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San Antonio
1988

San Antonio River Authority



1937-1987




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1930's

The history of the San Antonio River Authority began with its creation by an Act of the 45th Legislature of Texas as the San Antonio River Canal and Conservancy District on May 5, 1937. The single focus of the new District was to plan a barge canal for commercial transportation of bulk goods and materials to and from San Antonio to the Texas coast.

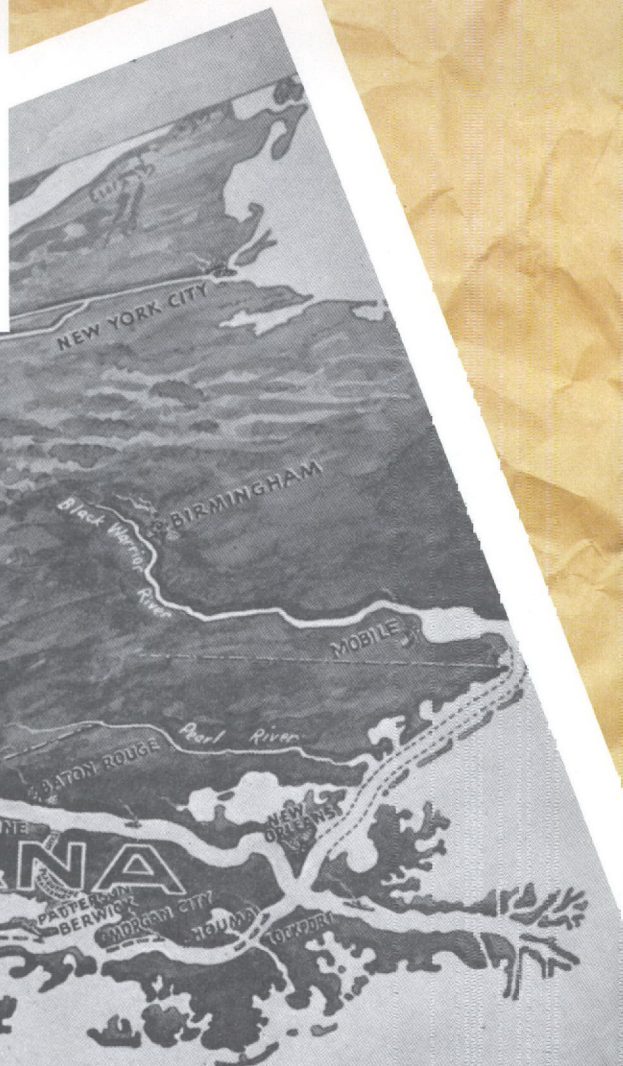
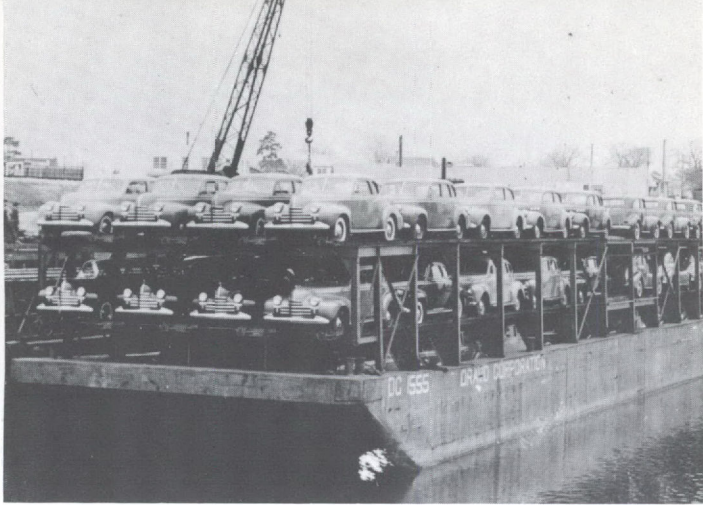
The original directors of the District were Charles Baumberger, Sr., E. H. Kifer, P. D. Matz, Brooks B. McGimsey, Morris L. Roark, and W. B. Tuttle, all from Bexar County. The first meeting of the Board of Directors was on June 11, 1937. Col. W. B. Tuttle was elected first Chairman of the Board.

T. N. Picnot, a consulting engineer, made field investigations while preparing the District's preliminary report on the barge canal dated May 4, 1938. While concluding that there were no engineering obstacles which could not be overcome, Picnot warned that some of the downstream residents bore animosity because, "... the sewer system of the City of San Antonio is wholly responsible for pollution of the San Antonio River." This admonition was a portent of water quality problems which became one of the District's prime concerns during the 1960's and beyond.

The Rivers and Harbors Act of June 30, 1938, authorized navigation and flood control studies by the U.S. Army Corps of Engineers. These studies actually began in 1939. That year an Act of the 46th Texas Legislature increased the District's jurisdiction to include the natural bed, banks, and channel of the San Antonio River; and named John Weber of Goliad County, Alf B. Schroeter of Karnes County and John C. Merchant of Wilson County as new Directors. District functions authorized by the 46th Legislature were navigation, flood control, forestation and reforestation.

During the very earliest years of its existence the District collected and presented planning information for the barge canal to the Corps of Engineers. This work was sustained by limited state appropriations, private donations and volunteer efforts.





The grand plan and its environs

1940's

Col. Tuttle kept the District intact during World War II and efforts to develop and submit information on the barge canal continued. The final brief from the District was submitted to the Galveston District office of the Corps of Engineers in 1945.

Both navigation and flood control were addressed in the preliminary report on the San Antonio River basin study by the Corps of Engineers in 1946. Navigation studies were dropped by the Corps of Engineers after the September 26-27, 1946 flooding in San Antonio. This event caused six deaths and \$2.1 million in property damages.

As a result of this new emphasis in 1947, the District sought funds for flood control efforts from the 50th Legislature. Though unsuccessful in their first try, success did come in 1949 when the 51st Legislature donated to the District the proceeds of the final two years of state flood control taxes which were collected in Bexar, Wilson, Karnes and Goliad Counties. From the first of these funds received, the Directors repaid over \$3,000 to Col. Tuttle for his personal expenditures in support of the work of the District.

In the fall of 1949 field surveying and planning parties from the Galveston District office of the Corps of Engineers worked in the cities of Kenedy and San Antonio to complete the flood control project studies.



Travis Street -
Flood of 1913



1946 Flood -
Highwaters





1921 Flood - The Navarro Street Bridge

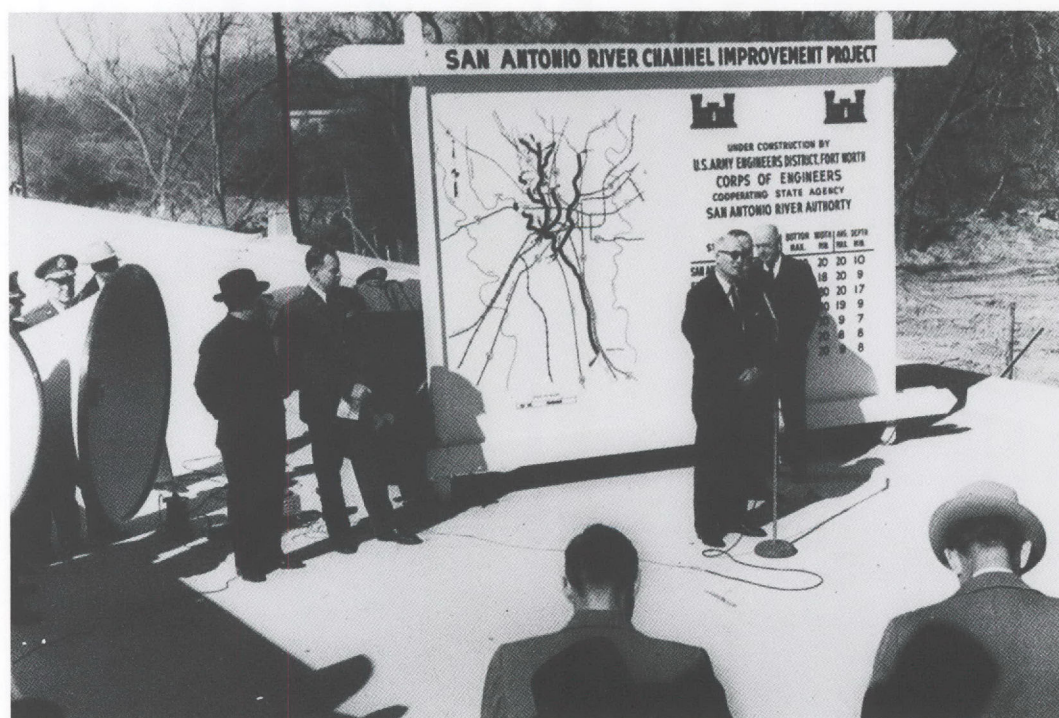


High water at the corner - 1946 Flood

Low water crossing - 1946 Flood

1950's

Dedication ceremony



The Corps of Engineers interim report on urban flood control in the San Antonio River Basin was completed in 1951. Two local flood control projects were recommended. One involved the channelization of about 2.1 miles of Escondido Creek in the city of Kenedy. The other, which later became known as the San Antonio Channel Improvement Project (SACIP), involved 31 miles of improvements on the San Antonio River and its tributaries, San Pedro, Apache, Alazan, and Martinez

Creeks. In 1951 the Bexar County Commissioners Court and the District submitted a proposal to Bexar County residents to have a county 30¢ ad valorem tax, 15¢ for flood control and 15¢ for road improvements, to replace the State flood control tax which had been eliminated by a 1948 constitutional amendment. With 71% voting to authorize the new tax, the District and County entered into a contract making the proceeds of the flood control tax available to the District to finance the non-federal cost of flood control work in Bexar County.

In 1951 the District used the earlier donated state funds for a

trust fund guaranteeing payment to the Soil Conservation Service of the U.S. Department of Agriculture for accomplishment of the San Antonio River Watershed Study. This study, completed in 1952, recommended a comprehensive soil and water conservation program including the construction of approximately 85 floodwater retarding dams throughout the San Antonio River basin. As a result of this study and because of his personal interest, Col. Tuttle was selected as one of 14 members representing the National Association of Soil Conservation Districts to work for better allocation of funds for soil conservation and flood control projects. The efforts of this group resulted in the 1953 congressional appropriation for Pilot Watershed Projects and the designation of the Calaveras Creek Pilot Watershed Project in Bexar County and the Escondido Creek Pilot Watershed Project in Karnes County in the San Antonio basin. These projects were two of only four projects funded in the entire State of Texas. By 1959 nine dams of the Calaveras Project and eleven dams of the Escondido Project have been completed. Detailed planning was also underway by the Soil Conservation Service on the Martinez and Salado Creek watersheds in Bexar County under Public Law 83-566.

In 1953 the San Antonio River Canal and Conservancy District was renamed the San Antonio River Authority (SARA) by Act of the 53rd Legislature. While seeking federal authorization for the Escondido Creek channelization and SACIP, SARA used the proceeds of the 15¢ county flood control tax to cooperate with the City of San Antonio in construction of urgently-needed improvements including work on the constricted area of San Pedro Creek near its confluence with Apache Creek, the installation of the Tainter Gate on the cutoff channel of the San Antonio River between Commerce Street and Market Street, and the construction of new cutoff channels near

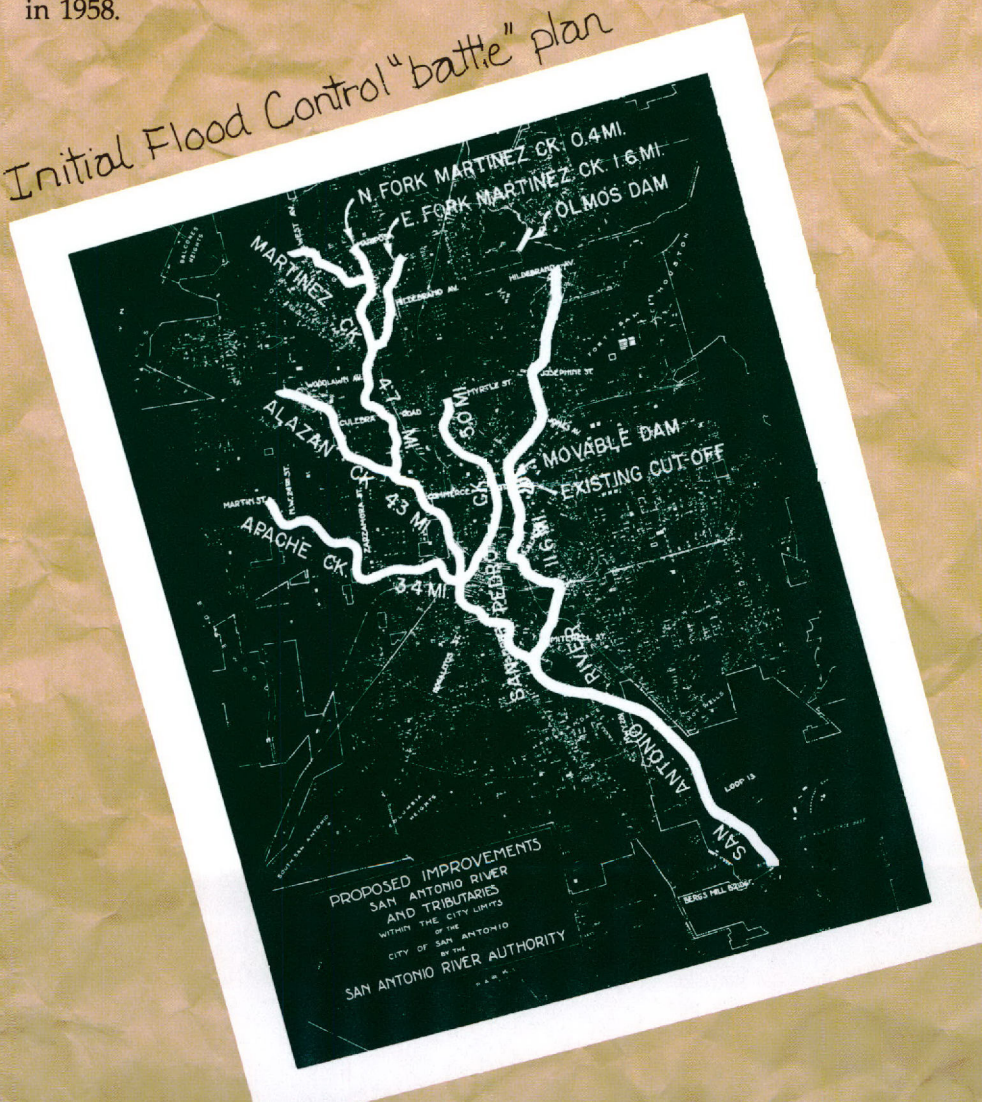
Ninth Street and Roosevelt Avenue.

Both SACIP and the Escondido Creek Channelization Project were authorized when Congress passed the Flood Control Act of September 3, 1954. The SARA-Bexar County Flood Control Contract of 1955 was executed so SARA could use revenues from the 15¢ county flood control tax to underwrite the sale of bonds for funding the local responsibilities of SACIP. In 1956 the City of San Antonio agreed to operate and maintain all parts of SACIP authorized in 1954. The Corps of Engineers in 1957 accepted SARA's assurances that essential rights-of-way could be provided to the Corps for construction of the channel improvements and that the completed work could be satisfactorily maintained. The first construction contract for channel improvement on the San Antonio River from Berg's Mill upstream to San Pedro Creek was awarded in 1958.

Although right-of-way activities were begun for the Escondido Creek Channelization Project in Kenedy, satisfactory funding for the local interest responsibilities could not be developed and the project was terminated as a Corps of Engineers endeavor.

Having acted as both Chairman and Manager since SARA's inception in 1937, Col. Tuttle died suddenly on September 8, 1954. Shortly thereafter, the Directors employed J. L. Dickson as SARA's first salaried Manager on October 13, 1954. SARA's early staffing was directed towards right-of-way acquisition for the flood control projects. At the end of 1959 SARA's staff of seven people was working out of offices in San Antonio in the Architects and Engineers' Building at 342 W. Woodlawn Avenue and the Kelly Building at 2003 San Pedro Avenue.

Initial Flood Control "battle" plan



general administration. It also added the new functions of water conservation and development, irrigation, soil conservation, sewage treatment, pollution prevention, and parks operations.

After the 1961 reorganization, a successful tax election was held which authorized the levy and collection of the 2¢ ad valorem tax, and SARA initiated several major new programs including water supply initiatives, water quality studies, and sewage treatment projects.

The surface water planning effort involved the Bureau of Reclamation, the Guadalupe-Blanco River Authority, and the Cities of San Antonio, Runge, Karnes City and Kenedy. Based on studies completed by the Bureau of Reclamation recommending construction of the Cuero reservoir project, SARA and GBRA executed a water exchange agreement in 1963 which would have provided up to 180,000 acre feet water for San Antonio. The City Water Board of San Antonio did not embrace the Cuero option, hoping to secure water from Canyon reservoir. The Bureau of Reclamation had also studied the proposed Cibolo project in which Karnes City and Kenedy also expressed strong interest. The proposed Goliad and Applewhite reservoirs were discussed as well as the Electro project which was found to be infeasible. No concensus could be reached by project participants during the decade of the 1960's.

Shortly after his election to Congress, Henry B. Gonzalez obtained funding for renewed studies by the Corps of Engineers for the Barge Canal project. With SARA's support and broad community enthusiasm the barge canal studies were reinstated by the Corps in 1963. After several years of additional study, the barge canal project was deferred indefinitely when the Corps of Engineers made the de-

termination that the benefit/cost ratio for the project was severely inadequate.

SARA's activities in water pollution prevention increased immediately after reorganization in 1961. A Pollution Committee was formed and then selected a consulting firm to accomplish the San Antonio River Basin Pollution Prevention Study. SARA contracted with the Texas Department of Health laboratory for analysis of stream water samples drawn in connection

Water Quality Board adopted the first stream standards plan for the San Antonio River basin in 1968. There were only minimal differences between the state plan and SARA's proposal.

