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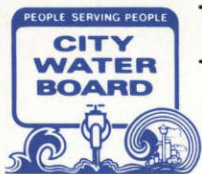
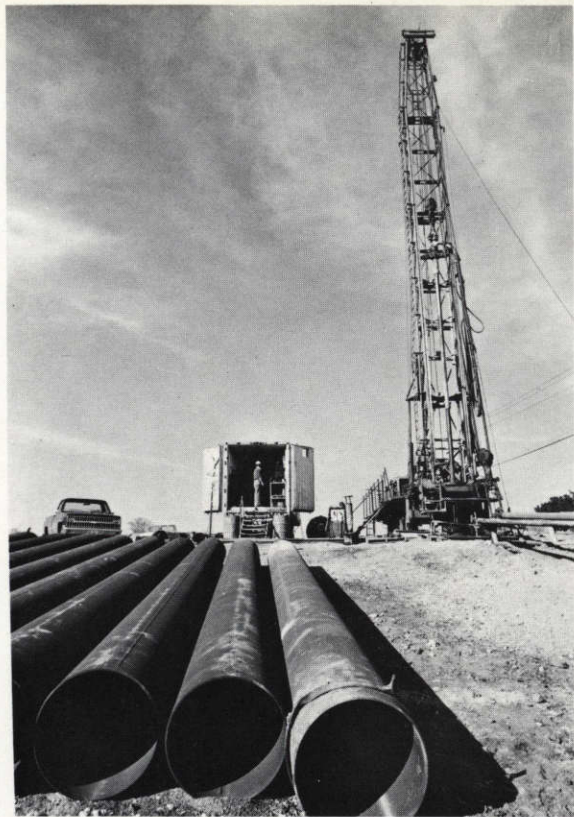
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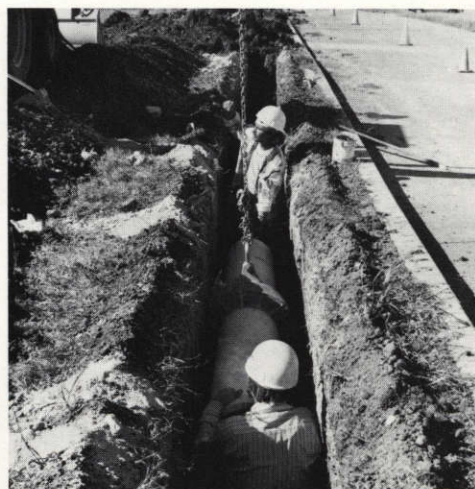
Looking to 2005

