These sorts of arrangements have been used in a number of areas of Latin America to reduce the outstanding foreign debt of the country in question and to provide local currency for investment projects, creation of conservation projects such as biosphere reserves, and funding for scholarly research projects. In the case of the U.S.-Mexican border environmental problems, debt swaps could be employed in several ways. First, a U.S. bank could donate outstanding debt to a U.S. university or local government, thereby receiving credit for a charitable donation from the Internal Revenue Service. The receiving entity would then negotiate with the government of Mexico for payment in pesos for a portion of that debt, probably 35% to 50%. The pesos thus generated would then be spent on the research, planning, and construction of the specific border environmental project.

In another scenario, local or state governments in the United States along the border could purchase through a bond issue discounted Mexican debt. That debt amount would then be negotiated with the Mexican government for payment in pesos which would then be employed in the construction of border environmental projects.

Although such debt swaps are considered to have inflationary effects on Mexico, the total amount of money required for a few key border projects would not

have a significant impact on inflation in Mexico. However, potential trouble spots in the U.S.-Mexican relationship would be taken care of and Mexico's foreign debt would be reduced. As well, the United States would share part of the cost through tax reductions to donating banks, costs of bond issues, and costs of the U.S. part of the joint project.

Another possibility is to explore the total financing of a joint international treatment plant by the U.S. side and the completed project would generate income by users in Mexico. The income generated could then be used for future joint environmental or infrastructure projects such as a binational international airport, border crossing facilities, and so forth. Thus, with the United States fronting the capital for a project, and then working out future participation by Mexico on a parity basis, projects could commence sooner and both sides would contribute and benefit. The linking of transboundary needs is complex, and could involve trade-offs such as the United States contributing a sewage plant and Mexico eventually constructing an outfall or contributing land and construction to a new binational airport. Or, as its share, Mexico could provide quality indigent health services to U.S. clients. There are many possibilities for these types of arrangements and they can work as seen, for example, in a number of cases in European border regions where transborder collaboration has created smooth running binational and even trinational international airports.

Conclusions

There was a strong consensus among workshop participants that the United States and Mexico must work together closely to establish lasting coordination and cooperation in the comprehensive regional planning for wastewater treatment and reclamation projects serving Tijuana and San Diego. As well, it was agreed that meetings and workshops such as these SDSU Water Quality Workshops are an effective tool in the process of obtaining from experts and leaders in both countries general views and specific recommendations for solutions to transboundary environmental problems.

Most participants, because of the urgency of this problem, supported the concept that the best geographical and economical solution would be an international treatment plant on the San Diego side of the border to handle a major portion of Tijuana's sewage. Labor and financing for the project should be shared and the finished plant should be jointly operated and maintained. This would certainly be a long-term solution and would include the possibility of expanding the capacity of the plant as required by future demand. Wastewater reclamation is crucial in the comprehensive planning for both Tijuana and San Diego. Both

cities and surrounding areas are at the end of the water supply line and are now in a delicate balance of availability and use of water. Exploding populations as well as commercial and industrial development will alter that balance.

Both the United States and Mexico are in the process of planning border water reclamation projects and must take into consideration what is being planned in the entire binational region, as well as ways and means of cooperation for cost reduction. Small decentralized treatment and reclamation plants have an important role to play in the future planning on both sides of the border where they could be installed to serve selected communities, particularly newly developing areas that would require new sewage facilities. The results of these Water Quality Workshops can be used to the advantage of both sides in the ongoing discussions between the United States and Mexico concerning solutions to treatment and reclamation problems and to encourage the two sides to work jointly, on a regional basis, to solve these issues.

Update on the United States-Mexico Sewage Treatment Plant.

On October 3, 1989, the United States and Mexico signed an agreement to share the cost of the construction of a joint treatment plant north of the border to treat sewage flowing into San Diego from Tijuana. The agreement that was signed by Presidents Carlos Salinas de Gortari of Mexico and George Bush of the United States will provide secondary treatment and disposal of wastewater generated by Tijuana and will also provide for future growth of the facility as sewage flows increase. Both countries indicated that this agreement will be the long term solution to the 30 year old sewage problem between Tijuana and San Diego. Construction is expected to begin in 1990 and will be completed in 1993.

The International Boundary and Water Commission is instructed by both governments to work out a detailed agreement within 30 days. The joint plant will follow the framework proposed by the United States to Mexico in September of 1988 and will cost approximately \$192 million which will include a treatment capacity of 25 million gallons per day and related facilities, such as a land and ocean wastewater outfall.

Under the agreement, the U.S. government will absorb about half the cost, with Mexico's share to be about \$20 million (the estimated cost of a Mexican plant built in Mexico). The State of California and City of San Diego will be required to contribute the remainder of the costs. Congress has already appropriated \$25 million to EPA for a sewage project at the border that would have provided a pipeline to collect renegade sewage flows from the Tijuana River and various

gulches and canyons along the border and return them back to Mexico. But an increase in the sewage flows from Tijuana caused that plan to be cancelled since Tijuana sewage treatment facilities are now at full capacity. The \$25 million will now be applied to get the joint treatment plant project started with detailed engineering plans and some early grading and construction.

At this time, there is great confusion in San Diego over the upgrading of the San Diego sewage system to secondary treatment which is required by EPA under the Clean Water Act. There are a number of scientists and authorities who claim that secondary treatment is not needed and, in fact, could be detrimental to the ocean environment. The Sewage Task Force is continuing on with the study and the EPA and the Department of Justice are now discussing with the City of San Diego authorities options for long term completion dates for the project. Consequently, there may not be a San Diego South Bay sewage plant in the future to coordinate with the U.S.-Mexican border plant. It will most likely be another six months to a year before the San Diego sewage system issue is resolved.

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