Parallel with its water pollution study activity, SARA authorized preliminary studies of the proposed Upper Cibolo Creek Regional Sewerage System in 1964. The combination and centralization of the wastewater needs of Universal City, Schertz, and Randolph Air Force Base were contemplated. That same year developers solicited construction of the Salatrillo Creek Sewerage System by SARA. After receiving necessary assur-

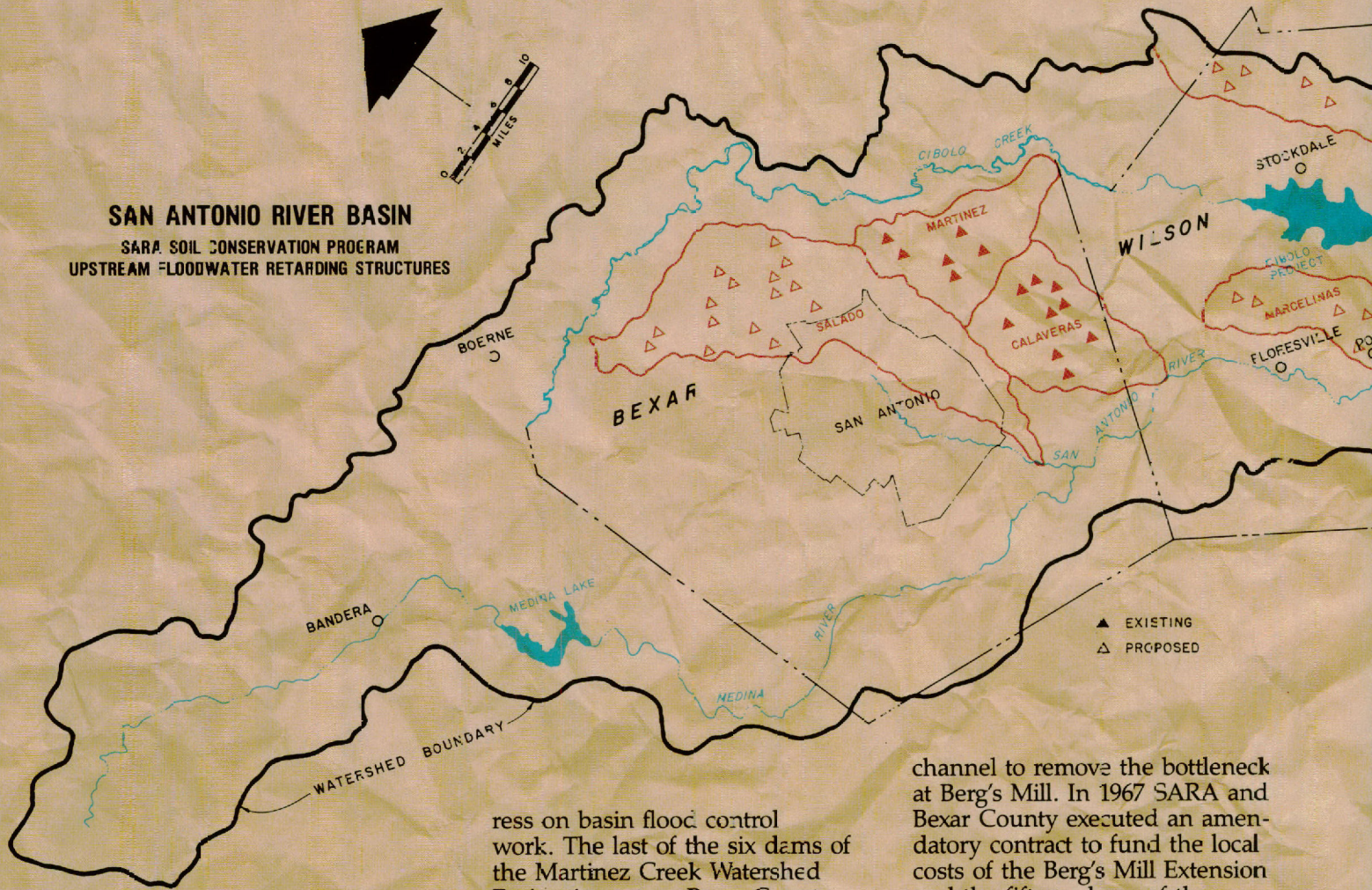


Calaveras Creek - Site 7

with the effort. The study, the first of its kind in the state, was completed in 1964 and it furnished the foundation for the subsequent two years work by the SARA Stream Quality Standards Committee. This Committee guided the preparation of a basin stream water quality standards plan and a regulatory ordinance for its implementation. SARA coordinated these efforts with the Texas Water Quality Board. After public hearings in 1967, the Texas

ances of utilization, the initial phase of the Salatrillo System was constructed and went into service in 1966. Planning began on the Upper Martinez Creek Sewerage System in 1967, and this plant started operating in 1970 to serve development in the Martinez Creek watershed.

SAN ANTONIO RIVER BASIN
 SARA SOIL CONSERVATION PROGRAM
 UPSTREAM FLOODWATER RETARDING STRUCTURES



Having established regional wastewater treatment in the Martinez Creek watershed including its tributary, the Salatrillo watershed, SARA's interest returned to the regionalization of facilities in the Universal City-Selma-Schertz-Randolph A.F.B.-Cibolo area by the end of the decade. SARA received the regional designation from the Texas Water Quality Board to treat wastewater in this area but continued to have difficulty arranging contracts with the entities to be served. Because of these conflicts, the 64th Legislature created the Cibolo Creek Municipal Authority in 1971 for the purpose of providing regional sewerage service to this area.

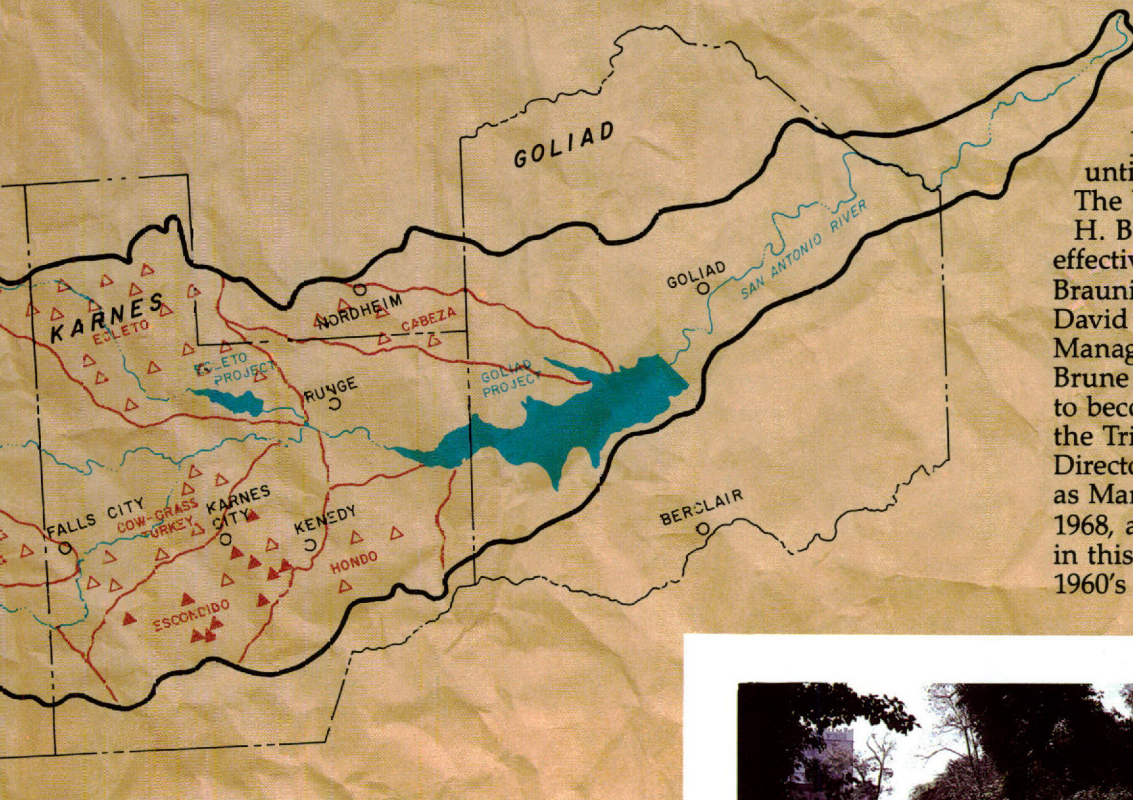
These expanded functions of service in no way extinguished the need for or prog-

ress on basin flood control work. The last of the six dams of the Martinez Creek Watershed Project in eastern Bexar County was completed in 1968. The next year the three dams of the Hondo Creek Watershed Project in Karnes County were completed. To assure the long term utilization of the small watershed projects SARA took over the operation and maintenance of these nine dams in addition to the twenty dams of the Calaveras and Escondido Creek Pilot Watershed Projects.

SARA moved into the decade of the 1960's with escalating right-of-way and construction activities associated with SACIP. SARA and Bexar County revised the 1955 contract in 1960 to extend its term until the year 2000. Local funding for SACIP received additional help from a tax equalization program instituted in Bexar County in 1960. In 1965 severe flooding downstream of the SACIP called attention to the need for extending the flood

channel to remove the bottleneck at Berg's Mill. In 1967 SARA and Bexar County executed an amendatory contract to fund the local costs of the Berg's Mill Extension and the fifteen dams of the Salado Creek Watershed Project in addition to certain work from the original SACIP. The City of San Antonio and the Edwards Underground Water District also contributed to the funding of the Salado Project. Over half of the SACIP was completed in the 1960's and land rights for eight of the Salado dams were acquired.

Beautification of the SACIP flood channel in the historic King William area was supported in the 1960's by the San Antonio Conservation Society and neighborhood residents and organizations. SARA responded with a carefully chosen channel alignment, professionally coordinated landscape design, and numerous construction amenities. Completed in 1968, the King William area project set the standard for future work on Apache Creek and the downtown river and earned the Chief of Engineers'



J. L. Dickson managed SARA until his death on June 22, 1960. The Directors then chose Victor H. Braunig to become Manager effective August 1, 1960. Upon Braunig's resignation in 1966, David H. Brune was selected as Manager July 1, 1966. When Brune resigned March 21, 1968, to become General Manager of the Trinity River Authority, the Directors named Fred N. Pfeiffer as Manager effective April 1, 1968, and he continues to serve in this position today. During the 1960's the staff organization



Before beautification of the SACIP flood channel in the historic King William area

waters of the City Public Service Board's new cooling lake in south-eastern Bexar County, SARA concluded necessary agreements in mid-1967 to enable the operation of Braunig Lake

aligned with the functions given to SARA by the 57th Legislature in 1961. SARA's executive and support personnel occupied centralized offices in the Three Americas Building at 118 Broadway while operations personnel spread to two wastewater plants, two water-oriented public parks, and two field maintenance headquarters. Starting the decade with seven employees, SARA had sixty one employees ten years later.

King William area along the San Antonio River today

1971 national Award of Merit for General Landscape Development. SARA has utilized citizen input as a resource to shape and lend guidance to all urban flood projects undertaken in the 1970's and beyond.

With unhappy fishermen being prohibited from testing the fertile

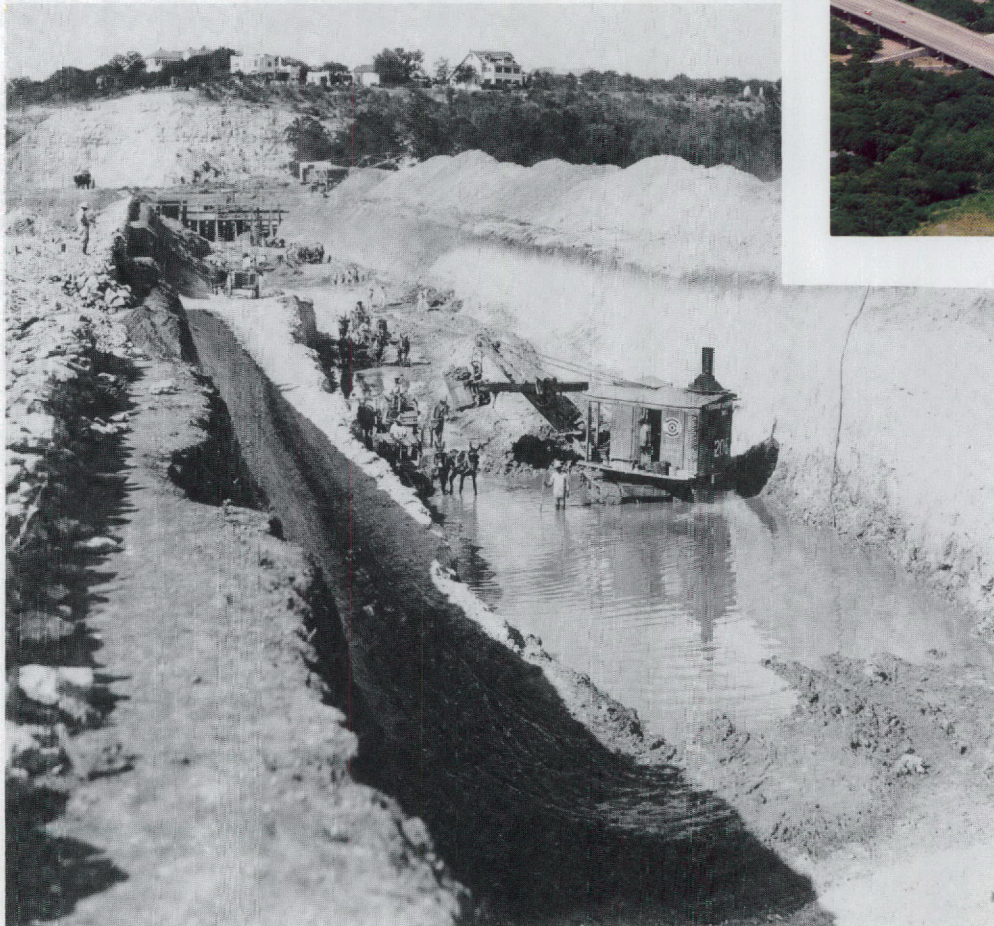
Park. The park opened to public use in December 1967 with temporary facilities. By July 1968 the permanent park facilities were completed. When Calaveras Lake came on line SARA and CPS consummated the Calaveras Lake Park agreement and its park opened to the public in 1970.

1970's

As the decade of the 1970's began, SARA's flood control work involved the completion of the channelization of Alazan and Martinez Creeks. Also, SARA was cooperating with the Urban Renewal Agency and the Model Cities staff of the City of San Antonio to complete local requirements for the Apache Creek flood control improvements. SARA coordinated the project and constructed the 19th Street Bridge-Dam at Elmendorf Lake, the Urban Renewal Agency acquired the necessary land rights, and the City of San Antonio paid all costs from funds made available through the Model Cities program of the U.S. Department of Housing and Urban Development. In 1974 it was initially determined that the Piedras (Six Mile) Creek extension to SACIF for the protection of the historic Espada Aqueduct did not justify federal

involvement. SARA appealed that determination and, with valuable assistance from the San Antonio Conservation Society, obtained federal authorization for this project the following year. By 1975 channelization of Alazan Creek was completed, and most of San Pedro and Martinez Creeks were completed. The channelization of Apache Creek was completed in 1976. On July 19, 1978, the Apache Creek Project design earned for the Fort Worth District the Chief of Engineers' "National Merit Award for Landscape Development".

A \$30 million Amendatory Flood Control Contract was executed between SARA and Bexar County

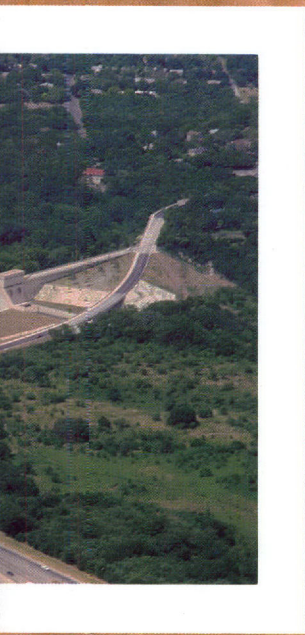


1920's -
Beginning
Construction -
Olmos Dam

in 1976 to insure funding for the Piedras (Six Mile) Creek project, modifications of the Olmos Dam and certain other planned flood control improvements not restricted to funding from prior contracts. The City of San Antonio assumed the funding obligation for those uncompleted parts of the original SACIP which were not eligible for funding from the SARA-Bexar County Flood Control Contact.

On the basis of the 1974 engineering study of the structural integrity and adequacy of Olmos Dam undertaken by the City of San Antonio, SARA began planning to make the dam structurally safe and capable of providing greater flood protection.

An Economic Development Administration Grant obtained by the City of San Antonio and the 1976 SARA-Bexar County Amendatory Contract were major funding sources for the Olmos Dam modifications which then began in 1979 and were completed in 1982.



Olmos Dam today

In 1978 SARA began studies to determine whether the downtown river channel bottom could be lowered sufficiently to accommodate projected flooding without the use of a bypass channel or other options which already appeared to be prohibitively expensive. Construction difficulties and the socio-economic impacts of disruptive and extended heavy construction work in the heart of the downtown business district, better understood because of SARA studies, caused the Corps of



Six Mile Creek - aerial view

Engineers to consider a downtown flood control tunnel in the early 1980's. After SARA completed land rights acquisition and constructed the new bridge across the creek, channelization of the Piedras (Six Mile) Creek extension to SACIP was completed by the Corps of Engineers in 1982.

The San Antonio River Corridor Study completed in June 1973, sponsored by six governmental entities including SARA, provided a conceptual plan for the coordinated development and future utilization of the lands abutting the river and focused on flood control improvements on the San Antonio River in the City of San Antonio from Hildebrand Avenue downstream about six miles to the I.H. 10 crossing of the river. In 1974 the River Corridor Advisory Committee was formed for policy guidance and to improve the coordination of governmental, quasi-

governmental and private efforts on development within the River Corridor area. Committee work was performed by various appointed citizen task forces, as SARA continued and emphasized its policy begun in the late 1960's of public input to flood control project development.

SARA's flood control activities also included the receipt, distribution and public education surrounding the Flood Plain Information Reports prepared and provided by the Corps of Engineers to delineate flood-prone areas along streams within SARA's jurisdiction. SARA also cooperated with the City of Floresville in 1976 to partially fund the Lodi Creek Drainage Project in that city.

Water conservation and development activities by SARA in the 1970's included continuation of the annual cooperative stream-flow gauging contracts with the U.S. Department of the Interior, Geological Survey. These cooperative agreements between SARA and the USGS began in 1954. In 1971 a Medina Lake water exchange study was completed. Sponsored by the Bexar Metropolitan Water District, City of San Antonio, Edwards Underground Water District, City Public Service, City Water Board and SARA, the study concluded that the exchange of San Antonio's wastewater for irrigation requirements of the Bexar-Medina-Atascosa Water District from Medina Lake was not economically justified and that utilization of Mitchell Lake and wastewater at Braunig and Calaveras Lakes needed additional study. Earlier, in 1970, the City Water Board of San Antonio expressed interest in contracting with SARA to develop the Applewhite reservoir project on the Medina river, and the Cibolo project on Cibolo Creek, either as federal or local projects. SARA agreed to cooperate, and congressional authorization of the Cibolo Reservoir Project was obtained in October, 1974. The City Water Board then withdrew its support for this project to again pursue securing water from the Canyon Reservoir Project.

To promote water conservation in 1979 SARA enacted an Urban Water Conservation Program requiring water-saving plumbing fixtures in all new development added to the sanitary sewer systems in the SARA service areas.

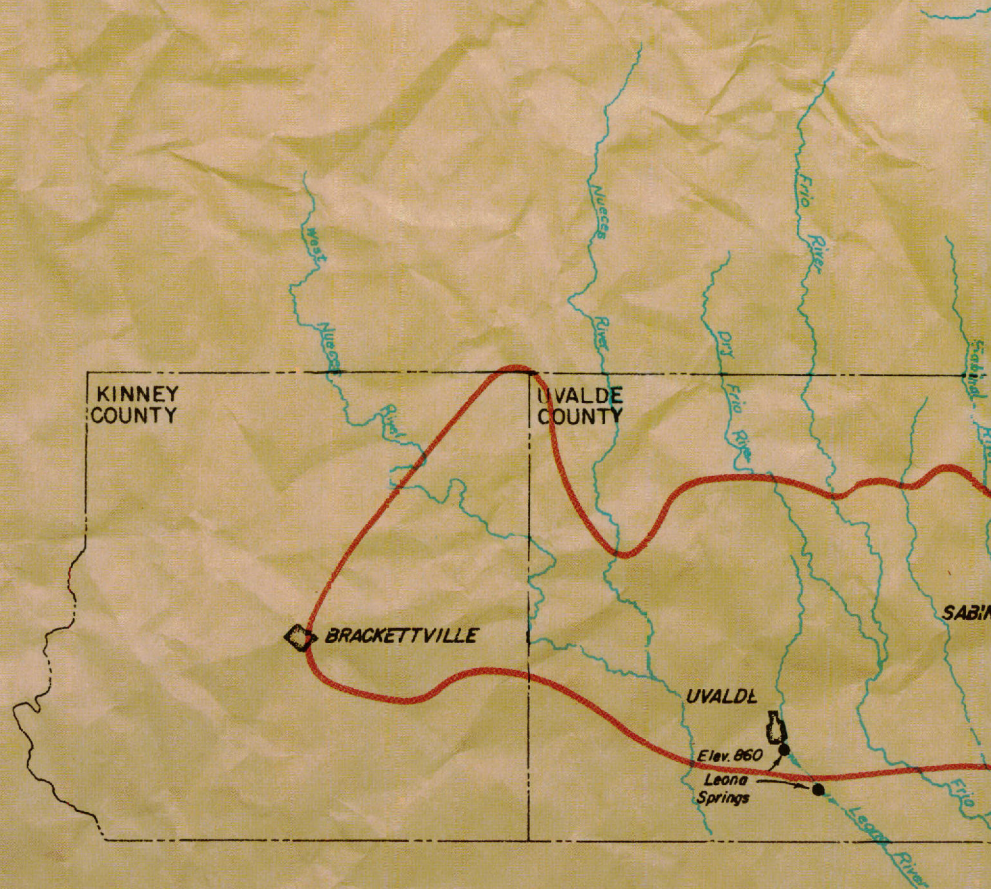
SARA's water pollution prevention activities increased substantially in the 1970's. The Bexar County Edwards Aquifer Protection Committee, formed in 1969 with members from SARA, the City of San Antonio, the Edwards Underground Water District, the City Water Board of San Antonio and the San Antonio Metropolitan Health District, made constructive suggestions to the Texas

Water Quality Board concerning its first Board Order for protection of the Edwards Aquifer. Passed in 1970, the Order applied to future development on the recharge zone. With participation by SARA, the Edwards Task Force Committee of the Alamo Area Council of Governments carried on this effort in 1973. SARA remained active throughout the 1970's in all efforts to minimize pollution of the Edwards Aquifer.