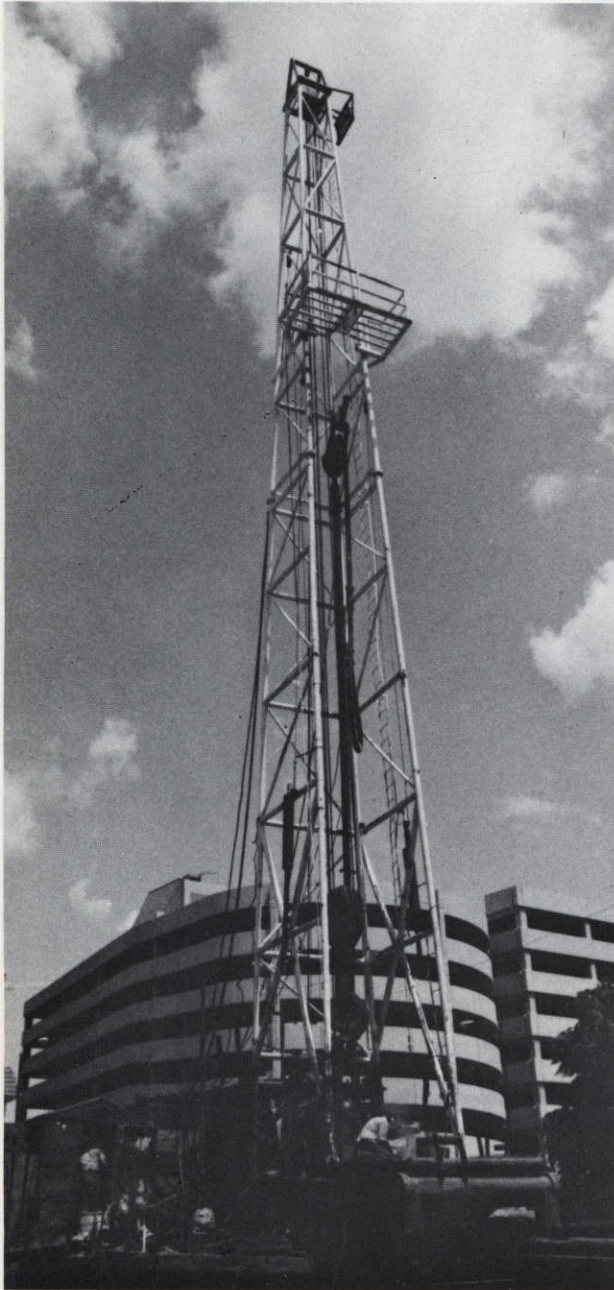


**CITY WATER BOARD
 SAN ANTONIO, TEXAS
 1981 ANNUAL REPORT**



Looking to 2005





To meet the increased demand for water in the Central Business District, two new wells are being drilled at the Market Street Pump Station.

ABOUT THE COVERS

San Antonio has grown to become the 11th largest city in America, and it is not stopping there. Presently San Antonio is experiencing a building boom the likes of which it has never seen. As the skyline of the city is constantly changing so are its needs for the availability of around-the-clock high quality water. The outside and inside covers as well as other pages of this report depict some of the changes that are taking place in and around San Antonio. Also depicted is some of the work that is being done by the City Water Board to meet these changes and the water requirements of the future.

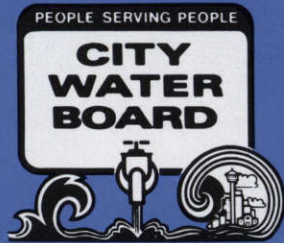
Looking to 2005

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Highlights of 1981

	<u>1980</u>		<u>1981</u>
Total Revenue Increased from	\$ 25,426,090	to	\$ 29,687,827
Total Operating Cost Before Depreciation			
Increased from	\$ 14,806,256	to	\$ 17,724,977
Construction from Revenue Increased from	\$ 10,676,174	to	\$ 12,396,719
Municipal Equity Rose from	\$129,337,704	to	\$138,816,653
Debt Coverage Decreased from	1.98	to	1.66
Water Service Cost Per Customer Increased from	\$ 79.93	to	\$ 88.74
Investment in Gross Utility Plant Per Customer			
Increased from	\$ 1,110	to	\$ 1,191
Miles of Main in Use Went Up from	2,614	to	2,698
Fire Hydrants in Service Increased from	11,398	to	11,830
New Services Installed Decreased from	6,726	to	5,009
Number of Customers Increased from	183,084	to	188,969
Number of Budgeted Employees Decreased from	772	to	746



Robert L. Gragg

Dr. Robert L.M. Hilliard

Richard R. Solis
Vice-Chairman

Dr. Jose San Martin, Jr.
Chairman

Henry Cisneros
Mayor



◁ Outgoing chairman, John M. Schaefer, was honored with a bronze plaque in appreciation for his dedication in serving the Board of Trustees and the citizens of San Antonio.

A Message from the Board of Trustees to the Citizens of San Antonio.

In keeping with the City Water Board's commitment to maintain the highest standard of service at the lowest possible cost to all of our citizens the Board adopted an updated master plan that outlines the required capital improvements for the orderly growth of the water system to the year 2005. In so doing the City Water Board maintains its momentum and commitment to continue this standard of excellence in our water system.

Despite the high number of service line failures and main breaks that occurred during 1981 the personnel of the City Water Board were able to mount a major effort to make the necessary repairs and to reduce the inconvenience to the citizens as much as possible. This effort was accomplished by the unselfish dedication of our employees who were called upon to work unusually long hours and sometimes on a seven day basis.

The future holds a great challenge for the Water Works Board of Trustees, its General Manager, and its staff for the Board desires to be an integral part of the economic development of our community, and it is committed to support the City Council in its current efforts to attract new industries and businesses to San

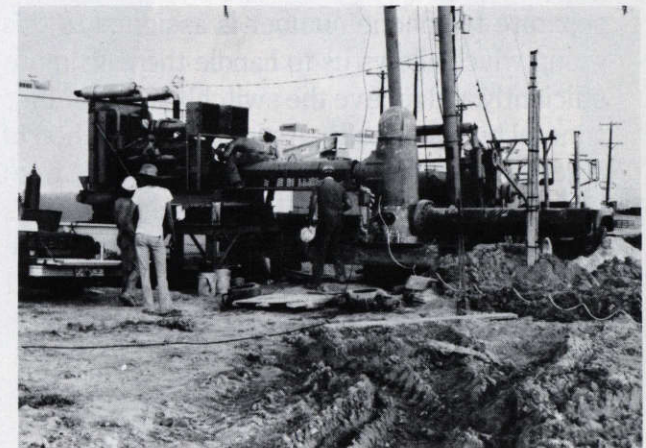
Antonio. These efforts of the City Water Board include the expansion of the present water system and the long-range development of a supplemental surface water supply. The Applewhite Water Supply Project was approved by the City Council on 19 July 1979, and at the present time the Board is in the process of obtaining a permit from the Texas Water Commission for San Antonio's first surface water project.

In closing I would be remiss not to recognize the dedication and leadership provided by outgoing Chairman John M. Schaefer during the eight years he served on the Water Works Board of Trustees.

On behalf of the Board I encourage every employee of the City Water Board to give his or her best efforts to carry out the important tasks that will contribute to the growth and prosperity of San Antonio not only in the immediate future, but for years to come.

Dr. Jose San Martin, Jr.

Dr. Jose San Martin, Jr.
Chairman



(Top) Workers testing the tapping procedures on an asbestos-cement pipe. (Center) Pump column and shafting ready for installation. (Bottom) Test pump on a new well at the Naco Pump Station.

A Report from the General Manager

The year 1981 was a busy and exciting year for the City Water Board, and it was filled with progress and accomplishments as the City Water Board expanded its water system to meet the impressive growth and economic development that is taking place in San Antonio. The year was also filled with challenges, and each of these was met and resolved through the dedicated efforts of our loyal employees.

In continuing to provide the best service possible to our customers a new method of receiving customer telephone inquiries concerning billing, transfers, and turn-on and turn-off service was initiated in September 1981. Through a Uniform Call Distribution (UCD) group with its own incoming trunks these types of inquiries, which consist of over 50% of the incoming telephone calls, are now automatically routed to the proper area without going through the main PBX switchboard. A separate telephone number is assigned to this group which allows us to handle the calls more efficiently and relieve the switchboard for other general business calls. An improved method of receiving distribution system trouble calls from the general public was also implemented. Calls reporting any necessary distribution system maintenance now go through a separate direct telephone number available at all hours, 7 days a week.

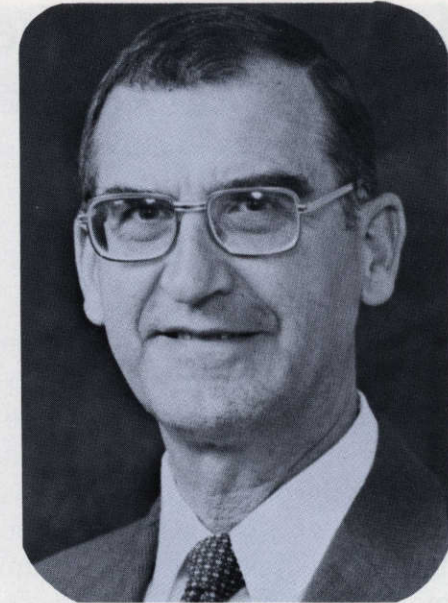
Plastic service line failures continued to increase during 1981. Contract maintenance crews were again used to assist our regular work forces in repairing and replacing faulty service lines. A major program has been initiated to replace all existing plastic service lines with copper tubing, and copper tubing is now being utilized in the installation of all new services. A complete investigation is being conducted to determine the cause of plastic service line failures in our system.

Revenues

Gross revenue for 1981 was \$29,687,827, up significantly over the previous year's total of \$25,426,090. Gross revenue includes interest earned on time deposits and investments which amounted to \$3,456,327.

Metered water sales per customer showed an increase of \$8 from \$115 in 1980 to \$123 in 1981.

Spiraling inflation continued to cause problems in 1981. The cost of operating and maintaining the system increased to \$17,724,977 compared to \$14,806,256 incurred in 1980. Costs of providing water service on a per customer basis also continued to rise as it increased to \$88.74 from \$79.93 in 1980.



ROBERT P. VAN DYKE
General Manager

Utility Plant Additions

Net additions to utility plants rose significantly in 1981 from \$13,788,551 in 1980 to \$23,228,164 this past year.

The City Water Board's plant and distribution system continued to increase in value during 1981. Gross value of the utility including construction in progress at the end of the year was \$225,021,065 compared to \$203,147,097 at the end of 1980. Municipal equity, including reserves, also increased from \$129,337,704 in 1980 to \$138,816,653.