From 1970 to 1973 SARA litigated against eight polluters in the San Antonio River basin. All cases were concluded successfully, thus establishing a public awareness of SARA's commitment to water

pollution control. With recognized expertise in the field, SARA reduced water pollution by contracting to operate and maintain seven wastewater plants in Bexar County which had previously been operated inadequately. While thus involved, SARA worked in the 1970's to reduce the overall number of wastewater plants in Bexar County thereby supporting the regionalization of facilities.

In 1971 SARA became a signatory to the Texas Water Pollution Control Compact, whereby the River Authorities of Texas joined together to sell bonds which would serve as the then-unavailable 25 percent state

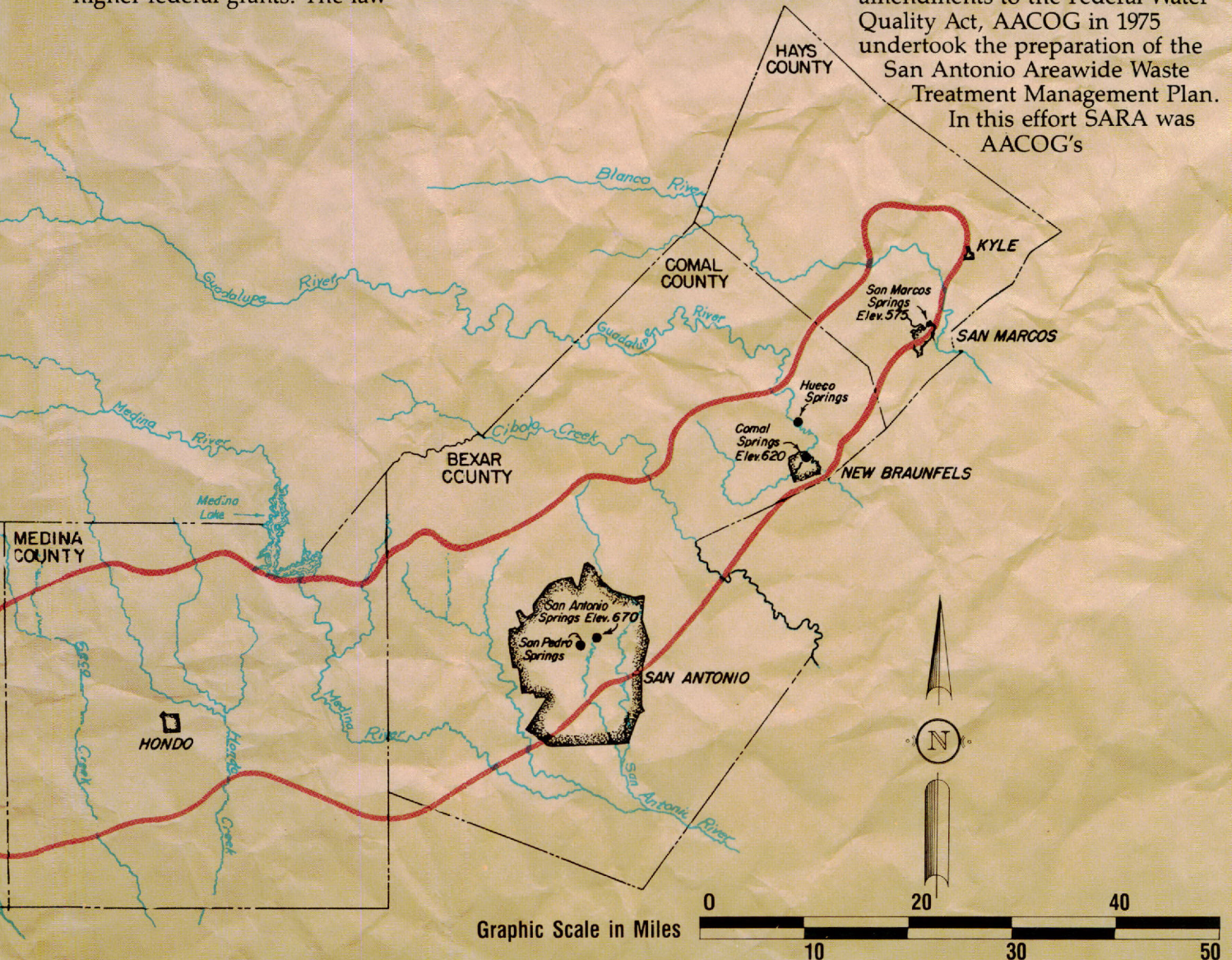


grants to applicants for Federal Water Pollution Control Administration grants for wastewater facilities improvements. These bond funds would then qualify those applicants for a federal grant increase from 33 percent to 55 percent in the interim period until such time as Texas could submit a constitutional amendment to the voters to provide similar funds from a state grants program. SARA sold bonds for the City of Menard, the City of San Antonio, Nueces County WCID No. 3, and the City of Ingleside, and entered memorandum agreements with four other grantees to qualify them for the higher federal grants. The law

was later changed to eliminate the necessity of the Compact.

SARA provided to the Alamo Area Council of Governments the Project Director for AACOG's Water Quality Planning Study of the Upper San Antonio River Basin. Started in 1968, AACOG used federal funding made available through a contract with the Texas Water Quality Board. Produced by this study, AACOG's Interim Regional Wastewater Development Plan for the upper basin was adopted by SARA in 1971. In the meantime, SARA obtained from the Federal Water Pollution Control Administration a water quality planning

grant for purposes set out in Section 3(c) of the Federal Water Quality Act of 1965. Called the "3(c) Planning Project", this was a comprehensive follow-on study utilizing the results of AACOG's upper basin studies but covering the entire San Antonio River basin. By sub-contract SARA utilized selected AACOG staff expertise to assist with the 3(c) Planning Project. The product of the 3(c) Planning Project was the San Antonio River Basin Water Quality Management Plan which was substantially completed in October, 1972. After new planning requirements were established in Section 208 of the 1972 amendments to the Federal Water Quality Act, AACOG in 1975 undertook the preparation of the San Antonio Areawide Waste Treatment Management Plan. In this effort SARA was AACOG's

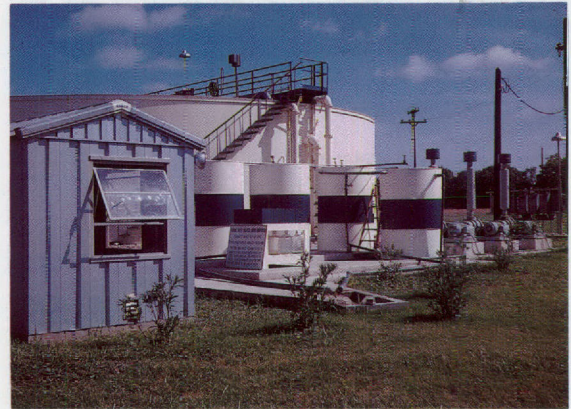


EDWARDS UNDERGROUND WATER RESERVOIR

subcontractor for the most important planning task of stream characterization. SARA itself prepared the plan for the rest of the San Antonio River basin outside the AACOG planning area. Both efforts involved extensive public participation and were completed in 1978.

Rapid population growth in the service areas of SARA's Upper Martinez and Salatrillo Creek wastewater systems occurred in the early 1970's. These relatively new systems

immediately took public bids and construction of the expanded facilities at the Upper Martinez Creek plant was completed in early 1974. The Salatrillo plant was also at capacity



Original Salatrillo Wastewater Treatment Plant

and 3.52 MGD, respectively.

Beginning in 1976 and for the next ten consecutive years SARA contracted to provide laboratory analytical services from its central laboratory to the local area offices of the Texas Water Quality Board and its successor-agency, the Texas Department of Water Resources in support of their efforts to monitor and control water pollution. SARA also regularly provided lab services which assisted municipalities and other state-permitted wastewater dischargers in the San Antonio River basin to meet the water quality requirements of their permits.

SARA's soil conservation efforts in the decade of the 1970's involved the delivery of adequate land rights so that eight of the fifteen dams of the Salado Creek Watershed Protection and Flood Prevention Project could be completed in Bexar County by the Soil Conservation Service. In Karnes County two additional dams on the Escondido Creek watershed were constructed, and the concrete-lined Nichols Creek Channel Improvement in Kenedy was completed. SARA assumed the responsibility for the operation and maintenance of all of these structures, taking care of sixteen dams and the Nichols Creek Channel in Karnes County and twenty-one dams in Bexar County by the end of the decade.

In SARA's parks and recreation activities, both Braurig Lake and



Brush rotor in the oxidation ditch at the Martinez Wastewater Treatment Plant - 1970

were marginally financed and heavily dependent on federal grants for the expansion of plant capacity. Since SARA was not able to obtain federal funding because the guidelines for federal grants had not yet been released by the new Environmental Protection Agency, the major developer in the Upper Martinez Creek plant service area offered to construct a 1.0 MGD expansion to the plant. This expansion would be in return for a small amount of cash and credit which would be applied to the cost of future connections to the system. On that basis, SARA

and was threatened with the possibility of curtailment of further connections to the plant. A consortium of developers in that service area formed a joint venture to finance the expansion of the Salatrillo Plant in a manner similar to the Upper Martinez plant. Construction of this plant expansion was completed by the end of 1974. To alleviate these capacity problems in the future SARA immediately started the extensive facilities planning process required to qualify for federal grants for the next plant expansions. As the decade of the 1970's ended SARA's staff engineers were designing state-of-the-art facilities to upgrade the quality of the effluents and to expand the capacities of the Upper Martinez and Salatrillo Creek plants to 2.21

Calaveras Lake Parks became self-sustaining operations by 1972. To better meet increasing public demands, SARA employees took over the concession operations at Braunig Lake Park in 1975 when the Authority failed to receive bids from private concessionaires. Revenues were sufficient to allow construction of a fishing pier in 1977 and a new water well in 1979 at Braunig Lake Park. Opening in 1970 with minimal public facilities, Calaveras Lake Park customers welcomed the addition of another boat ramp and additional paved parking area in 1971 for which partial funding was provided by the Texas Parks and Wildlife Department. Rudimentary fish hatchery ponds at Calaveras Lake provided large-mouth bass fry in 1973 and 1974 for replenishment stockings of the lakes. Ongoing fisheries management activities by the Texas Parks and Wildlife Department personnel were extremely successful, and public use of the lakes increased. Concession activities at Calaveras Lake began to be performed by SARA employees in 1978. Increased revenues allowed additional park roads to be paved in 1979, when SARA also designed and contracted for the construction of a

much-needed new concession building.

In 1979 SARA cooperated with the Texas Parks and Wildlife Department to underwrite the installation of a public conference room concurrent with the construction of the public swimming pool facility at the Goliad State park, and supported the initiation of planning by the National Park Service for the San Antonio Missions National Historic Park.

Rapidly outgrowing its leased office space in the Three Americas Building, SARA began planning its next move in 1970. The Building Committee of the SARA Board of Directors in 1971 recommended the construction of a single story office building which included space for SARA's central water quality laboratory. SARA added to property already owned adjacent to the San Antonio River when the residence at 206 W. Johnson St. was purchased in 1972. This and additional property would later become SARA's new main office site.



Calaveras Lake recreation area

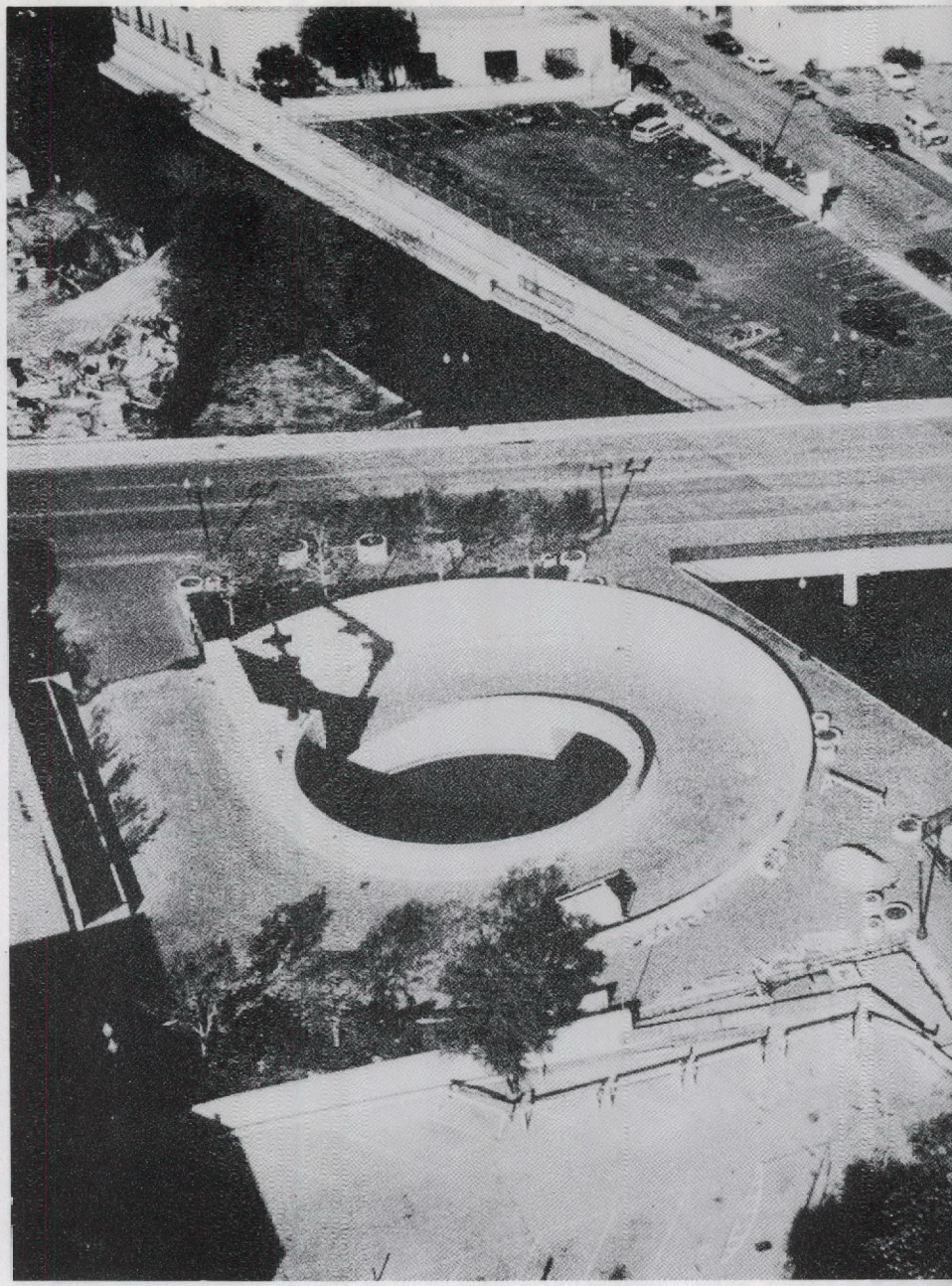
In 1972 when the water quality laboratory personnel moved from the Salatrillo Creek wastewater treatment plant to temporary quarters in the house at 206 W. Johnson St., the vacated space at the Salatrillo plant was immediately filled by the growth of the SARA flood control and small watersheds projects maintenance activities. The crew and equipment of Maintenance Unit 1 moved into their self-erected new building at Calaveras Lake in 1973. Maintenance Unit 3 which maintains the Bergs Mill and Piedras Creek flood control channels and Braunig and Calaveras Lake Parks occupied lease space at Stinson Airport. Construction of SARA's new main office building and laboratory began in 1974 and in 1975 the staff moved into the new facility at 100 E. Guenther Street.

During the 1970's SARA purchased its first mobile radio system, moved into the age of computers, and began to develop an on-staff civil engineering design capability for its construction projects. Victor H. Braunig retired from his advisory position with the Board of Directors on June 30, 1978. By the end of the decade, with SARA's operations fiscally sound, the SARA Board of Directors chose to cease altogether to levy the SARA ad valorem tax which had been approved by the voters of the District in 1961. During the 1970's SARA added ten more employees to its staff, finishing the decade with seventy-one employees.



Nichols Creek Flood Control Channel - 1978

1980's

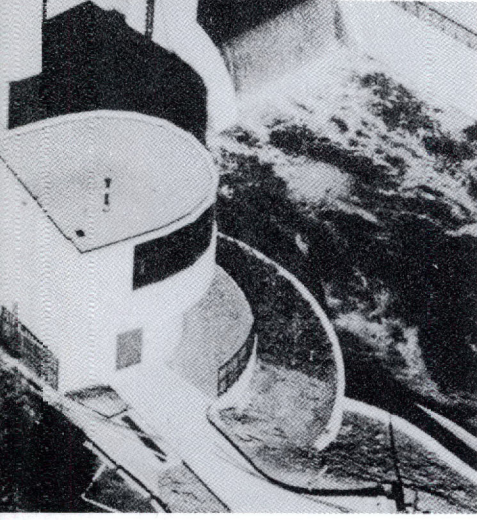
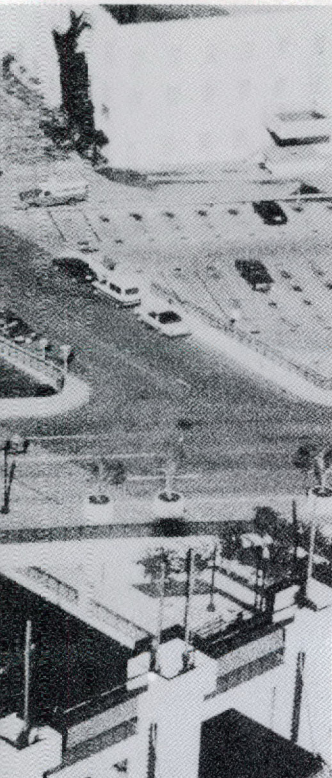


Newly completed Nueva Street Marina/Dam/Bridge

Flood Control

In the City of San Antonio structural modifications and reinforcement of Olmos Dam were completed in 1981. Box culverts providing necessary flood control on San Pedro Creek from Quincy Street upstream to Poplar Street were constructed by the Texas Highway Department in the early 1980's to accommodate drainage from the developing I.H. 10 expressway system. SARA rehabilitated the decorative stone retaining walls and provided a river access maintenance ramp and other amenities in the river behind the reconstructed Muni-

pal Auditorium in 1985. The extensive channel improvements and beautification amenities on the San Antonio River from Johnson Street upstream to Nueva Street neared final completion at the end of 1987. With construction administration and quality control provided by SARA, the complex, multi-purpose Nueva Street Bridge, Dam and Marina Project was substantially completed in 1987. Funded by both the City of San Antonio and SARA, this project provides water elevation control in the downtown river loop, docking and upkeep facilities for patrol and maintenance boats on the river,



Channel and Nueva Street before construction of the Marina / Dam / Bridge

river maintenance staff office space, and a control center for the operation of San Antonio's municipal flood control system during flood events.

In 1982 the Corps of Engineers advanced the concept of the use of an underground tunnel to provide flood control through the congested downtown reach of the San Antonio River. The concept was well received and expanded to include not only a greater length of the San Antonio River project but also a parallel tunnel to protect the downtown reach of the San Pedro Creek. By 1985 the preliminary designs of the two

tunnels showed that they would be approximately 27 feet in bore diameter, concrete-lined, and would lie approximately 130 feet underground. Floodwater would enter the San Antonio River Tunnel through an inlet structure above Josephine Street near the McAllister Freeway, flow three miles underground, thereby bypassing the surface channel of the river downtown, and return to the river through a discharge structure near Roosevelt Park at Lone Star Boulevard. The San Pedro Creek tunnel inlet is located at the I.H. 35 and I.H. 10 interchange near Columbus Square. From there floodwaters would be carried one mile underground, returning to the surface channel of San Pedro Creek at Guadalupe Street. Estimated to be completed in 1991, construction of the tunnels began in 1987.