Data Processing Center

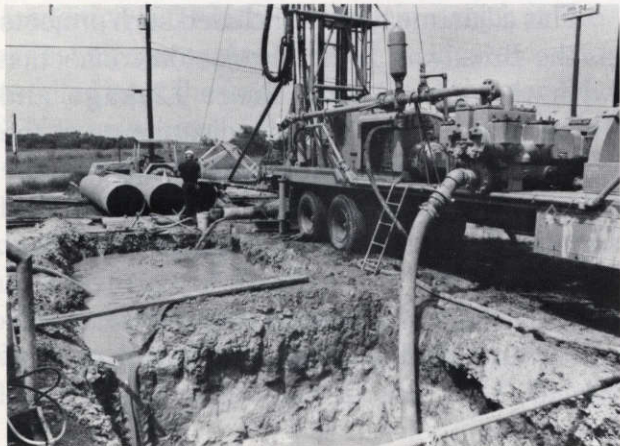
During 1981, the Consolidated Data Processing Center was reorganized, functions re-grouped, and the City of San Antonio application programming decentralized with a transfer of

functions and personnel to the City. The use of the center continued to grow, however, and it served 128 users at the end of 1981. Terminals in use increased from 461 to 507, and 33,037,312 teleprocessing transactions were processed during the year. This was an increase of 8.5% over 1980.

Employee Education and Training

Numerous training and educational programs were once again offered to all City Water Board personnel. These programs are designed to aid the employees in improving technical skills, increasing knowledge, and furthering their personal development.

Sixty-three employees attended water works short schools, which are conducted by the Texas A&M University Engineering Extension Service. The purpose of these water



Drilling of a new well for the City Water Board.

works short schools is to provide knowledge to the student so that they may qualify for water works certificates of competency. As a result of this continuing program, 170 employees now hold water works certificates of competency, which are issued by the Texas Department of Public Health.

Participation in the Vocational Office Education program continued during 1981 with a total of 12 students from various high schools being employed on a part-time basis. The utility's Tuition Refund Program also assisted 41 employees attending local colleges in 1981.

Many City Water Board employees participated in supervisory and professional development seminars with 13 employees attending a variety of outside programs leading to increased professional expertise. In addition the City Water Board offered supervisory and management training programs to all levels of personnel.

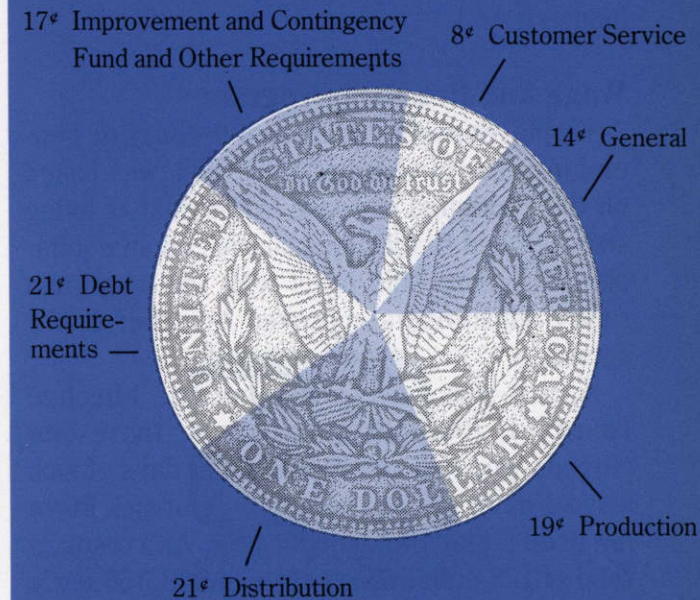
Safety Record

The City Water Board's safety record continued to be one of the most highly regarded in the entire water supply industry. There was a substantial improvement in the 1981 safety record compared to 1980. Only 21 lost-time injuries occurred in 1981 as compared to an all time high of 27 in 1980.

Revenue



Expense



The City Water Board continues to lead water utilities of comparable size with an injury rate that is significantly lower than other water utilities on a national basis.

A total of 124 employees representing 1,247 years of accident free work were presented Awards of Merit. The individual must have five or more years of service without loss-time injury or a chargeable vehicular accident and has spent at least 50 per cent of that time in the field or full time in other specific work areas to receive this award.

It is because of individuals such as these that the City Water Board has maintained its leadership in accident prevention in the water works industry.

Wage and Benefits Program

Employees were granted a 9 per cent general increase in October 1981. This was based on the continued increase in the cost of living and the need to maintain salaries on an equitable and comparable basis with the wage and salary adjustments approved by other public agencies.

A new sick leave policy became effective January 1, 1981, that provides for those employees who had accumulated 110 days of sick leave 1 day's pay for each 2 day's of sick leave not used during the calendar year. As a result, a total of 128 employees received \$48,456 early

in January 1982.

The City Water Board's retirement program also was revised effective January 1, 1981, and a final revision was made to the program effective January 1, 1982. This action was taken following recommendations through studies by national actuarial firms. The revision improved benefits to all employees making them more comparable to those of other public agencies.

Main Replacements

Progress was made during the year on the Board's continuing program of replacing sub-standard mains. As a result of construction funds from the sale of two \$15,000,000 Water Revenue Bonds sales which became available during 1981, over 114,000 feet of undersized and inadequate water mains had been replaced or were under contract to be replaced by the end of the year.

Additional work was also completed in the central and west sections of the city with the replacement of over six miles of undersized and inadequate water mains.

The City Water Board was also involved in a number of major adjustment projects involving the utility's facilities and the projects of other government agencies. These public works projects were in direct support of various government construction programs in connection with the City of San Antonio, San Antonio De-



City Water Board safety inspector examining 60-inch pipe before installation.

velopment Agency, and the Texas Department of Highways and Public Safety.

This adjustment work included such projects as the Broadway Bridge Project in connection with the new Alamo River Linkage and Hyatt Hotel, water facility adjustments at the San Antonio International Airport, the Olmos Creek Drainage Project, and the Colonia Amistad/Colonia Immaculada Street improvements.

In all a total of 58 such projects were accomplished in 1981 with an estimated cost of \$3,500,000.

System Growth

With the addition of approximately 87 miles of new water mains to the system in 1981 there are now over 2,700 miles of mains in use. The water system also contains some 12,500 fire hydrants serving nearly 190,000 customers.

Major residential and commercial expansion along with the acquisition of the Valencia Water Company and its 2,000 active customers in the northeast part of the city has accounted for a substantial portion of this increase.

In all the City Water Board was involved in some 279 construction projects during 1981 with 156 of these being water facility projects costing in excess of \$14,510,000.

As a result of the Bond Sales, a number of large diameter transmission main contracts were awarded during the year. These consisted of 24, 30, and 36-inch mains which will reinforce water service in all areas of the city. In addition a 60-inch trunk main, which is the largest pipe ever placed within the system, was installed near the intersection of O'Connor Rd. & Nacogdoches.

During the year development proceeded at the Naco Pump Station which will be capable of supplying the rapid growth in the north and northeast part of San Antonio. Initial facilities provide for two new wells that will deliver a 20 MGD capacity. It is anticipated that ultimate development will result in 100 MGD being

available. In addition a northeast service center will also be constructed on this site allowing maintenance and construction crews to better serve the greatly expanded north and northeast section of San Antonio.

In order to support additional water demands in the downtown area construction began on two new water wells at the City Water Board Market Street Pump Station. Major commercial development in the Central Business District is placing heavy domestic and fire flow demands on the water system.

New production facilities placed in service during the year included high service pumps at the Bitters, Maltsberger, Randolph, and Wurzbach Pump Stations. These new facilities consist of a 7.5, 13, and 15 MGD capability with associated electrical switchgear, piping and chlorination facilities.

The City Water Board's continued progress in the face of many obstacles is due in large measure to the competence, dedication and loyalty of our employees and the supervisory staff to all of whom I wish to express my thanks for their continued support.

With the substantially improved financial resources the City Water Board will be able to maintain its current progressive construction program, and thereby upgrade the system's reliability, replace substandard and obsolete transmission lines, and generally strengthen

existing facilities.

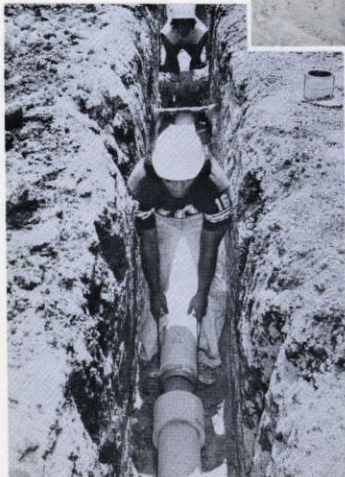
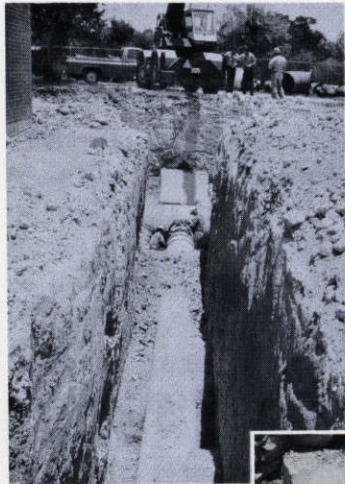
This opportunity to progress has been made possible by the outstanding leadership and counsel offered by the Board of Trustees to whom I am deeply indebted. I especially wish to single out with gratitude the services and many contributions of Mr. John M. Schaefer, who retired after 8 years of service to the Board of Trustees, spending the last 7½ years as Board Chairman.