Water Conservation and Development

In 1981 SARA participated in regional forums sponsored by the Edwards Underground Water District to provide input to an Ad Hoc Committee on Water Planning for the City of San Antonio. SARA testified at the public hearing by the Texas Water Commission regarding the development of the water rights appropriation permit which was granted for the proposed Applewhite Reservoir in 1982.

SARA participated in a technical advisory capacity in the "San Antonio Regional Water Resource Study", a comprehensive study of

water needs funded by the City of San Antonio and the Edwards Underground Water District over a three-year period ending in 1986. SARA staff continued to serve as a member of the Technical Resources Group of the Implementation Advisory Task Force of the Regional Water Resources Study.

To provide updated cost figures and other essential environmental and resource planning,

SARA joined with the City of San Antonio and the Guadalupe Blanco River Authority in 1984 to fund a detailed "hardware" study of the proposed Cibolo, Cuero I, Cuero II, and Goliad Reservoirs. Called the "Water Availability Study for the Guadalupe and San Antonio River Basins", this study was completed in 1986.

SARA joined the Edwards Underground Water District, the Texas Agricultural Extension Service, and the San Antonio Botanical Center in the establishment of the Xeriscape Project in 1985. This project demonstrated water conservation through selective landscaping with native plants which are water-efficient, as well as through water-saving irrigation techniques.

Water Quality Activities

In 1981 SARA completed the engineering design of the new

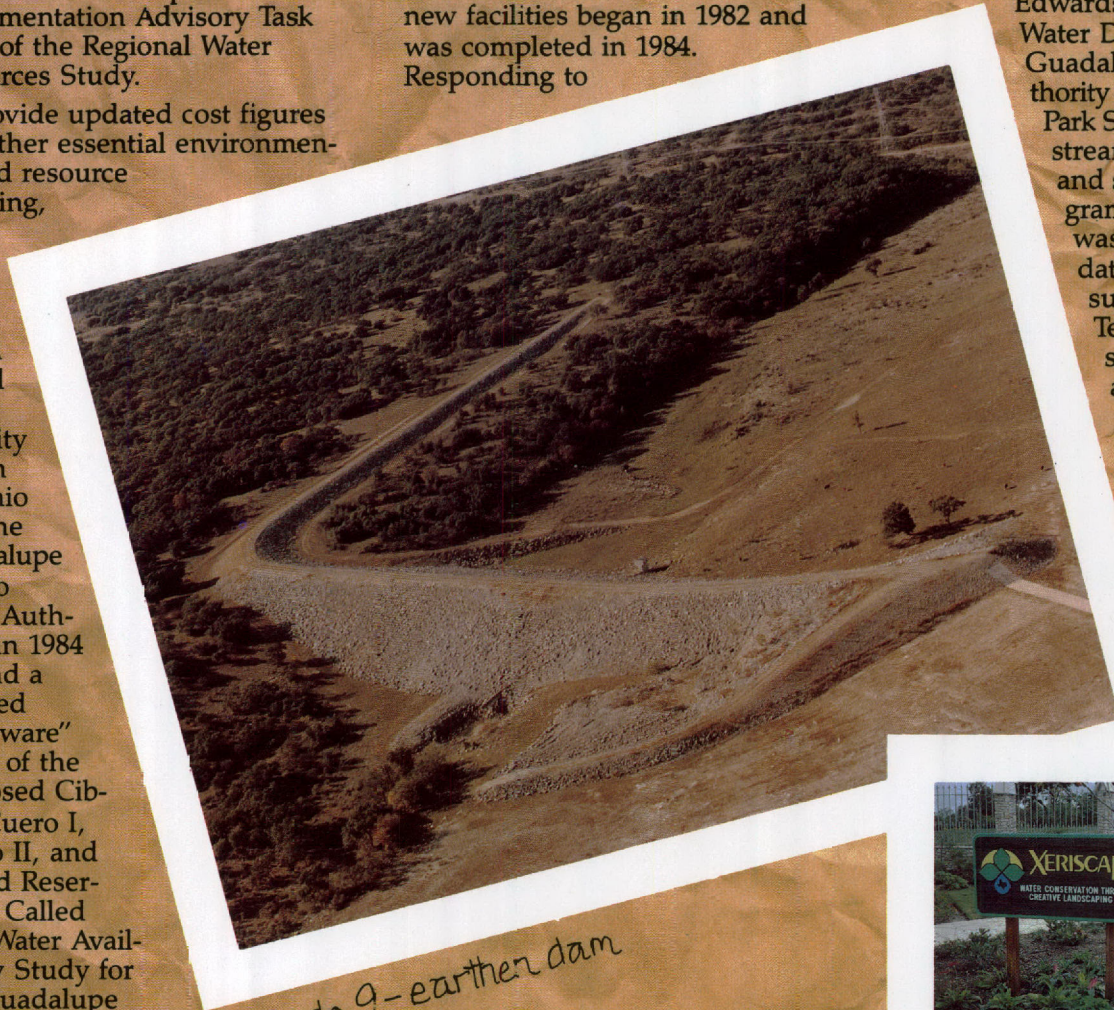
facilities intended to expand the capacities of the Salatrillo and Upper Martinez Creek wastewater plants to 3.52 and 2.21 MGD, respectively, and to upgrade the effluent quality from both of them. Construction of the new facilities began in 1982 and was completed in 1984. Responding to

wastewater system.

In the 1980's SARA's regional water quality laboratory expanded its services, performing special studies and/or analyses for the Nueces River Authority,

Edwards Underground Water District, Upper Guadalupe River Authority and the National Park Service. The basin stream monitoring and surveillance program begun in 1962, was continued and data from it was supplied to the Texas Natural Resources Information System.

Continuing complaints of river pollution downstream from the City of San Antonio prompted SARA Directors to urge im-



Salado 9 - earthen dam

development needs in the watershed downstream of the existing Upper Martinez Plant, SARA commenced construction of its third wastewater system in 1985. With an initial capacity of 1.0 MGD, the new Martinez II wastewater treatment plant was completed in 1986. Planning began in late 1985 and underlying preliminary agreements were signed in early 1986 for a temporary pumping operation to be replaced by a permanent new wastewater treatment plant in the Salatrillo Creek watershed downstream of the existing wastewater treatment plant. Although the construction dates remain speculative, these events marked the beginning of SARA's fourth



Saving resources

improvements at the City's sewage treatment plants. When the problem persisted, SARA, joined by the Texas Department of Water Resources (Texas Water Commission), filed suit to correct water quality violations. The litigation was settled with the City setting goals and time constraints for bringing its system into compliance as well as paying SARA and the State of Texas for damages to the river. From the money received SARA established a

water quality enhancement fund which was used to expand the basin streamflow gauging and water quality monitoring program carried out cooperatively with the U.S. Geologic Survey. The effects on the aquatic ecology of chemical spills from two major railroad accidents in Bexar County were also monitored by SARA.

Soil Conservation

With the addition of four Salado Creek Watershed Protection and Flood Prevention Project dams during the 1980's, SARA, at the end of its first 50 years, operated and maintained sixteen dams and the Nichols Creek channel in Karnes County and twenty-five dams in Bexar County. As local sponsor of these floodwater retention dams which were designed and constructed by the Soil Conservation Service, U.S.D.A., SARA has been placed in an unresolved quandary when dam safety requirements of the U.S. Army Corps of Engineers resulted in two of the structurally sound SCS structures being classified as hydraulically "unsafe". The problem will remain unresolved unless new criteria are adopted or structural modifications are made.

Parks and Recreation

As revenues became available SARA carried out a planned and systematic program of capital improvements at both Braunig and Calaveras Lake Parks in the 1980's. Fisheries management at these lakes by the Texas Parks and Wildlife Department was dramatically successful and park visitation remained high. In cooperation with the San Antonio Metropolitan League of Bass Clubs and the Boating Trades Association of Texas, SARA rehabilitated the old fish hatchery ponds at Calaveras Lake and used them as nursery ponds to improve the survival of large-mouth bass fry produced in state hatcheries and delivered to the lake.

SARA continued its support of the San Antonio Missions

National Historic Park with the conveyance to the National Park Service several parcels of land adjacent to the San Antonio River to expand and enhance the newly created National Park.

Industrial Development

Pursuant to the Industrial Development Act of 1979, SARA formed, chartered and organized the San Antonio River Industrial Development Authority (SARIDA) on August 6, 1979. Its purpose is to foster employment through economic development by issuing tax-free revenue bonds for qualifying commercial, industrial and manufacturing enterprises expanding or newly-locating within SARA's district boundaries. By SARA's 50th Anniversary in May 1987 SARIDA had

have increased correspondingly. In 1985 the general office could no longer accommodate all the employees. While the Building Committee of the Board of Directors considered permanent options for necessary office space, SARA leased and occupied additional space in a refurbished 2-story house at 1303 S. Main, called the "SARA Annex". Construction of a two-story addition to the SARA general office began on-site in 1986 and was still underway in 1987. Its efficiency somewhat hampered by the need to operate from two offices while construction was in progress, SARA's staff eagerly awaits the move into its new office sometime in its 51st year. On its 50th Anniversary on May 5, 1987 the SARA staff numbered 116 employees.

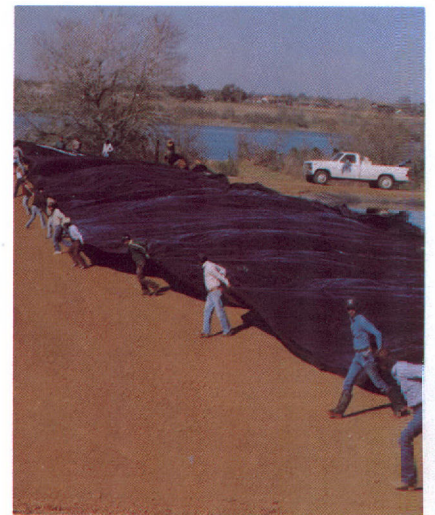
Calaveras nursery pond completed



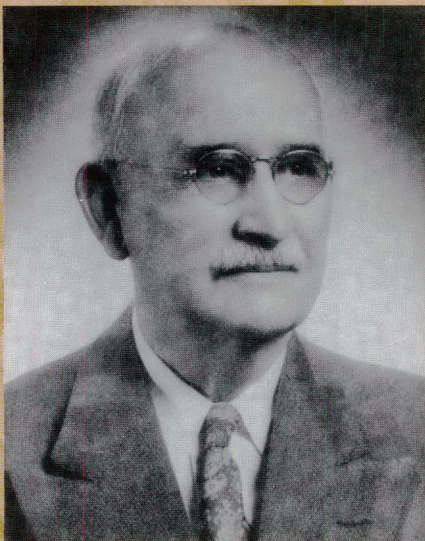
assisted 37 industries by selling over \$111 million in bonds and creating 2850 new jobs.

Administration

In order to design, construct and maintain SARA projects during the eighties, the engineering work force more than doubled in size, a substantial increase in personnel has been required to operate and maintain the expanding wastewater facilities, and administrative support personnel



Spreading of the liner for the nursery pond



include the river area in Wilson, Karnes and Goliad Counties. The first contract with Bexar County was secured in 1952 to finance the local costs of the flood control project. The San Antonio Channel Improvement Project was federally authorized in 1954 and is still under construction today. The San Antonio River Watershed Study was completed by the Soil Conservation Service in 1952. In 1954 Col. Tuttle influenced federal appropriations for pilot watershed project construction to such an extent that one half of these projects for the entire state of Texas were located in the San Antonio River basin.

Col. Tuttle was the driving force during the first nineteen years of the history of the San Antonio River Authority. When he could secure no more donations of money or time from others to accomplish the work of the District he dug into his own pockets and rolled up his sleeves another notch. He was 64 years old when he took on the chairmanship of the fledgling San Antonio River Canal and Conservancy District, and was still working vigorously on its programs on the day of his death, September 8, 1954, at 80 years of age.

Managers

COL. W. B. TUTTLE 1937-1954

Born in Austinburg, Ohio, on July 3, 1874, William Bockhout Tuttle graduated from the University of Virginia as a Mechanical Engineer. Migrating from New Jersey in 1906 to take employment with the San Antonio Gas and Electric Company, his first job was to build a gas plant near the Missouri-Pacific tracks to supplement the old San Pedro Creek Gas Works. He served the company in progressively responsible positions becoming Vice President, General Manager, President and finally Chairman of the Board in 1935. When the City of San Antonio purchased the utility company in 1942, renaming it the City Public Service Board of San Antonio, Tuttle continued as its Chairman until 1948.

His military career began in 1892 when he was a trooper in the First Virginia Cavalry. With active duty during World War I, Tuttle served as a Colonel in the Second Texas Cavalry in 1918. Later, in a reserve status, he commanded the 315th Army Engineers from 1926 to 1938.

During Col. Tuttle's tenure as Chairman, the jurisdiction of the San Antonio River Canal and Conservancy District expanded from Bexar County only to



JOHN LAFAYETTE DICKSON

Manager 1954-1960

Born May 21, 1891, in Tennessee, J. L. Dickson came to Texas to live with his uncle after the death of his father in 1903. He graduated from high school in Velasco, Texas in 1907, and from Texas A & M in 1912 as a Civil Engineer. His first employment was with the Medina Valley Irrigation Company and later he pursued railroad design and construction work. He then worked in sulphur mining as Superintendent of the Freeport Sulphur Company. In 1929 he became associated with the newly developing Texas Highway Department program, later rising to District Highway Engineer in San Antonio. Next he became Engineer of Road Design in the Austin office where he published the first complete set of State Highway Standard Specifications. He returned to San Antonio in 1946 as the engineer-manager for design and construction of the San Antonio urban expressway system. He left the Texas Highway Department to become the City of San Antonio's first Director of Public Works on February 1, 1952. On October 12, 1954, the Board of Directors employed Dickson to become SARA's first Manager on a part-time basis. He

became the full-time Manager on January 1, 1955.

During J. L. Dickson's tenure as Manager annual budgets were prepared, regular staffing began, and SARA began to operate as an agency of local government rather than a group of appointed directors supported by either donated expertise or the expertise and production of paid consultants. Dickson directed the first systematic efforts to acquire land rights, relocate utilities, and reconstruct vehicular bridges in support of construction of the new San Antonio Channel Improvement Project by the U.S. Army Corps of Engineers.

Dickson was a Rotarian, served as a chapter president of the Texas Society of Professional Engineers, and was honored by that organization as "Engineer of the Year" in 1952. His death on June 22, 1960, created a vacancy in the SARA Manager's position.



VICTOR HENRY BRAUNIG

Manager 1960-1966

Victor H. Braunig was born in Hallettsville, Texas on May 22, 1890. Valedictorian of his class, Braunig graduated from Texas

A & M in 1910 as an electrical engineer. He went to work for the San Antonio Gas and Electric Company, decided he liked the work, and retired 48 years later. He served as General Manager of the City Public Service Board from 1949 until retirement in 1958. He then remained two more years in a consulting capacity.

Braunig became Manager of the San Antonio River Authority after J. L. Dickson's death in 1960. During his six year tenure SARA was reorganized by the Texas Legislature. The agency began levying a 2¢ ad valorem tax, attempted without success to assure a surface water supply for San Antonio, centralized its offices, increased its staff, obtained authorization to add the Berg's Mill Extension to the San Antonio Channel Improvement Project, and obtained completion of the Salado Creek Watershed Work Plan. Also, the Barge Canal restudy began, construction progress was made on many watershed projects, the first basin-wide water pollution control planning program was undertaken, and the Salatrillo Creek Sewerage Project started.

During Braunig's tenure his principal staff assistant was David H. Brune. Brune's keen administrative and organizational skills complemented Braunig's solid leadership, total public candor, and conservative management style. Braunig trained Brune well and also contributed to the progress and growth in the organization of another man employed by Brune, Fred Nelson Pfeiffer. On June 30, 1966, Vic Braunig retired, knowing he was leaving SARA's active management in good hands. Braunig continued to serve in a part-time capacity as Assistant to the Chairman of the Board until June 30, 1978.

Victor H. Braunig died on September 4, 1982.



**DAVID HAMILTON
BRUNE**

Manager 1966-1968

David H. Brune was born on April 23, 1930, at Long Beach, California. He graduated from Jesuit High School in Dallas in 1948. After two years of active duty with the Navy in the Pacific he graduated from the University of Texas School of Law in 1958, and was admitted to the State Bar of Texas that year. While in the private practice of law Brune, working for the Authority, was the principal author of the legislation which reorganized SARA in 1961. He became a full-time employee of the San Antonio River Authority on January 1, 1963.

During his tenure as Manager SARA's water pollution control program became the first such basin-wide program ever initiated in Texas and centralized maintenance of all soil conservation dams in Bexar and Karnes counties was begun.

David H. Brune served as Manager of SARA from July 1, 1966 to March 21, 1968 when he resigned to become General Manager of the Trinity River Authority of Texas.



**FRED NELSON
PFEIFFER**

Manager 1968-Present

Fred N. Pfeiffer was born in San Antonio, Texas January 21, 1938. He attended the University of Texas and received his Bachelor of Science in Civil Engineering in 1959 and Doctor of Jurisprudence in 1962. He was admitted to the practice of law in Texas that same year.

He enlisted in the Texas Air National Guard and served in the enlisted ranks for three years before accepting a commission in the Judge Advocate General's Corps of the U.S. Naval Reserve.

Pfeiffer entered the private practice of law in January of 1963. He became a full-time employee of the San Antonio River Authority on June 1, 1963. He was licensed as a registered professional engineer in the State of Texas in April 1967. He progressively held the position of Assistant General Counsel, Operations Manager and Assistant Manager before being named Manager on April 1, 1968.

During his tenure as Manager, Pfeiffer has served as President of the Texas Water Conservation Association, a member of the Board of Directors of the National Water Resources Association, and

by gubernatorial appointment as a member of the Western States Water Council and Chairman of the Texas Advisory Commission on Intergovernmental Relations.

In 1981-82 Pfeiffer served as Chairman of the Water Resource Use and Conservation Committee of the Governor's Water Task Force and continues to serve as a member of the Water Resources Official's Advisory Committee of the Texas Water Resources Institute, Texas A & M University.

Pfeiffer has perpetuated the public candor and conservative management styles of both prior Managers under whom he served, Victor Braunig and David Brune. He has individually encouraged and exemplified the agency's commitment to public service and to the development and protection of soil and water resources.

Under his leadership, SARA projects have attained three Chief of Engineer Merit Awards, a Merit Award in 1985 from the Texas Chapter of the American Society of Landscape Architects, and the Consulting Engineers Council of Texas State Award in 1982. The SARA organization also received the San Antonio Chapter of the American Institute of Architects Community Excellence Award in 1970, and was designated by the Fort Worth Press as the Outstanding Water Conservation Group in Texas in 1969.

SAN ANTONIO RIVER AUTHORITY BOARD OF DIRECTORS

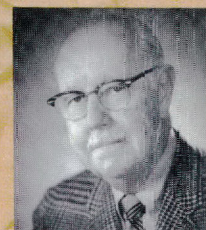
Charles Baumberger, Sr.	Bexar	1937 — 1939
E. F. Kifer	Bexar	1937 — 1949
Brooks B. McGimsey	Bexar	1937 — 1958
P. D. Mathis	Bexar	1937 — 1946
Morris L. Roark	Bexar	1937 — 1959
Col W. B. Tuttle (Chairman 1937-54)	Bexar	1937 — 1954
Reagan Houston	Bexar	1939 — 1949
John C. Merchant (Chairman 1961-62)	Wilson	1939 — 1962
Alfred B. Schroeter	Karnes	1939 — 1961
John H. Weber	Goliad	1939 — 1961
Martin C. Giesecke (Chairman 1962-66)	Bexar	1948 — 1977
Frank T. Drought (Chairman 1954-1961)	Bexar	1949 — 1961
Melrose Holmgreen	Bexar	1949 — 1961
E. E. Voight	Bexar	1954 — 1964
Leslie R. Neal (Chairman 1967-68)	Bexar	1958 — 1969
Gen. H. F. Kramer	Bexar	1960 — 1964
Charles Albidress, Jr.	Bexar	1961 — 1963
Arthur C. Anderson	Bexar	1961 — 1965
Thomas B. Baker	Karnes	1961 — 1961
John Freeman Lott, Jr.	Goliad	1961 — 1965
Lawrence L. Reasoner	Karnes	1961 — 1977
Hugh B. Ruckmar, Jr.	Karnes	1961 — 1986
Edward W. Schneider	Wilson	1961 — 1970
L. H. Von Dohlen (Chairman 1968-74)	Goliad	1961 — 1983
C. W. Millikin, Jr.	Wilson	1962 — 1970
Don Marshall	Bexar	1963 — 1966
Paul N. Howell	Bexar	1964 — 1965
Woodward W. Aitgelt, Jr.	Bexar	1965 — 1973
George Casse	Bexar	1965 — 1967
William G. McCampbell, Jr.	Goliad	1965 — 1977
Ernest Wohlschlegel	Bexar	1965 — 1971
Joseph A. Potts	Bexar	1966 — 1967
George De La Garza	Bexar	1967 — 1969
J. W. "Bill" Perry	Bexar	1967 — 1969
Thomas Drought	Bexar	1969 — 1973
Thomas F. Gallagher	Bexar	1969 — 1973
Curtis C. Gurin, Sr.	Bexar	1969 — 1971
W. W. Lorerz	Wilson	1970 — Present
E. A. Flieller (Chairman 1983-85)	Wilson	1971 — 1985
William E. Hayman	Bexar	1971 — 1977
Paul K. Herder (Chairman 1974-79)	Bexar	1971 — Present
David Evans	Bexar	1973 — 1987
Reynolds N. Cate	Bexar	1973 — 1979
Hugh Falff, Jr.	Bexar	1973 — 1981
Truett Hunt	Karnes	1977 — Present
W. W. "Bo" McAllister, III (Chairman 1979-83)	Bexar	1977 — Present
Mary McCampbell	Goliad	1977 — Present
Irma Mireles	Bexar	1977 — 1983
Cecil W. Bain (Chairman 1985-Present)	Bexar	1979 — Present
Allan E. Polunsky	Bexar	1981 — Present
Martha Clifton McNeel	Bexar	1983 — Present
R. H. Ramsey, Jr.	Goliad	1983 — Present
J. C. Turner	Wilson	1985 — Present
Hugh Ruckman, III	Karnes	1986 — Present
Nancy Marchbanks Steves	Bexar	1987 — Present

Board Chairman

1937-Present



Col. W. B. Tuttle
1937-54



Frank T. Drought
1954-61



John C. Merchant
1961-62



Martin C. Giesecke
1962-66



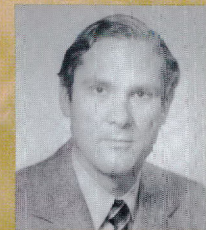
Leslie R. Neal
1967-68



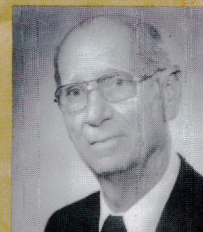
L.H. Von Dohlen
1968-74



Paul K. Herder
1974-79



W.W. McAllister, III
1979-83



E. A. Flieller
1983-85



Cecil W. Bain
1985-present



*San
Antonio
River
Authority*

*Annual
Report*

1987

Board of Directors



Officers and Executive Committee

Chairman:
Cecil W. Bain

Vice Chairman:
Truett Hunt

Secretary:
W.W. Lorenz

Treasurer:
Mary McCampbell

Member of the Executive
Committee at Large:
Allan B. Polunsky

Front row:
(left to right)

Mary McCampbell, 1991
Goliad County

Truett Hunt, 1989
Karnes County

Cecil W. Bain, 1991
Chairman
Bexar County

W.W. Lorenz, 1989
Wilson County

Back row:
(left to right)

J.C. Turner, 1991
Wilson County

Paul K. Herder, 1991
Bexar County

Martha Clifton McNeel, 1989
Bexar County

R.H. Ramsey, Jr., 1989
Goliad County

H.B. Ruckman III, 1991
Karnes County

Nancy Steves, 1993
Bexar County

W.W. "Bc" McAllister, III, 1989
Bexar County

Allan B. Polunsky, 1993
Bexar County

Management



Pictured left to right

*Dorian French
Chief Engineer*

*Judith T. Pavlik
Controller*

*Fred N. Pfeiffer
General Manager*

*Dennis Marrin
Chief, Administrative Services*

*F. Blair Warren
Assistant Manager*

*Randolph Schwenn
Chief, Utilities Division*

*James L. Blair
Chief, Parks and Field Maintenance*

*Steve P. Ramsey
Chief, Engineering Division*

*James W. Thompson
Chief, Real Estate Division*

*Mike Gonzales
Chief, Environmental Services*

ENVIRONMENTAL SERVICES

The Environmental Services division monitors water quality at 173 sampling stations throughout the San Antonio River basin, including stations at Braunig, Calaveras and Medina Lakes. In 1987, the monitoring efforts were expanded to include biological monitoring of aquatic habitats in sensitive areas.

During the Fiscal Year 1987, an ecological assessment of the upper San Antonio River was initiated. This assessment will document the existing conditions of the aquatic habitat and provide baseline information that would be useful for future projects along the upper river.

The Environmental Services Laboratory provides analytical support for the River Authority's monitoring program and its wastewater treatment facilities. The Laboratory also provides analytical services to the Edwards Underground Water District, Neuces River Authority, National Park Service and the Texas Water Commission. Currently, Environmental Services personnel are conducting a water quality assessment of the Leona River in Uvalde County, for the Nueces River Authority and the City of Uvalde. Wastewater effluent samples are tested in the laboratory for 15 municipalities and 3 commercial activities who are concerned about regular compliance with State and Federal wastewater discharge permits.

The Authority has continued its long-standing practice of pollution complaint and fish-kill investigations within the Basin and assisted the Texas Water Commission, Texas Parks and Wildlife Department and the San Antonio Metropolitan Health District in those investigations. The Authority has also been active in the monitoring of accidents and chemical spills that have upset the aquatic ecology in portions of the drainage basin.



River Ecosystems are evaluated by the examination of fish community structure.

Water quality data gathered by environmental services personnel from fish kill investigations and accidents is made available to other agencies involved in impact assessment.

In coordination with the City of San Antonio, the United States Geological Survey and others, the Authority is participating in the expanded USGS water resource and water quality monitoring program. The expanded system will provide instantaneous information on basin stream flow and surface water quality via satellite transmission.

The Authority also participates in the Texas Natural Resource Information System (TNRIS). Stream monitoring and water quality data generated by SARA field and laboratory personnel are reported to the State. This information is available to the public through TNRIS.

As a long term aid to pollution abatement in the basin, the Authority promotes public awareness of aquatic ecology, water pollution, conservation, and resource protection. Environmental Services personnel make



themselves available for presentations and talks to school groups, fishing clubs, museum groups, and civic organizations. During the Spring Break of 1987, Environmental Services personnel participated with the Soil Conservation Service, the County Extension Service and other agencies in providing over 180 Boy Scouts of the Alamo Area Council, with instructions and counseling on the soil and water conservation, and Environmental Science merit badges.



Aerial view of Calaveras Lake

PARKS AND RECREATION

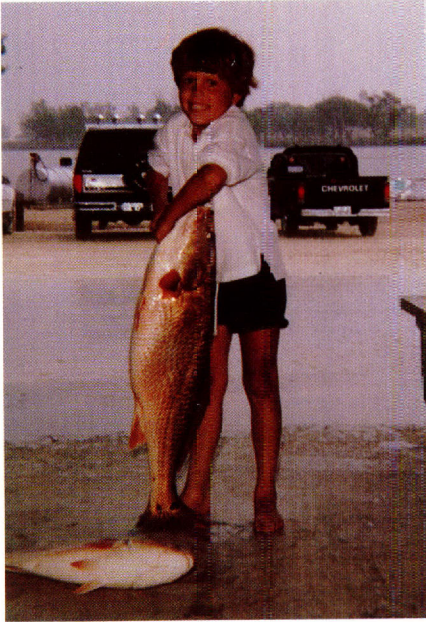
The Authority operates two fee-supported recreational projects that are open to the public. Calaveras Lake Park and Braunig Lake Park. Both lakes, lying only four miles apart and within 15 miles of the urban center of San Antonio, offer a wide variety of water oriented recreational activities to all the people of South Texas. The projects are located on steam-electric power plant cooling reservoirs, and are made possible by long term leases between the City Public Service Board of San Antonio and the Authority.

Calaveras Lake and Braunig Lake Parks are open to the public 24 hours daily. However, during the months of December and January, Braunig Lake is open only during the daylight hours for limited operations. Both parks offer complete concession facilities including bait, tackle, supplies and boat rentals. These lakes provide superb fishing for bass, channel and blue catfish as well as adaptive saltwater fish species.

The Texas Parks and Wildlife Department stocks both lakes



Aerial view of Braunig Lake



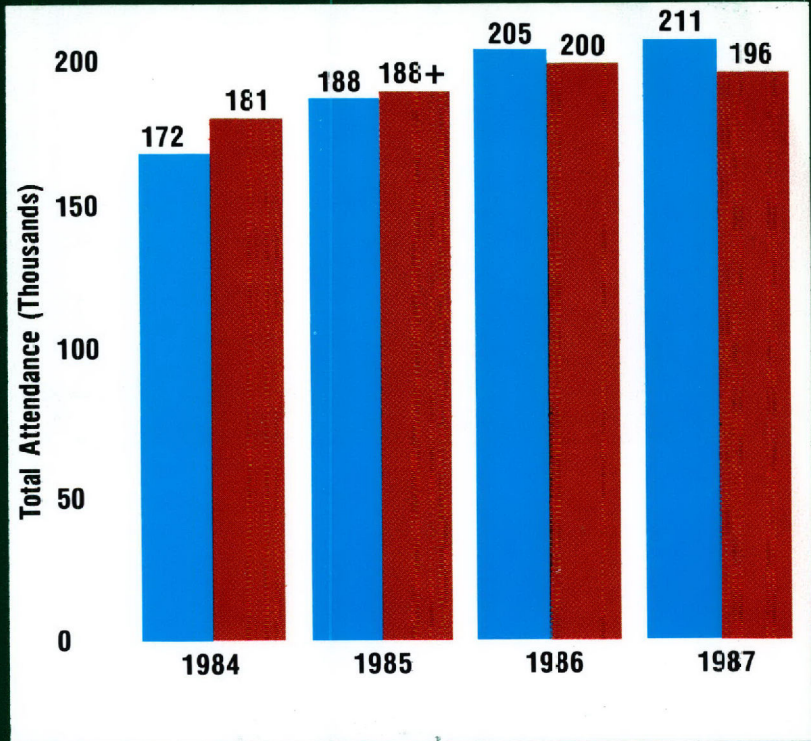
Dusty Burell lands a big Red at Braunig Lake.

with native and adaptive salt-water fish in accordance with a fisheries management program. This program has resulted in the highly successful stocking of the saltwater Red Drum (redfish) which has added an exciting new dimension for the area's freshwater sports fishermen. The current Texas freshwater record Red Drum of 27 pounds came from Braunig Lake. Several other salt-water fish species are now showing promise of further enhancing these fisheries.

Capital improvements completed this year include a Nursery Pond Facility, Shoreline Stabilization, and a Fishing Pier at Calaveras Lake Park as well as additions and renovation of the Concession Building and Shoreline Stabilization at Braunig Lake Park.

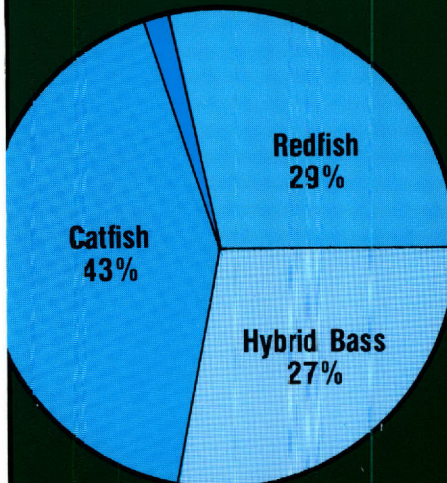
The Nursery Pond project is a cooperative effort with the Texas Parks and Wildlife, the San Antonio Metropolitan League of Bass Clubs and the River Authority. Texas Parks and Wildlife provides technical assistance and bass fry, Metro-Bass Clubs provided \$4,000 towards funding and community support and the Authority operates and maintains the facility for largemouth bass fishing enhancement.

BRAUNIG AND CALAVERAS LAKES TOTAL ATTENDANCE DAILY AND ANNUAL PERMITS



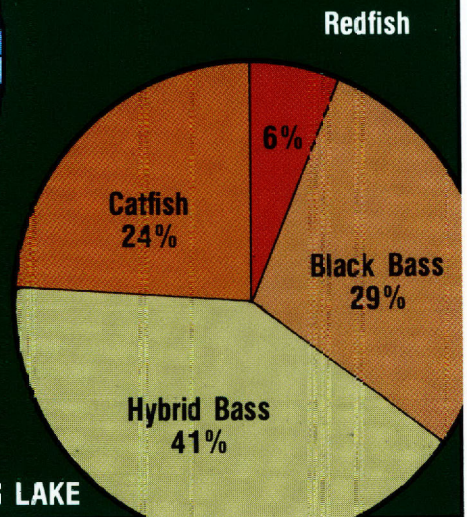
■ Braunig Lake ■ Calaveras Lake

1% Black Bass



BRAUNIG LAKE

FISH COUNT FISCAL YEAR 1987



CALAVERAS LAKE

WASTEWATER TREATMENT

The San Antonio River Authority provides sanitary sewerage service with three sewage treatment plants in the Salatrillo Creek and Martinez Creek watersheds in eastern Bexar County.

The Salatrillo Creek Wastewater System plant serves the sewerage requirements of the cities of Live Oak, Converse and Universal City, and the development area outside these cities which is within the gravity drainage basin of the treatment plant. The treatment capacity of the plant is 3.52 MGD (million gallons daily) and utilizes the carousel-type extended aeration system. The plant has center-pivot irrigation systems for the land application of liquid sludge residual to grow animal feed crops. This environmentally-sound system recycles the by-product of wastewater treatment. In June 1987 the SARA Engineering Department completed the design of 1¾ miles of sewer line to provide overload relief for a segment of the existing outfall line. Construction is scheduled to begin in July 1988 and will be funded by sewer system revenues.

The Martinez Creek Wastewater System plant provides service to residential and commercial development in an unincorporated area between the City of San Antonio and the Salatrillo System area. The plant has treatment capacity of 2.21 MGD and utilizes the center-pivot irrigation system for the disposal of liquid sludges.

The Martinez II Wastewater Treatment Plant is an extension of the Martinez Creek Wastewater system and provides sewerage service to development downstream of the existing Martinez Creek Plant. This plant consists of approximately 4 miles of sewer outfall line, a 1.0 MGD Carrousel-type extended aeration system, and related sludge disposal facilities.



Aerial view of the major components of the Salatrillo Wastewater Treatment Plant near Converse, Texas.



Martinez II Wastewater Treatment Plant

WATER SUPPLY

The proposed Cibolo Reservoir and Goliad Reservoir are water supply projects sponsored by the San Antonio River Authority in the San Antonio River basin. The Cibolo Project is to be located near Stockdale on the Cibolo Creek in Wilson County. Its purpose is to provide additional municipal and industrial water in the San Antonio River basin and serve as a staging reservoir for moving bulk raw water from proposed major reservoirs in the Guadalupe River Basin near Cuero into the San Antonio metropolitan area.

The Goliad Reservoir planned for the San Antonio River near the City of Goliad could serve municipal and industrial needs in the Corpus Christi area and increase the yield of the proposed reservoirs near Cuero by furnishing their portions of the freshwater inflow requirements to the bay and estuarine system.

In 1986 the City of San Antonio, San Antonio River Authority and the Guadalupe-Blanco River Authority completed comprehensive studies to provide updated cost, yield and availability information on the Cuero I and II Reservoirs as well as the Cibolo and Goliad Reservoirs. The studies are available to the general public at local libraries throughout the San Antonio and Guadalupe basins and at the general offices of both Authorities.

Since development and utilization of surface water is integral to solving the long range water needs of southcentral Texas as defined by the San Antonio Regional Water Resource Study, SARA staff has participated with the Implementation Advisory Task Force providing information, guidance and counsel. The Regional Study and Implementation Task Force are sponsored by the City of San Antonio and Edwards Underground Water District.



Newly completed Channel Betterments looking north from Johnson Street.

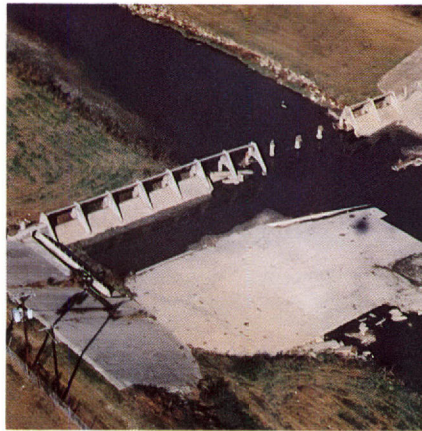
FLOOD CONTROL

During Fiscal Year 1987 the Authority continued its long-standing local sponsorship of the San Antonio Channel Improvement Project (SACIP). The Authority's Engineering Department was actively engaged in planning, design, construction administration, and warranty administration of numerous projects directly or indirectly associated with this long-term flood control project.

Construction of the San Antonio Channel Improvement and Bridge Repair six-phase project, jointly sponsored by the Authority and the City of San Antonio, began in May 1987 and will finish in January 1988. A new concrete U-frame channel is being constructed to replace the

seriously deteriorated and flood-damaged pilot channel of the San Antonio River between Commerce and Houston Streets in downtown San Antonio. New sidewalks, lighting and irrigation systems, and additional plantings are also included. The project was designed to be architecturally compatible and historically faithful to the existing Riverwalk. Additionally, the nearby Houston Street Bridge is being repaired to enhance its structural soundness and to be architecturally compatible with improvements planned for Houston Street by the Tri-Party Project. Sponsored by the Authority, these two project phases are funded by Channel Improvement Revenue Bonds serviced by the Bexar County Flood Control Tax. At the request of the City of San Antonio, the Authority designed and is administering four other project phases as part of the total construction contract. Betterments are being constructed along the river from Durango Boulevard to the new Nueva Street Dam. Sidewalks, handicapped access ramps, stairways, lighting and irrigation systems, and extensive plantings are being installed. These improvements will connect existing amenities constructed along the improved river channel in the King William Historic District with the downtown riverwalk. Additionally, the nearby Arsenal Street Bridge is being repaired to enhance its structural soundness and appearance.

In the 1960's, the Corps of Engineers and the Authority constructed an in-channel dam to replace the historic San Juan Dam, which was bypassed by construction for Unit 1 of the SACIP. The dam failed in 1977, and the Authority plans to replace it. In support of that goal, a preliminary design report for the new dam was completed by the Authority's engineering and architectural consultants during FY87. A public meeting was held in December 1986 with interested citizens and organiza-



Aerial view of failed San Juan Dam (to be replaced).



Reconstruction of the Historic Riverwalk from Commerce Street to Houston Street.

tions to receive their input regarding the dam's design and eventual, but unscheduled construction. This public coordination will continue in FY88 as project plans are prepared by the Authority's consultants. This project will be funded by Channel Improvement Revenue Bonds serviced by the Bexar County Flood Control Tax.