I would also like to extend my sincere appreciation to the City Administration and to our citizen-customers for their continued support and understanding. It was an honor and pleasure to serve them this past year.

Robert P. Van Dyke
General Manager



Statements of Revenues and Their Disposition



Revenues	Year ended December 31	
	1981	1980
Operating revenues:		
Metered water sales—net of services provided to City of San Antonio of \$263,867 in 1980	\$22,904,499	\$20,842,317
Customers' penalties	583,178	559,926
Central heating and cooling sales	1,982,470	1,861,631
Fire protection and miscellaneous	601,558	480,135
	<u>26,071,705</u>	<u>23,744,009</u>
Nonoperating revenues:		
Interest earned and miscellaneous	3,456,327	1,682,081
Unrealized gain in market value of investment	159,795	—
	<u>3,616,122</u>	<u>1,682,081</u>
Total Revenues	<u>\$29,687,827</u>	<u>\$25,426,090</u>
Disposition of Revenues		
Operating expenses before depreciation:		
Maintenance and operation	\$17,886,889	\$15,699,653
Working Capital Fund—net gain	(104,591)	(186,285)
Data Processing Fund—net gain	(57,321)	(707,112)
	<u>17,724,977</u>	<u>14,806,256</u>
Debt requirements:		
Interest costs	5,078,498	2,904,468
Retirement of bonds	1,160,000	1,231,667
Reserve funds provision	279,093	(102,255)
	<u>6,517,591</u>	<u>4,033,880</u>
Capital requirements:		
System Fund	342,310	249,036
Improvement and Contingency Fund	4,479,195	5,193,016
Working Capital Fund	908,045	346,174
Data Processing Fund	67,508	184,030
	<u>5,797,058</u>	<u>5,972,256</u>
Other requirements:		
Debt service on acquired water systems	82,388	83,973
Debt service on notes payable	707,024	560,650
Loss on sale of fixed assets	11,019	1,335
Capitalized interest costs	(359,967)	(388,324)
	<u>440,464</u>	<u>257,634</u>
Increase (decrease) in working capital	(792,263)	356,064
	<u>\$29,687,827</u>	<u>\$25,426,090</u>

Certain 1980 amounts have been reclassified to conform with 1981 classifications.

Summary of Debt Charges Until Maturity

Balance Sheets



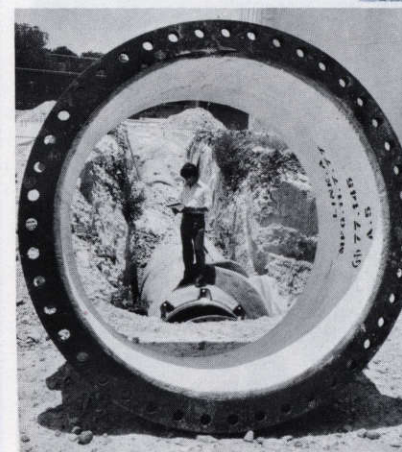
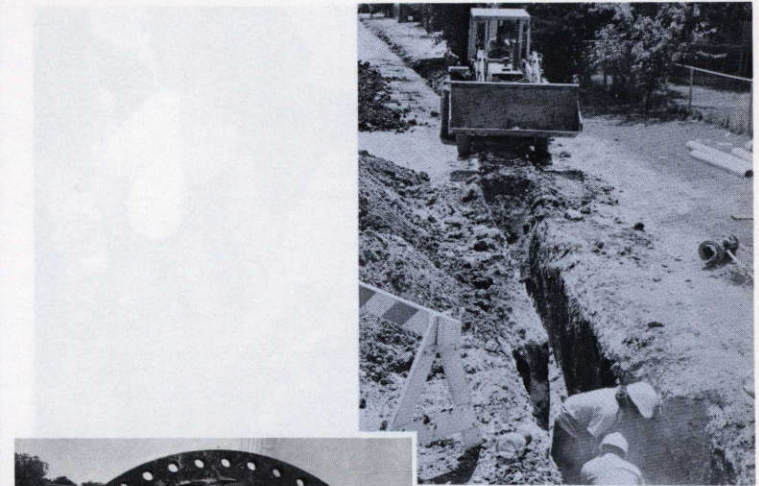
Calendar Years	Annual Requirements to Retire			Principal Balance Outstanding
	Total	Interest	Principal	
				\$66,615,000
1982	\$ 7,184,835	\$ 5,884,835	\$ 1,300,000	65,315,000
1983	7,180,315	5,770,315	1,410,000	63,905,000
1984	7,141,620	5,646,620	1,495,000	62,410,000
1985	7,128,250	5,513,250	1,615,000	60,795,000
1986	7,132,003	5,367,003	1,765,000	59,030,000
1987	7,125,970	5,205,970	1,920,000	57,110,000
1988	7,114,407	5,029,407	2,085,000	55,025,000
1989	7,096,350	4,836,350	2,260,000	52,765,000
1990	7,090,600	4,625,600	2,465,000	50,300,000
1991	7,071,913	4,391,913	2,680,000	47,620,000
1992	7,029,000	4,139,000	2,890,000	44,730,000
1993	7,024,512	3,869,512	3,155,000	41,575,000
1994	7,039,575	3,574,575	3,465,000	38,110,000
1995	7,030,837	3,250,837	3,780,000	34,330,000
1996	7,009,200	2,894,200	4,115,000	30,215,000
1997	6,976,950	2,501,950	4,475,000	25,740,000
1998	6,977,100	2,072,100	4,905,000	20,835,000
1999	6,955,725	1,600,725	5,355,000	15,480,000
2000	6,943,813	1,088,813	5,855,000	9,625,000
2001	5,217,625	617,625	4,600,000	5,025,000
2002	1,464,000	364,000	1,100,000	3,925,000
2003	1,463,375	263,375	1,200,000	2,725,000
2004	1,458,875	158,875	1,300,000	1,425,000
2005	1,478,438	53,438	1,425,000	—
	<u>\$145,335,288</u>	<u>\$78,720,288</u>	<u>\$66,615,000</u>	
Average Annual Requirements		1981	\$6,056,789	
		1982	6,055,637	