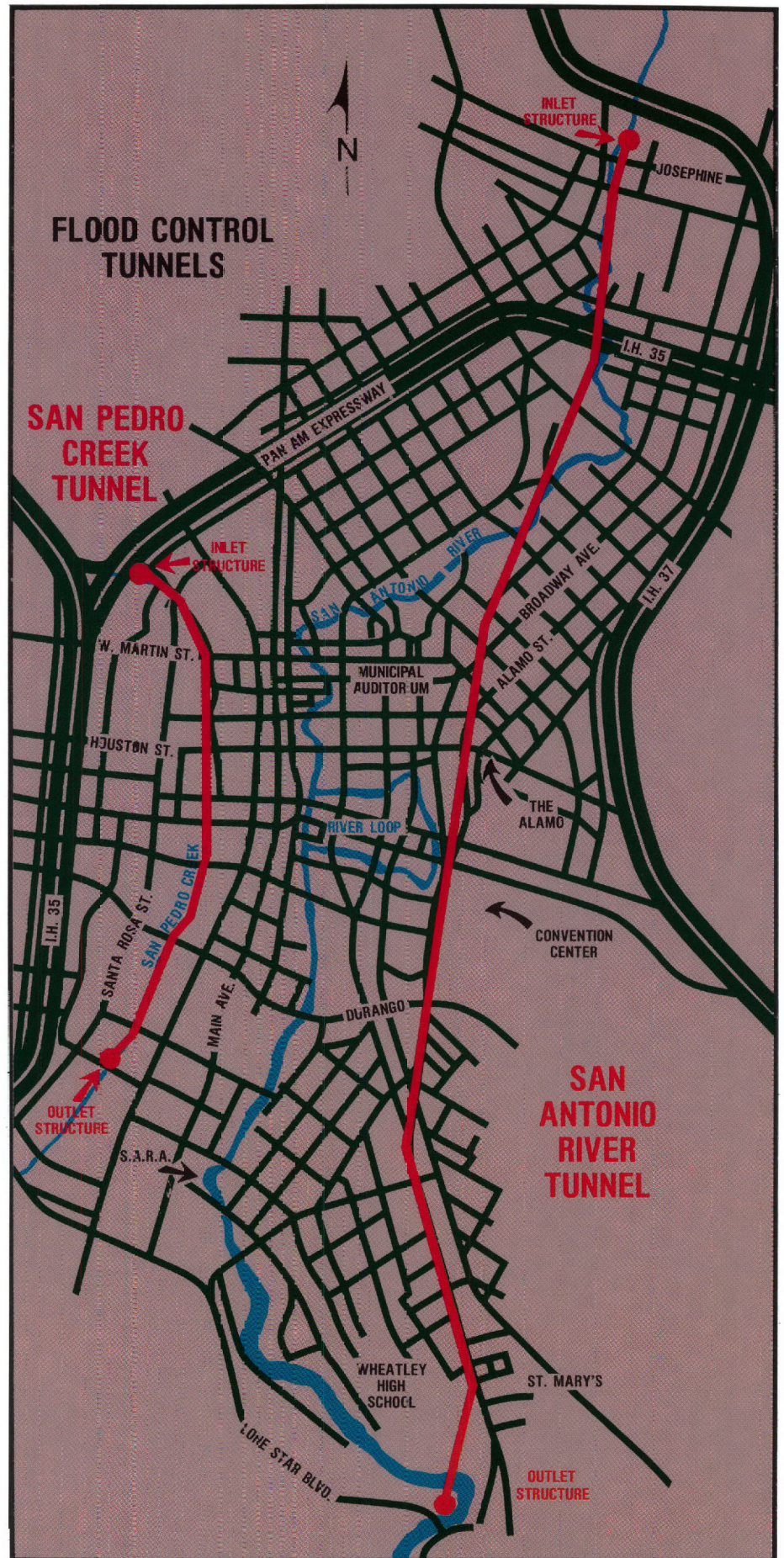
Nearing completion at the close of FY87, the Nueva Street Bridge, Dam and Marina Project consists of a new channel dam, vehicular bridge, and river operations maintenance marina. The new dam and bridge will replace

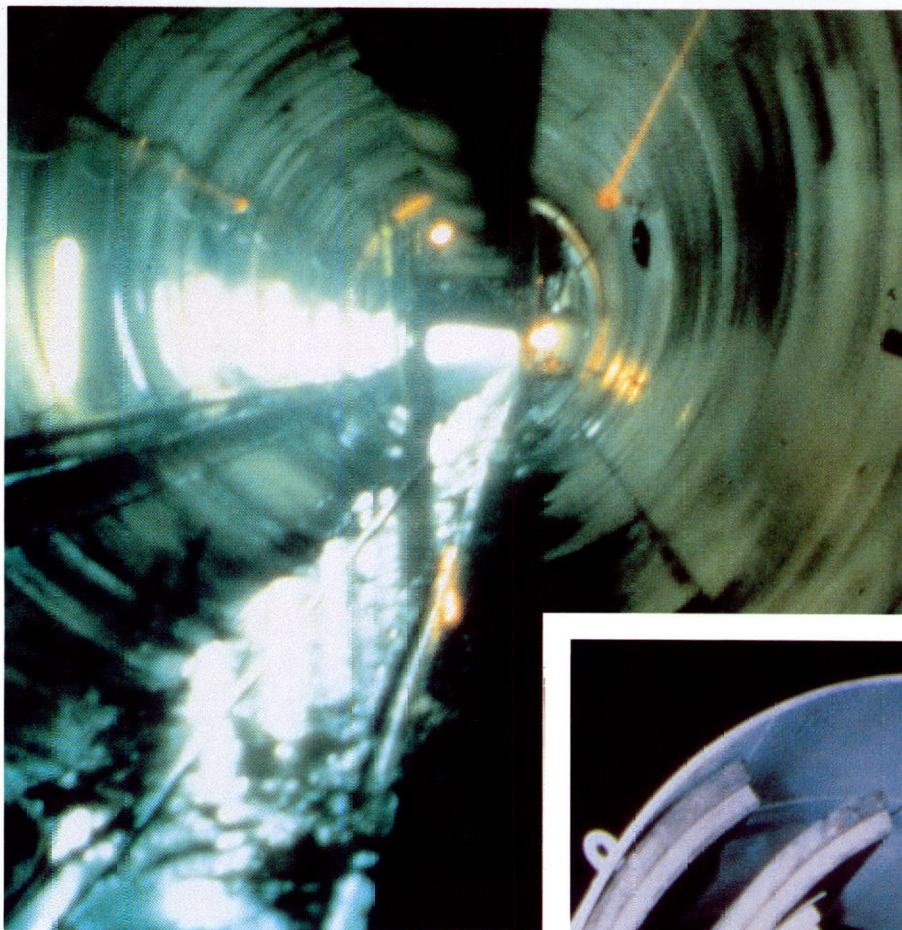
existing obsolete structures. Unlike its predecessor, the new dam will maintain a nearly constant water level in the downtown river loop, from steady-state to flooding flow conditions, while the new bridge with four traffic lanes is larger than the older, now demolished, two-lane bridge. A control tower constructed adjacent to the dam will eventually serve as a flood control operations center for the City of San Antonio. The dam and bridge was funded by Channel Improvement Revenue Bonds serviced by the Bexar County Flood Control Tax. The new

marina will be used as a barge maintenance facility by the City of San Antonio Parks and Recreation Department in support of its river maintenance operations. All expenses associated with the new marina are funded by the City of San Antonio.

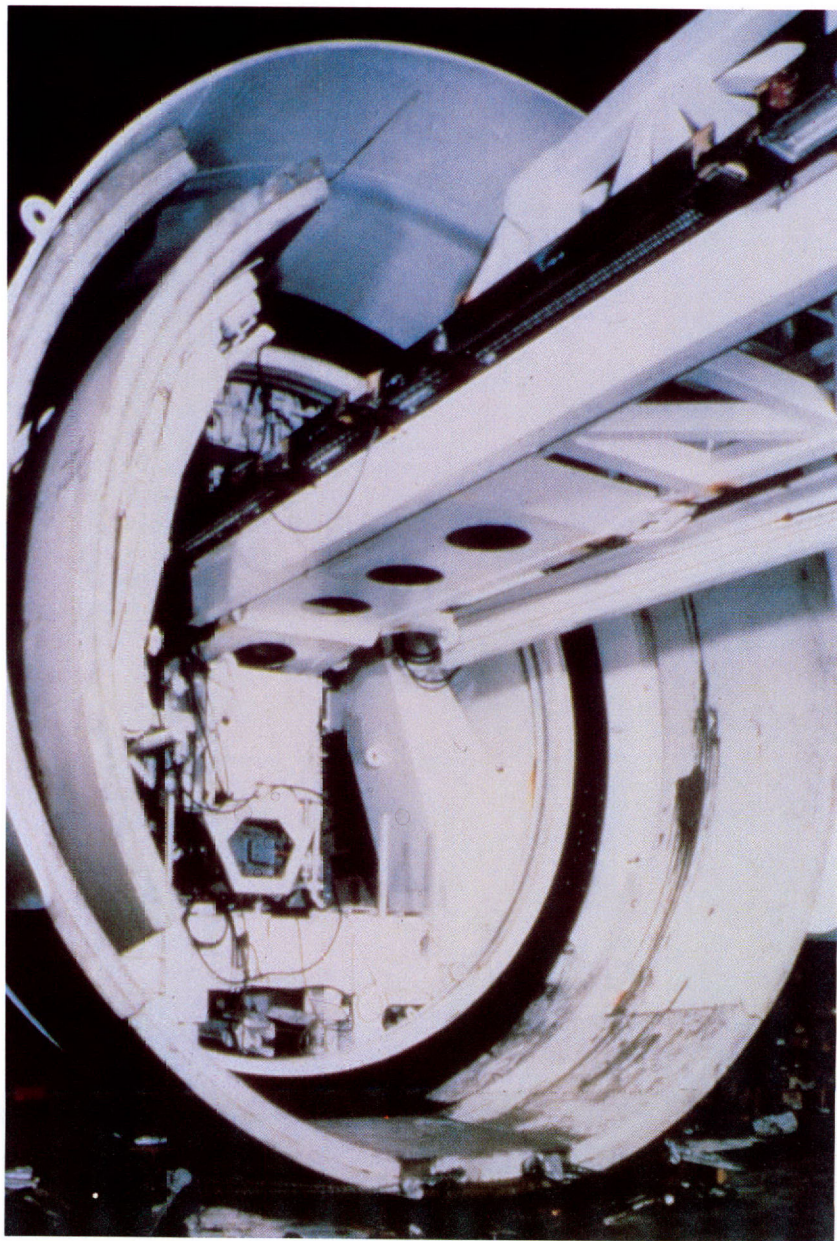
In May 1987, the Corps of Engineers hired an engineering firm to design a flood control channel under North Flores Street from Poplar Street to Myrtle Street in the City of San Antonio. Subsequently, the Authority has begun initial preliminary design and right-of-way activities on San Pedro Creek, Unit 7-3-2. Utility relocations, right-of-way acquisitions, and engineering support will continue in FY88. Project construction is scheduled to begin in early 1988. When completed, the box culvert channel will provide flood protection for the Five Points Area and the VIA Metropolitan Transit Authority's maintenance facility from floodwaters of the San Pedro Creek. Federal appropriations to the Corps will fund project construction. The Authority's local interest cash contribution, right-of-way acquisitions, utility relocations, and engineering activities are funded by Channel Improvement Revenue Bonds serviced by the Bexar County Flood Control Tax.

During FY87, the Authority assisted the Army Corps of Engineers with continued preparations for the construction of the San Antonio River Tunnel Project, which will tunnel from Lone Star Boulevard to U.S. 281. Staff members provided survey and engineering data to the Corps for inclusion in the project plans, made arrangements for relocating utilities conflicting with project construction, and continued to secure all rights-of-way required by the Corps. Additionally, the Engineering Department began the design of the tunnel inlet and outlet structures. Facilities will be constructed that provide for recirculation and aeration of stored tunnel water and which complement their





The San Antonio River Tunnel Project provides additional protection from flooding.
(left) Inside of tunnel
(below) Tunnel machine used to construct the tunnels.





Floodwater retention dam,
Salado Site 7.

adjacent surroundings. With construction starting in June 1987, the tunnel will provide additional flood protection for downtown San Antonio, yet its construction can be accomplished without the major disruptive reconstruction of utilities, bridges, and the existing river channel. Federal appropriations to the Corps will fund the tunnel construction.

The Authority's local interest cash contribution, right-of-way acquisitions, utility relocations, and engineering activities are funded by Channel Improvement Revenue Bonds serviced by the Bexar County Flood Control Tax.

The San Pedro Creek Tunnel Project, which begins at Guadalupe Street and ends at Quincy Street, will provide additional flood protection to downtown San Antonio from San Pedro Creek. During FY87, the Authority coordinated and completed necessary utility relocations and certified all required rights-of-way to the Corps of Engineers. Additionally, the Authority provided survey data and undertook design of the inlet and outlet structures. The San Pedro Creek and the San Antonio River tunnels will be constructed by the Corps through one contract. Tunnel

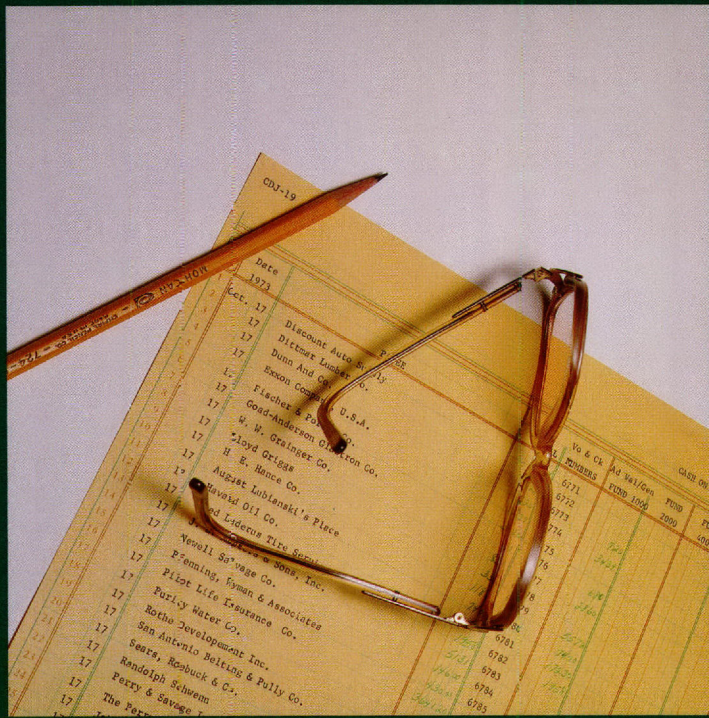
construction began in July 1987. All local interest costs for the San Pedro Creek Tunnel are the funding obligations of the City of San Antonio. Additionally, the Authority is reimbursed for all its administrative and engineering expenses by the City.

In suburban and rural areas throughout the San Antonio River Basin, the Authority's approach to flood control is through development of numerous small flood control dams on tributary streams as opposed to extensive channel improvement measures. The U.S. Soil Conservation Service designs and constructs these floodwater retention dams by agreement with the Authority under the terms of the Small Watershed Protection and Flood Prevention Act, Public Law 566. The Authority and other local sponsors of these projects obtain rights-of-way and maintain the works of improvement upon completion.

Throughout the District, the Authority now operates and maintains forty-one flood control structures constructed under P.L. 566 or its predecessor Pilot act. In Bexar County the number of completed dams is as follows: Salado 12, Calaveras 7 and Martinez 6. In Karnes County: 13 dams on Escondido Creek, 3 dams on Hondo Creek and 2.07 miles of channel on Nichols Creek are complete.



*Financial
Statements*



Ernst & Whinney

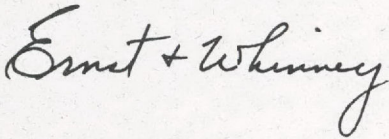
1900 Frost Bank Tower
San Antonio, Texas 78205

512/228-9696

Board of Directors
San Antonio River Authority
San Antonio, Texas

We have examined the general purpose financial statements of the San Antonio River Authority as of and for the year ended June 30, 1987, as listed in the table of contents. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the general purpose financial statements referred to above present fairly the financial position of the San Antonio River Authority at June 30, 1987, and the results of its operations and the changes in financial position of its proprietary fund types for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

A handwritten signature in cursive script that reads "Ernst + Whinney".

San Antonio, Texas
August 28, 1987

COMBINED BALANCE SHEET

All Fund Types and Account Groups — June 30, 1987

ASSETS

Cash — Note B

Investments — Note B

Receivables:

Accounts

Accrued Interest

Taxes

Allowances for Delinquent Taxes (Deduction)

Due from Other Funds — Note C

Prepaid Expenses and Other Assets

Concession Inventory

Investments by Agent to Fund Deferred Compensation Annuities

Restricted Assets — Notes F and G:

Cash — Note B

Cash with Fiscal Agent

Accounts Receivable

Investments

Interfund Loan

Bond Sale Expense — Net of Amortization

Office Furniture, Fixtures, and Equipment

Other Machinery and Equipment

Automobiles and Trucks

Buildings

Improvements Other Than Buildings

Sewage Treatment Facilities

Construction in Progress

Allowances for Depreciation (Deduction)

Land

Soil Conservation Service Projects

Model Cities Project

Flood Control Projects — Note II

Amount Available in Debt Service Funds

Amount to be Provided for Retirement of General Long-Term Debt

	Governmental Fund Types				Proprietary Fund Types	Fiduciary Fund Types	Account Groups		Totals (Memorandum Only)
	General	Special Revenue	Debt Service	Capital Projects	Enterprise — Note K	Agency	General Fixed Assets — Note J	General Long-Term Obligations	
	\$ 258,317	\$ 1,473	\$ 131	\$ 131	\$ 71,558	\$ 54,767			\$ 386,377
	6,732,275	579,300	4,369,377	12,537,200	3,152,471				27,370,623
	90,669	51,989		145,000	169,054	594,600			1,051,312
	172,635	1,289			41,809				215,733
	11,199								11,199
	(11,199)								(11,199)
Total Receivables	263,304	53,278		145,000	210,863	594,600			1,267,045
	559,166	396		6,624	5,106				571,292
	77,783				4,100				81,883
					16,322				16,322
						83,977			83,977
					1,837				1,837
		1,631,522			518,978				2,150,500
					369,901				369,901
					4,155,416				4,155,416
	328,785								328,785
					102,964				102,964
					50,080		\$ 724,338		774,418
					331,236		609,562		940,798
					233,942		301,475		535,417
					548,474		1,680,857		2,229,331
					1,028,128		70,041		1,098,169
					17,202,180				17,202,180
					517,454				517,454
					(2,303,728)				(2,303,782)
					1,457,836		98,898		1,556,734
							12,852,557		12,852,557
							9,109,195		9,109,195
							86,698,475		86,698,475
								\$ 4,783,092	4,783,092
								28,696,908	28,696,908
Total Assets	\$8,219,630	\$634,447	\$6,001,030	\$12,688,955	\$27,675,118	\$733,344	\$112,145,398	\$33,480,000	\$201,577,922

COMBINED BALANCE SHEET

All Fund Types and Account Groups — June 30, 1987 — continued

LIABILITIES AND FUND EQUITY

Liabilities:

Accounts Payable

Performance Deposit

Amounts Held in Custody for Other Taxing Units

Payroll Deductions

Sales Tax Payable

Employees' Deferred Compensation

Due to Other Funds — Note C

Other Accrued Liabilities

Deferred Income — Connection Fees

Liabilities of Restricted Assets:

Accounts Payable

Accrued Bond Interest Payable

Bonds Payable Within One Year

Matured Interest Coupons Payable

Interfund Loan

Bonds Payable After One Year — Notes E, F, G, and L

Fund Equity:

Contributed Capital

Investment in Fixed Assets:

From Revenues

From Contributions

Retained Earnings

Fund Balances:

Reserved for Flood Control Administration — Note I

Reserved for Encumbrances

Reserved for Interfund Loan

Unreserved:

Designated by Management

Designated for Self Insurance

Designated for Debt Service

Undesignated

Total Liabilities a

See notes to financial statements.