Revenue bond coverage as defined by revenue bond ordinance:

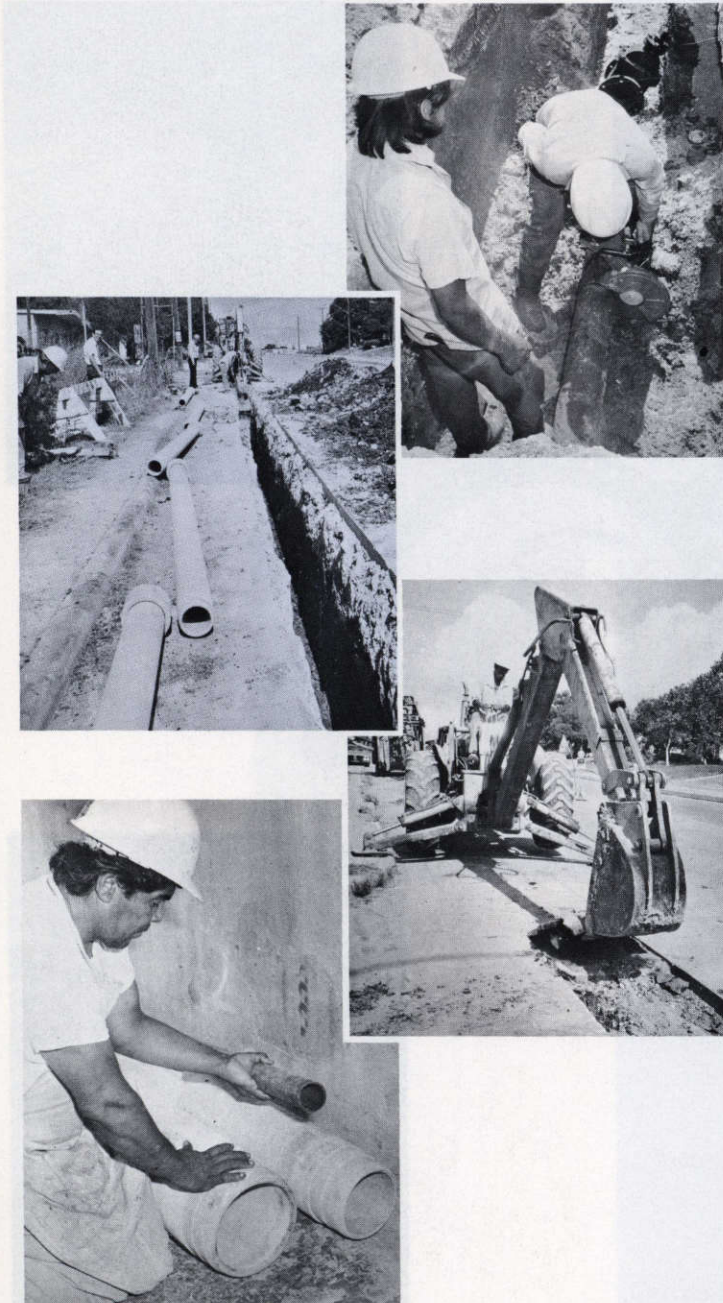
	1981	1980
Revenues	<u>\$29,687,827</u>	\$25,426,090
Operating expenses before depreciation	<u>(17,724,977)</u>	(14,806,255)
Available for debt service and other requirements	<u>\$11,962,850</u>	<u>\$10,619,835</u>