	Governmental Fund Types				Proprietary Fund Types	Fiduciary Fund Types	Account Groups		Totals (Memorandum Only)
	General	Special Revenue	Debt Service	Capital Projects	Enterprise — Note K	Agency	General Fixed Assets — Note J	General Long-Term Obligations	
	\$ 217,603	\$ 1,485		\$ 787,048	\$ 224,884	\$587,615			\$ 1,818,635
	1,500								1,500
						244			244
	1,995				90				2,085
					6,710				6,710
						81,922			81,922
	3,433	39,166		46,041	419,089	63,563			571,292
	10,334				2,000				12,334
					249,480				249,480
					78,771				78,771
					288,879				288,879
					235,000				235,000
			\$1,217,938						1,217,938
					328,785				328,785
					7,305,000			\$33,480,000	40,785,000
Total Liabilities	234,865	40,651	1,217,938	833,089	9,138,688	733,344		33,480,000	45,678,575
					8,441,193				8,441,193
							\$ 33,162,327		33,162,327
							78,983,071		78,983,071
					10,095,237				10,095,237
	79,399								79,399
	1,356,415			3,720,678					5,077,093
	328,785								328,785
	14,843								14,843
	300,000								300,000
			4,783,092						4,783,092
	5,905,323	593,796		8,135,188					14,634,307
Total Fund Equity	7,984,765	593,796	4,783,092	11,855,866	18,536,430		112,145,398	\$33,480,000	155,899,347
Grand Fund Equity	\$8,219,630	\$634,447	\$6,001,030	\$12,688,955	\$27,675,118	\$733,344	\$112,145,398	\$33,480,000	\$201,577,922

COMBINED STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES

All Governmental Fund Types — Year Ended June 30, 1987

	Governmental Fund Types				Totals (Memorandum Only)
	General	Special Revenue	Debt Service	Capital Projects	
Revenues and other Financing Sources:					
Revenues:					
Intergovernmental Revenues	\$ 556,982			\$1,141,006	\$ 1,697,988
Ad Valorem Taxes	525				525
Bexar County Flood Control Tax		\$2,928,783			2,928,783
Interest Income	1,261,802	35,216			1,297,018
Sale of Assets	9,262				9,262
Laboratory Sampling	50,899				50,899
Vehicle Usage	40,129	4,048			44,177
Materials Testing	10,516				10,516
Computer Usage	100,497				100,497
Sale of Hay and Miscellaneous	37,157			124,786	161,943
Administrative Fee for Pollution Bonds	7,889				7,889
Total Revenues	2,075,658	2,968,047		1,265,792	6,309,497
Other Financing Sources:					
Proceeds from Sale of Bonds				6,060,000	6,060,000
Proceeds from Sale of Property				1,850	1,850
Interfund Transfer			\$4,441,251	6,317	4,447,568
Total Revenues and Other Financing Sources	2,075,658	2,968,047	4,441,251	7,333,959	16,818,915
Expenditures and Other Financing Uses:					
Expenditures:					
Current:					
Regular Salaries	1,322,922	43,007			1,365,929
Part-Time Salaries	24,789				24,789
Directors Compensation	12,600				12,600
Expense Allowance	7,800				7,800
Retirement — Note D	109,310	3,385			112,695
Employer FICA, Unemployment, and Insurance	164,897	8,325			173,222
Educational Allowance	3,204				3,204
Office Supplies	11,620				11,620
Operating and Maintenance Supplies	108,413	13,417			121,830
Operating and Maintenance Supplies — Vehicles	33,867				33,867
Photographic Supplies	3,099				3,099
Commissions and Discounts on Taxes	80				80
Professional Services	251,742				251,742
Communications	26,379	366			26,745
Janitorial Services	10,399				10,399
Travel	32,255				32,255

COMBINED STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES

All Governmental Fund Types — Year Ended June 30, 1987 — continued

	Governmental Fund Types				Totals (Memorandum Only)
	General	Special Revenue	Debt Service	Capital Projects	
Expenditures and Other Financing Uses — Continued:					
Expenditures — Continued:					
Current — Continued:					
Vehicle Usage	\$ 12,897	\$ 4,714			\$ 17,611
Advertising	3,366				3,366
Binding and Printing	11,322				11,322
Dues and Subscriptions	20,160				20,160
General Insurance	39,845				39,845
Utilities	28,642	546			29,188
Repairs and Maintenance Contracts	39,179				39,179
Rentals	52,978				52,978
Miscellaneous	28,520				28,520
Allocation of Administrative Expenses	(1,367,657)	28,637			(1,339,020)
Total Current Expenditures	992,628	102,397			1,095,025
Capital Outlay:					
Buildings	1,273,931				1,273,931
Land				\$ 110,509	110,509
Improvements Other Than Buildings				4,151,466	4,151,466
Other Machinery and Equipment	183,004	1,036			184,040
Total Capital Outlay	1,456,935	1,036		4,261,975	5,719,946
Debt Service:					
Bond Principal			\$ 405,000		405,000
Interest on Bonds			2,373,021		2,373,021
Total Expenditures	2,449,563	103,433	2,778,021	4,261,975	9,592,992
Other Financing Uses:					
Miscellaneous	3,000				3,000
Transfers to Interest and Redemption Fund		4,441,251			4,441,251
Transfers to Capital Projects Fund		6,317			6,317
Total Expenditures and Other Financing Uses	2,452,563	4,551,001	2,778,021	4,261,975	14,043,560
Excess of Revenues and Other Financing Sources Over (Under) Expenditures and Other Financing Uses	(376,905)	(1,582,954)	1,663,230	3,071,984	2,775,355
Fund Balances, July 1, 1986	8,361,670	2,176,750	3,119,862	8,783,882	22,442,164
Fund Balances, June 30, 1987	\$7,984,765	\$ 593,796	\$4,783,092	\$11,855,866	\$ 25,217,519

See notes to financial statements.

COMBINED STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES - BUDGET AND ACTUAL

General and Special Revenue Fund Types — Year Ended June 30, 1987

	General Fund			Special Revenue Funds		
	Budget	Actual	Variance- Favorable (Unfavorable)	Budget	Actual	Variance- Favorable (Unfavorable)
Revenues and Other Financing Sources:						
Revenues:						
Ad Valorem Taxes	\$ 600	\$ 525	\$ (75)			
Bexar County Flood Control Tax				\$3,086,691	\$2,928,783	\$ (157,908)
Interest Income	1,246,860	1,261,802	14,942	36,000	35,216	(784)
Intergovernmental Revenues	557,000	556,982	(18)			
Sale of Assets	5,000	9,262	4,262			
Laboratory Sampling	20,975	50,899	29,924			
Vehicle Usage	45,000	40,129	(4,871)	1,700	4,048	2,348
Materials Testing	24,000	10,516	(13,484)			
Computer Usage	35,000	100,497	65,497			
Sale of Hay and Miscellaneous	19,000	37,157	18,157			
Administrative Fee for Pollution Bonds	730	7,889	7,159			
Total Revenues and Other Financing Sources	1,954,165	2,075,658	121,493	3,124,391	2,968,047	(156,344)
Expenditures and Other Financing Uses:						
Expenditures:						
Current:						
Regular Salaries	1,420,450	1,322,922	97,528	45,820	43,007	2,813
Part-Time Salaries	49,600	24,789	24,811			
Directors Compensation	16,800	12,600	4,200			
Expense Allowance	7,800	7,800				
Retirement — Note D	131,500	109,310	22,190	3,670	3,385	285
Employer FICA, Unemployment, and Insurance	220,703	164,897	55,806	8,989	8,325	664
Educational Allowance	6,000	3,204	2,796			
Office Supplies	21,015	11,620	9,395			
Operating and Maintenance Supplies	142,160	108,413	33,747	13,668	13,417	251
Operating and Maintenance Supplies — Vehicles	34,992	33,867	1,125			
Photographic Supplies	3,900	3,099	801			
Commissions and Discounts on Taxes	500	80	420			
Professional Services	348,905	251,742	97,163	500		500
Communications	26,400	26,379	21	400	366	34
Janitorial Services	11,500	10,399	1,101			

COMBINED STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES - BUDGET AND ACTUAL

General and Special Revenue Fund Types — Year Ended June 30, 1987 — *Continued*

	General Fund			Special Revenue Funds		
	Budget	Actual	Variance- Favorable (Unfavorable)	Budget	Actual	Variance- Favorable (Unfavorable)
Expenditures and Other Financing Uses — Continued:						
Expenditures — Continued:						
Current — Continued:						
Travel	\$ 45,800	\$ 32,255	\$ 13,545			
Vehicle Usage	20,000	12,897	7,103	\$ 8,400	\$ 4,714	\$ 3,686
Advertising	3,200	3,366	(166)			
Binding and Printing	13,635	11,322	2,313			
Dues and Subscriptions	23,331	20,160	3,171			
General Insurance	45,800	39,845	5,955			
Self Insurance	300,000		300,000			
Utilities	39,900	28,642	11,258	700	546	154
Repairs and Maintenance Contracts	74,764	39,179	35,585			
Rentals	61,725	52,978	8,747	1,500		1,500
Miscellaneous	65,545	28,520	37,025			
Allocation of Administrative Expenses	(1,205,800)	(1,367,657)	161,857	28,637	28,637	
Total Current Expenditures	1,930,125	992,628	937,497	112,284	102,397	9,887
Capital Outlay:						
Buildings	2,629,026	1,273,931	1,355,095	8,000		8,000
Other Machinery and Equipment	242,013	183,004	59,009	1,025	1,036	(11)
Total Capital Outlay	2,871,039	1,456,935	1,414,104	9,025	1,036	7,989
Total Expenditures	4,801,164	2,449,563	2,351,601	121,309	103,433	17,876
Other Financing Uses:						
Miscellaneous	3,000	3,000				
Transfers to Interest and Redemption Fund				2,778,022	4,441,251	(1,663,229)
Transfers to Capital Projects Funds					6,317	(6,317)
Total Expenditures and Other Financing Uses	4,804,164	2,452,563	2,351,601	2,899,331	4,551,001	(1,651,670)
Excess of Revenues and Other Financing Sources Over Expenditures and Other Financing Uses						
	(2,849,999)	(376,905)	2,473,094	225,060	(1,582,954)	(1,808,014)
Fund Balances, July 1, 1986	8,361,670	8,361,670		2,176,750	2,176,750	
Fund Balances, June 30, 1987	\$5,511,671	\$7,984,765	\$ 2,473,094	\$2,401,810	\$ 593,796	\$ (1,808,014)

See notes to financial statements.

COMBINED STATEMENT OF CHANGES IN RESERVES, CONTRIBUTED CAPITAL, AND RETAINED EARNINGS

All Proprietary Fund Types — Year Ended June 30, 1987

	Parks and Recreation Fund		Sewage Treatment Funds		Pollution Control Contract Fund	Combined Totals	
	Retained Earnings	Contributed Capital	Retained Earnings	Contributed Capital	Retained Earnings	Retained Earnings	Contributed Capital
Balances at June 30, 1986	\$1,878,356	\$ 114,963	\$7,232,432	\$ 8,326,230	\$ —	\$ 9,110,788	\$ 8,441,193
Additions (Deductions):							
Net Income (Loss)	(70,656)		1,055,105			984,449	
Balance at June 30, 1987	\$1,807,700	\$ 114,963	\$8,287,537	\$ 8,326,230	\$ —	\$10,095,237	\$ 8,441,193

See notes to financial statements.

COMBINED STATEMENT OF REVENUES AND EXPENSES

All Proprietary Fund Types — Year Ended June 30, 1987

	Enterprise Funds			Combined Total
	Parks and Recreation Fund	Sewage Treatment Funds	Pollution Control Contract Fund	
Operating Revenues:				
Concession Sales	\$ 521,534			\$ 521,354
Less Cost of Goods Sold	301,041			301,041
Gross Profit on Sales	220,313			220,313
Entrance Fees	611,496			611,496
Annual Permits	86,315			86,315
Connection Fees		\$ 930,875		930,875
Sewer Service Charges		2,007,635		2,007,635
Administrative Fees			\$ 730	730
Sale of Hay and Miscellaneous	12,933	25,107		38,040
Total Operating Revenues	931,057	2,963,617	730	3,895,404
Operating Expenses:				
Regular Salaries	437,866	360,508		798,374
Part-Time Salaries	1,878			1,878
Retirement — Note D	31,343	19,435		50,778
Employer FICA, Unemployment, and Insurance	85,842	72,146		157,988
Office Supplies		2,303		2,303
Operating and Maintenance Supplies	36,077	98,079		134,156
Operating and Maintenance — Vehicles	4,858	20,896		25,754
Photographic Supplies	813	466		1,279
Communications	962	4,300		5,262
Professional Services	166	27,687		27,853
Laboratory Services	192	13,910		14,102
Travel	134	2,135		2,269
Vehicle Usage	6,685	416		7,101
Binding and Printing	1,586	179		1,765
Dues, Subscriptions, and Advertising	45	545		590
General Insurance	68,161	27,008		95,169
Utilities	15,037	193,237		208,274
Repair and Maintenance Contracts	660	449		1,109
Rentals	20	583		603
Allocation of Administrative Expenses	269,664	257,877	730	528,271
Depreciation	81,054	594,447		675,501
Miscellaneous	687	4,186		4,873
Total Operating Expenses	\$1,043,730	\$1,700,792	\$ 730	\$2,745,252
Operating Income (Loss)	(112,673)	1,262,825		1,150,152

COMBINED STATEMENT OF REVENUES AND EXPENSES

All Proprietary Fund Types — Year Ended June 30, 1987 — continued

	Enterprise Funds			Combined Total
	Parks and Recreation Fund	Sewage Treatment Funds	Pollution Control Contract Fund	
Nonoperating Revenues:				
Interest Income	\$ 42,489	409,437		\$ 451,926
Intergovernmental Revenues:				
Interest Requirements on Bond Issues			\$ 19,710	19,710
Fiscal Agent Fee Requirement			356	356
Loss on Disposal of Assets	(472)	(1,738)		(2,210)
Total Nonoperating Revenues	42,017	407,699	20,066	469,782
Nonoperating Expenses:				
Interest on Bonds		567,956	19,710	587,666
Other Interest Expense		40,513		40,513
Amortization of Bond Sale Expenses		6,950		6,950
Fiscal Agent Fees			356	356
Total Nonoperating Expenses		615,419	20,066	635,485
NET INCOME (LOSS)	\$ (70,656)	\$ 1,055,105	\$ —	\$ 984,449

See notes to financial statements.

COMBINED STATEMENT OF CHANGES IN FINANCIAL POSITION

All Proprietary Fund Types — Year Ended June 30, 1987

	Enterprise Funds		
	Parks and Recreation Fund	Sewage Treatment Funds	Combined Total
Sources of Funds:			
Net Income (Loss)	\$ (70,656)	\$ 1,055,105	\$ 984,449
Add Expenses Not Requiring Working Capital:			
Depreciation Expense	81,054	594,447	675,501
Amortization Expense		6,950	6,950
Funds Provided From Operations	10,398	1,656,502	1,666,900
Decrease in Restricted Assets		199,894	199,894
Net Book Value of Fixed Assets Disposed of	2,631	1,739	4,370
Increase in Liabilities of Restricted Assets		106,381	106,381
Total Sources of Funds	13,029	1,964,516	1,977,545
Applications of Funds:			
Reduction in Long-Term Debt		235,000	235,000
Repayment of Interfund Loan		109,595	109,595
Decrease in Deferred Income		400	400
Furniture and Fixtures	5,771	4,525	10,296
Other Machinery and Equipment	15,103	22,825	37,928
Automobiles and Trucks	6,697	1,000	7,697
Buildings	36,926	1,989	38,915
Improvements Other Than Buildings	270,123		270,123
Sewage Treatment Facilities		5,712,747	5,712,747
Construction in Progress	250,755	(4,856,147)	(4,605,392)
Land		1,207	1,207
Total Funds Applied	585,375	1,233,141	1,818,516
Increase (Decrease) in Working Capital	\$ (572,346)	\$ 731,375	\$ 159,029
Elements of Increase (Decrease) in Working Capital:			
Current Assets:			
Cash	\$ (950)	\$ 28,685	\$ 27,735
Investments	(417,500)	449,971	32,471
Accounts Receivable		(3,554)	(3,554)
Interest Receivable	2,039	17,870	19,909
Due From Other Funds of the Authority	1,864	2,658	4,522
Prepaid Expenses and Other Current Assets	500		500
Inventory	3,005		3,005
Total Increase (Decrease) in Current Assets	(411,042)	495,630	84,588
Current Liabilities:			
Accounts Payable	62,067	(342,711)	(280,644)
Payroll Deductions	(3,722)	(2,384)	(6,106)
Sales Tax Payable	(1,525)		(1,525)
Due to Other Funds	104,484	109,350	213,834
Total Increase (Decrease) in Current Liabilities	161,304	(235,745)	(74,441)
Increase (Decrease) in Working Capital	\$ (572,346)	\$ 731,375	\$ 159,029

See notes to financial statements.

NOTES TO FINANCIAL STATEMENTS — ALL FUND TYPES AND ACCOUNT GROUPS

June 30, 1987

NOTE A — REPORTING ENTITY AND SIGNIFICANT ACCOUNTING POLICIES

Financial Reporting Entity: For financial reporting purposes, the San Antonio River Authority includes all funds and account groups that are controlled by, or dependent on, the Authority. Control by or dependence on the Authority was determined on the basis of budget adoption, taxing authority, outstanding debt secured by revenues or general obligations of the Authority, obligation of the Authority to finance any deficits that may occur, or receipt of significant subsidies from the Authority.

Based on the foregoing criteria, the San Antonio River Industrial Development Authority (the Corporation) is not part of the San Antonio River Authority; therefore, it is excluded from the accompanying financial statements. The Corporation was formulated under the provisions of the Development Corporation Act of 1979, for the purpose of promoting industrial growth within the four county area serviced by the San Antonio River Authority. Eligible applicants are furnished financial assistance through the sale of tax-free industrial development bonds. The Authority has no contingent liability for these bonds. Assets and revenue of the Corporation may ultimately be transferred to the Authority through passage of a resolution by the directors of the Corporation.

Basis of Presentation: The financial statements of the Authority are prepared in conformity with generally accepted accounting principles for local governmental units. The financial transactions of the Authority are recorded in individual funds and account groups. The various funds and account groups are reported by type in the financial statements. Amounts in the "Totals (Memorandum Only)" columns in the combined financial statements represent a summation of the combined financial statement line items of the fund types and account groups and are presented only for analytical purposes. Consequently, amounts shown in the "Totals (Memorandum Only)" columns are not comparable to a consolidation and do not represent the total resources available or total revenues and expenditures/expenses of the Authority.

The Authority uses the following fund categories, fund types, and account groups:

Governmental Fund Types:

General Fund — To account for all financial resources except those required to be accounted for in another fund. The General Fund is the Authority's operating fund.

Special Revenue Funds — To account for the proceeds of specific revenue sources (other than fiduciary or major capital projects) that are legally restricted to expenditures for a specific purpose. Special revenue funds include the Improvement Bonds Revenue Fund and the Berg's Mill and Salado Creek Maintenance Fund for internal report purposes.

Capital Project Funds — To account for financial resources to be used for the acquisition or construction of major capital facilities (other than those financed by proprietary and fiduciary funds).

Debt Service Funds — To account for the accumulation of resources for, and the payment of, general long-term debt principal and interest.

Proprietary Fund Types:

Enterprise Funds — To account for operations (a) that are financed and operated in a manner similar to private business enterprises — where the intent of the governing body is that the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges; or (b) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability, or other purposes.

Fiduciary Fund Types:

Agency Funds — To account for assets held by the Authority as an agent for individuals, private organizations, other governments, and/or other funds.

Account Groups:

General Fixed Assets Account Group — To account for all fixed assets of the Authority, except those accounted for in the proprietary funds.

General Long-Term Obligations Account Group — To account for all long-term obligations of the Authority, except those required to be accounted for in proprietary funds.

Basis of Accounting: The modified accrual basis of accounting has been utilized in all funds of the Authority, with the exception of the enterprise funds. Under the modified accrual basis, revenues are recognized in the accounting period in which they become available and measurable, and expenditures are recognized in the accounting period in which the fund liability is incurred, if measurable, with the following exception that is in conformity with generally accepted accounting principles: costs for accumulated unpaid vacation and sick leave are reported as expenditures in the period due rather than in the period earned by employees. Interest due July 1, 1987, on general bonded debt has been accrued in the Debt Service Fund because resources have been provided during the fiscal year for payment of such expenditures. Funds to pay this accrued interest plus bond principal maturing July 1, 1987 are on deposit with the fiscal agent at June 30, 1987.

The accrual basis of accounting has been utilized in the enterprise funds. Under the accrual basis, revenues are recognized in the accounting period in which they are earned and become measurable, and expenses are recognized in the period incurred, if measurable.

Budgeting: By-laws of the Authority require the Board of Directors to adopt an annual budget in which is estimated the amount of funds available from all sources and to allocate the amount of funds which may be expended during the forthcoming fiscal year. Such allocation vests in the manager of the Authority the full authority to expend funds but not to exceed the amounts so allocated. The annual budgetary data for governmental fund types included in the financial statements represents the original budget and amendments as adopted by the Board of Directors and is on the same modified accrual basis used to reflect revenues and expenditures of the General Fund and Special Revenue Funds.

Encumbrance accounting, under which purchase orders, contracts, and other commitments for expenditures are recorded in order to reserve that portion of the applicable appropriation, is used for formal budgetary control.

Unexpended appropriations lapse at the end of the fiscal year. Encumbrances outstanding at year end are reported as reservations of fund balances of the governmental fund types. These outstanding encumbrances serve as authorization for expenditures in the following fiscal year.

Investments: Cash available for investment is invested in certificates of deposit purchased from local banking institutions. See Note B.

Fixed Assets and Depreciation: All fixed assets purchased or constructed for general purposes are recorded as expenditures in the fund that finances the asset acquisition. Such assets are capitalized at cost in the General Fixed Assets group of accounts. Gifts or contributions are recorded in General Fixed Assets at fair market value at the time received. It is the Authority's policy to report public domain or infrastructure fixed assets which include dams, river and creek channel improvements, bridges, curbs, gutters, and similar assets that are immovable. In some cases, the fixed assets have been constructed or installed on sites owned by other governments, such as streets and rights-of-way of the City of San Antonio. Records of all fixed assets, including these infrastructure fixed assets, are maintained for both management and accountability purposes.

All fixed assets of the enterprise funds are recorded in those funds at cost or at fair market value in the case of contributed or donated assets. Depreciation is provided using the straight-line method over the estimated useful lives of the assets of the enterprise funds. The Authority's policy is to expense interest on proprietary fund construction projects as incurred due to the immateriality of amounts involved.

Amortization of Bond Sale Expenses: Bond sale expenses related to enterprise funds are amortized using the straight-line method over the life of the bonds.

Ad Valorem Tax: In 1961, an ad valorem tax of two cents per one hundred dollars assessed valuation was approved by District voters and was collected annually at its maximum rate by the tax collector of each county. Effective July 1, 1977, the tax was reduced to one and one-half cents per one hundred dollars, and effective July 1, 1979, the tax was further reduced to one cent per one hundred dollars valuation by action of the Authority. Use of this tax income is limited to general administration, maintenance of completed projects and updating of the Authority's master plan for water resource development. This tax revenue may not be pledged to debt service on any bonds nor may it be used to construct works of improvement. No tax was levied for fiscal year 1981 and subsequent years, and it is anticipated that no tax will be levied in future years; however, the authority to levy the tax is being retained for usage if required.

Allocation of Administrative Expenses: An allocation plan is utilized to charge the various operating divisions for administrative costs recorded in the General Fund. The allocation is recorded as a negative expenditure in the General Fund and as expenditures/expenses in each fund receiving an allocation.

Deferred Compensation Trust Fund: On September 2, 1975, the Authority established a deferred compensation plan for employees. This plan allows employees to participate on a voluntary basis and is funded entirely by employee contributions based on individual contracts. Contributions to the plan are handled on a payroll deduction basis and are remitted to a trustee monthly. The fund is reported as an agency fund.

NOTE B — CASH AND INVESTMENTS

The Authority's deposits were entirely covered by federal deposit insurance and collateral held in safekeeping by the Authority's general depository bank for the accounts of the Authority throughout the fiscal year, except at year end, when deposits were 96.3% covered. Coverage was adequate again shortly after year end.

Statutes and bond covenants require the Authority to invest in time deposits or certificates of deposit secured by obligations of the type hereinafter described, or be invested in direct obligations of the United States of America, obligations guaranteed or insured by the United States of America, which, in the opinion of the Attorney General of the United States, are backed by its full faith and credit or represents its general obligations, or invested in obligations of instrumentalities of the United States of America, including, but not limited to, evidences of indebtedness issued, insured, or guaranteed by such governmental agencies as the Federal Land Banks, Federal Intermediate Credit Banks, Banks for Cooperatives, Federal Home Loan Banks, Government National Mortgage Association, United States Postal Service, Farmers Home Administration, Federal Home Loan Mortgage Association, Small Business Administration, Federal Housing Association, or Participation Certificates in the Federal Assets Financing Trust.

The Authority's investments at year end were all in certificates of deposit and were held by the Authority's general depositories in the name of the Authority.

NOTE C — INTERFUND RECEIVABLES AND PAYABLES

The interfund receivables and payables consist primarily of items arising from the allocation of administrative costs for the year. Significant interfund amounts due to the General Fund from other funds for this allocation consist of \$172,033 due from Martinez/Salatrillo Sewage System Fund, \$55,832 due from the SACIP Phase III Fund, and \$207,234 due from the Parks and Recreation Fund.

NOTE D — PENSION PLAN

The Authority has a defined contribution (money purchase) pension plan which was adopted in 1979. To be eligible for the plan, a participant must be a full-time employee with one year's service. The plan allows for early and late retirement. Effective January 1, 1987, voluntary employee contributions (made after December 31, 1986) may no longer be withdrawn without penalty.

The River Authority's policy is to fund all pension plan costs as they accrue. The total retirement plan expense was \$163,473 and \$80,378 for the fiscal years 1987 and 1986, respectively.

NOTE E — SAN ANTONIO CHANNEL IMPROVEMENT PROJECT (SACIP) FUNDS

A 1955 contract and amendments with Bexar County, Texas, have provided to the Authority all proceeds from a flood control tax levied by the County. The last amendment to the contract, referred to as The 1979 Amendatory Contract, provides that the County will set a tax rate which, at 90% current collections, will provide revenues sufficient to pay each year's requirements for principal and interest of Authority bonds which are payable from the proceeds of the County flood control tax. The tax is levied against all taxable property in Bexar County, and the tax rate set by the County may not exceed 15¢ per \$100 assessed valuation.

SACIP Improvement Bonds Series 1957 through Series 1977 were issued pledging revenues of the Bexar County flood control tax for retirement of the bonds. Effective January 1, 1980, all outstanding SACIP bonds in the amount of \$17,135,000 were defeased by issuance of \$13,045,000 in San Antonio River Authority Channel Improvement Refunding Revenue Bonds, Series 1980. The defeased bonds have a final maturity date of July 1, 2013. Proceeds from the refunding bonds were placed in escrow for the payment of all future principal and interest of the refunded bonds. The refunding bonds provided for issuance of additional bonds which are payable from revenues derived from the contract with Bexar County, particularly the 1976 and 1979 amendments.

In order to comply with the contract and bond resolutions authorizing the Refunding Bonds and additional bonds issued thereunder, the River Authority has established various funds, as follows:

Capital Projects Funds: These funds were created for projects designated in the 1955 contract and amendments. They received proceeds from the various Channel Improvement Bonds. Individual funds are as follows:

Original SACIP — Channel improvements of the San Antonio River and Alazan, Apache, San Pedro, and Martinez Creeks.

SACIP Phase II — Improvements to Berg's Mill section of the San Antonio River and development of the Salado Creek Watershed and Flood Prevention Project.

SACIP Phase III — Various additional flood control projects in Bexar County.

Special Revenue Fund — Improvement Bonds Revenue Fund: This fund is the "Gross Revenue Fund" designated by the bond resolutions. It receives all revenues from the contract with Bexar County. From it deposits are made to the debt service funds required by the bond resolutions. Any surplus amounts in the Gross Revenue Fund may be used for any lawful purpose.

Debt Service Fund — The bond resolutions require accounts (called funds) to be established, as follows, and they are accounted for in the Debt Service Fund:

The Channel Improvement Revenue Bonds Interest and Sinking Fund (the "Interest and Sinking Fund") — Established for the purpose of paying the principal and interest on all bonds. Deposits from the Gross Revenue Fund to the Interest and Sinking Fund are made on or before each December 31 and June 30 in amounts sufficient to pay the principal and interest coming due on the bonds on the next succeeding interest payment date.

The Channel Improvement Revenue Bonds Reserve Fund (the "Reserve Fund") — Established to pay the principal and interest on any bonds to the extent the amounts in the Interest and Sinking Fund are not sufficient for such purpose. No additional deposits are to be made into the Reserve Fund as long as the market value of investments and money is at least equal to the average annual principal and interest requirements on all outstanding bonds, which was \$2,867,068 at June 30, 1987.

At June 30, 1987, the balances of cash and certificates of deposit in the required funds were: Interest and Sinking Fund, \$1,502,439; and Reserve Fund, \$2,867,069. An additional \$1,631,522 had been remitted to the fiscal agent for principal and interest amounts due July 1, 1987.

Channel Improvement Revenue Bonds: In addition to the Refunding Revenue Bonds, Series 1980, issued in the amount of \$13,045,000 under provisions of The 1979 Amending Contract, additional Channel Improvement Revenue Bonds were issued in series and amounts as follows: Series 1980 — \$4,000,000; Series 1982 — \$6,000,000; Series 1983 — \$6,000,000; and Series 1987 — \$6,060,000. These bonds are reported in the General Long-Term Obligations group of accounts.

The Channel Improvement Revenue Bonds are due serially through 2014, with interest rates of 7.8% to 10.0%. Annual requirements for principal and interest range from a high of \$3,434,647 in fiscal year 1990 to a low of \$1,356,386 in fiscal year 2014.

NOTE F — REVENUE BONDS PAYABLE — MARTINEZ/SALATRILLO SEWAGE SYSTEM

The Authority has issued revenue bonds for the purpose of constructing sewage facilities and improvements to the Martinez/Salatrillo Creeks Sewage System. At June 30, 1987, bonds have been issued in the aggregate amount of \$7,960,000 consisting of Series 1969, 1972, 1974, 1982 and 1985. The bond covenants authorizing issuance of these bonds provide for creation and maintenance of separate accounts which are accounted for within an enterprise fund as follows:

1. Revenue Fund: All gross revenues of the system must be deposited into this account, from which disbursements for current expenses of the system are made. After all required deposits have been made to the Interest and Sinking Fund and Reserve Fund, at the end of each fiscal year one-half of the money remaining in the Revenue Fund must be deposited into the Contingency and Improvement Fund.
2. Interest and Sinking Fund: This account is to be used only for the payment of principal and interest on outstanding bonds. On or before the fifteenth day of each month, in equal monthly installments, an amount must be deposited as is necessary for the payment of principal and interest on the next interest and/or principal payment date.
3. Reserve Fund: The minimum amount to be in this account is an amount equal in market value to the average annual principal and interest requirements of all outstanding sewage system revenue bonds. The Reserve Fund complied with this requirement during fiscal 1987. The Fund may be used only to pay principal of and interest on the bonds for which the Interest and Sinking Fund is not adequate.
4. Contingency and Improvement Fund: This account is used only for making replacements that are not considered as current expenses; improvements, additions, and extensions to the System; payment of principal and interest on bonds if the Interest and Sinking Fund and Reserve Fund are insufficient; and for the purchase of outstanding bonds for redemption.
5. Construction Fund: Moneys in this account are used only for paying the cost of constructing improvements to the System.

At June 30, 1987, the balance of cash, certificates of deposit, and cash with fiscal agent in the required funds were: Interest and Sinking Fund, \$518,978, Reserve Fund, \$755,415, Contingency and Improvement Fund, \$3,166,900 and Construction Fund, \$233,100.

Interest expense on bonded debt and interfund loans for the Martinez/Salatrillo System is apportioned based on the ratio of the net book values of noncontributed assets. The interest earned on investments from the Construction Fund and Reserve Fund accounts is apportioned based on the same ratio. Other interest income is apportioned based on the ratio of the prior year's revenues for the Martinez/Salatrillo System.

The Martinez/Salatrillo Creeks Sewage System Revenue Bonds are due serially through the year 2006, with interest rates of 5.4% to 9.14% and are callable at a premium from July 1, 1995 through January 1, 2000 on any interest payment date. Annual requirements of principal and interest range from a high of \$789,879 in fiscal year 1988 to a low of \$501,440 in fiscal year 2001.

Additional bonds on a parity with all outstanding bonds may be issued when the net revenues of the System are (1) at least 1.25 times the average annual principal and interest requirements on all outstanding bonds and the then proposed additional bonds for the past fiscal year or twelve-month period ending within ninety days of the sale of the additional bonds, and (2) are estimated by a Registered Professional Engineer to be at least 1.50 times the future principal and interest requirement on the then outstanding bonds and the then proposed additional bonds.

NOTE G — POLLUTION CONTROL CONTRACT FUND — CITY OF KENEDY

On May 15, 1974, the Authority entered into an agreement with the City of Kenedy, Texas, whereby the Authority would issue revenue bonds for the purpose of constructing sewage facilities for the City of Kenedy. On April 1, 1974, the Authority issued bonds in the amount of \$365,000 for this purpose. The bond resolution authorizing the issuance of these bonds provides for the creation of a Revenue Fund to account for all revenues received by the Authority under the contract with the City and an Interest and Sinking Fund which can only be used for the payment of principal and interest on outstanding bonds. On or before March 25 and September 25 of each year, as long as bonds are outstanding, deposits must be made to the Interest and Sinking Fund for the interest and principal due. The Authority has established the Pollution Control Contract Fund as an enterprise fund to account for the requirements.

The City of Kenedy Waste Disposal Contract Revenue Bonds are due serially from fiscal year 1994 through fiscal year 2002, with interest of 5.4%. Annual interest requirements through 1993 are \$19,710; thereafter, principal and interest requirements range from a high of \$53,765 in fiscal year 1994 to a low of \$48,640 in fiscal year 1999.

NOTE H — PARTICIPATION IN FEDERAL CONSTRUCTION PROJECTS

The Authority and the United States Army Corps of Engineers have entered into an agreement which provides that the agencies will cooperate in improving the channel of the San Antonio River and its four tributaries within the City of San Antonio. The agreement further provides that the Authority will pay 2.65% of actual federal costs. Cash payments to June 30, 1987, amounted to \$928,427. Pursuant to the agreement, the Corps transfers to the Authority all improvements as they are completed, and the cost to the Corps of Engineers is used as the basis of the additions to the Authority's General Fixed Assets group of accounts.

NOTE I — STATE-DONATED TAXES — GENERAL FUND

In prior years, the Legislature of the State of Texas donated certain ad valorem taxes to the San Antonio River Authority. At June 30, 1987, the fund balance of the General Fund included \$79,399 of these State-donated taxes which are restricted for the construction of improvements, structures, dams, reservoirs, and other works suitable for use in connection with flood control, for the employment of necessary personnel, maintenance of offices, financial aid to the U. S. Army Corps of Engineers and other governmental agencies.

NOTE J — GENERAL FIXED ASSETS

The following table summarizes the changes in the components of the General Fixed Assets Account Group:

	Balance July 1, 1986	Additions — Net	Balance June 30, 1987
Office Furniture, Fixtures and Equipment	\$ 632,385	\$ 91,953	\$ 724,338
Other Machinery and Equipment	586,301	23,261	609,562
Automobiles and Trucks	277,334	24,141	301,475
Buildings	415,506	1,265,351	1,680,857
Improvements Other Than Buildings	70,041		70,041
Land	90,318	8,580	98,898
Soil Conservation Service Projects	11,711,524	1,141,033	12,852,557
Model Cities Project	9,109,195		9,109,195
Flood Control Projects	77,220,691	9,477,784	86,698,475
	\$ 100,113,295	\$ 12,032,103	\$ 112,145,398

NOTE K — SEGMENT INFORMATION FOR ENTERPRISE FUNDS

The significant portion of the Authority's enterprise funds consists of the Sewage Treatment Funds and the Parks and Recreation Fund. Segment information for the year ended June 30, 1987, is as follows:

	Sewage Treatment Funds	Parks and Recreation Fund	Other Funds	Total Enterprise Funds
Property, Plant and Equipment	\$19,249,344	\$2,119,986		\$21,369,330
Accumulated Depreciation	(1,860,210)	(443,518)		(2,303,728)
Working Capital	2,561,453	246,195	\$ (1)	2,807,647
Property Additions	888,146	585,375		1,473,521

NOTE K — SEGMENT INFORMATION FOR ENTERPRISE FUNDS — Continued

Total Equity	16,613,757	1,922,663		18,536,430
Total Assets	25,122,527	2,182,688	369,903	27,675,118
Long-Term Liabilities:				
Payable From Operating Revenues	6,940,000			6,940,000
Payable From Other Sources			365,000	365,000
Operating Revenues	2,963,617	931,057	730	3,895,404
Depreciation	594,447	81,054		675,501
Operating Income (Loss)	1,262,825	(112,673)		1,150,152
Net Income (Loss)	1,055,105	(70,656)		984,449

NOTE L — LONG-TERM DEBT MATURITIES

Principal and interest requirements to maturity for all long-term debt of the River Authority as of June 30, 1987 are as follows:

	Principal	Interest	Total
General Long-Term Obligations Group			
Channel Improvement Bonds —			
Note E			
1988	\$ 445,000	\$ 2,651,084	\$ 3,096,084
1989	605,000	2,814,711	3,419,711
1990	680,000	2,754,647	3,434,647
1991	740,000	2,689,206	3,429,206
1992	805,000	2,617,658	3,422,658
1993-1997	5,210,000	11,774,426	16,984,426
1998-2002	7,960,000	8,918,566	16,878,566
2003-2007*	9,110,000	4,854,003	13,964,003
2008-2012*	5,410,000	2,026,038	7,436,038
2013-2014*	2,515,000	201,800	2,716,800
TOTAL	\$33,480,000	\$41,302,139	\$74,782,139

*Series 1980 Refunding Bonds covenants require mandatory early redemption of fixed amounts of bonds through random selection of bonds each year. The fixed amount of required redemption for bonds with July 1, 2013 maturity is included for years 2001 through 2013.

NOTE L — LONG-TERM DEBT MATURITIES — Continued

	Principal	Interest	Total
Enterprise Funds			
Martinez/Salatrillo Creeks Sewage System Bonds —			
Note F			
1988	235,000	554,879	789,879
1989	245,000	537,089	782,089
1990	265,000	517,501	782,501
1991	250,000	497,426	747,426
1992	285,000	476,335	761,335
1993-1997	1,905,000	1,973,397	3,878,397
1998-2002	2,200,000	1,120,598	3,320,598
2003-2006	1,790,000	248,625	2,038,625
TOTAL	\$ 7,175,000	\$ 5,925,850	\$13,100,850

City of Kenedy Waste Disposal Contract Bonds — Note G			
1988		\$ 19,710	\$ 19,710
1989		\$ 19,710	\$ 19,710
1990		\$ 19,710	\$ 19,710
1991		\$ 19,710	\$ 19,710
1992		\$ 19,710	\$ 19,710
1993-1997	\$ 145,000	83,295	228,295
1998-2002	220,000	31,050	251,050
TOTAL	\$ 365,000	\$ 212,895	\$ 577,895

San Antonio River Authority Pollution Control Revenue Bonds totaling \$7,535,000 have been issued in prior fiscal years by the River Authority pursuant to applicable laws including the Texas Clean Air Financing Act. These bonds were issued for the construction of pollution control facilities on premises of various local corporations. The River Authority has entered into installment sales agreements which provide for funding of these bonds from the various corporations. The bonds are special revenue obligations of the River Authority, and the principal, redemption premium, and interest on the bonds are payable solely from and secured by a first lien on the pledge of the payments from the installment sale agreements. The corporations are absolutely and unconditionally obligated to the River Authority to pay each installment.

The River Authority has assigned and transferred to a Trustee all payments under the installment sales agreements. The Trustee has agreed to hold debt service funds and construction funds required by the bond resolutions and to administer such funds in accordance with the bond resolutions and trust indentures. As a result of these agreements, the obligations for these bonds have not been recorded in the financial statements of the River Authority.