Times debt coverage:

Ratio to highest annual total debt requirements for all outstanding bonds	<u>1.66</u>	<u>1.98</u>
Ratio to highest annual total debt requirements for outstanding Prior Lien Water System Revenue Bonds only	<u>3.64</u>	<u>7.19</u>



Balance Sheets



Assets	December 31	
	1981	1980
Current Assets		
Cash	\$ 2,477,721	\$ 1,800,041
Accounts receivable—net of allowance of \$199,623 in 1981 and \$89,048 in 1980	4,128,949	4,416,198
Inventory—materials and supplies	1,367,219	1,249,072
Prepaid expenses	47,861	126,835
Interfund receivables	533,437	279,305
Total current assets	8,555,187	7,871,451
Deferred Charges	481,032	505,913
Restricted Assets—Note B		
Prior Lien Bond funds:		
Cash	2,708,167	1,711,795
Bonds and Additional Bonds funds:		
Cash	2,562,845	2,624,072
Accounts receivable	53,408	53,409
Investments (approximates market)	2,860,125	2,668,000
Construction funds:		
Cash	23,498,096	17,355,443
Accounts receivable	14,143	63,507
Interfund receivables	9,116,211	4,615,939
Unamortized bond expense	119,311	68,598
Prepayments	—	36,118
Cash—customers' deposits	2,099,655	1,878,115
Cash—pledged for Social Security payments	240,000	240,000
43,271,961	31,314,996	
Utility Plant		
Utility plant in service	213,077,045	193,746,237
Less allowances for depreciation	(51,083,581)	(47,058,000)
	161,993,464	146,688,237
Land	2,391,192	1,652,018
Construction in progress	9,552,828	7,748,842
173,937,484	156,089,097	
\$226,245,664	\$195,781,457	

Liabilities and Equity	December 31	
	1981	1980
Current Liabilities		
Accounts payable	\$ 1,203,668	\$ 589,945
Sewer service collections due to the City of San Antonio and others	1,612,326	1,370,702
Notes payable—current portion	561,926	471,930
Due to City for acquisition of water districts— current portion	46,672	46,047
Accrued vacation pay	787,500	685,699
Sundry payables and accruals	944,252	663,853
Interfund payables	3,007,358	2,859,527
Total current liabilities	<u>8,163,702</u>	<u>6,687,703</u>
Liabilities of Restricted Funds		
Prior Lien Bond funds:		
Accrued interest payable	469,038	213,446
Interfund payable	7,386	19,911
Bonds and Additional Bonds funds:		
Accrued interest payable	520,885	531,445
Interfund payable	526,050	190,380
Construction funds:		
Interfund payable	6,108,854	1,825,426
Advances for construction	20,503	55,953
Customers' deposits	2,099,655	1,878,115
Revenue bonds payable within one year	1,300,000	880,000
	<u>11,052,371</u>	<u>5,594,676</u>
Long-Term Debt—amounts payable after one year		
Revenue bonds—Note C	65,315,000	51,615,000
Due to City for acquisition of water districts	640,025	686,697
Notes payable—Note D	2,257,913	1,859,677
	<u>68,212,938</u>	<u>54,161,374</u>
Equity		
Reserves:		
Retirement of bonds and interest— Prior Lien Bond funds	2,231,743	1,478,437
Retirement of bonds and interest— Bonds and Additional Bonds funds	4,429,443	4,623,657
Construction	26,618,404	20,258,226
Pledged for Social Security payments	240,000	240,000
	<u>33,519,590</u>	<u>26,600,320</u>
Contributions in aid of construction	58,879,624	51,048,499
Retained earnings	46,417,439	51,688,885
	<u>138,816,653</u>	<u>129,337,704</u>
Contingencies and Commitments—Note F		
	<u>\$226,245,664</u>	<u>\$195,781,457</u>



See notes to financial statements.



Notes to Financial Statements

December 31, 1981 and 1980

Note A—Summary of Significant Accounting Policies

Management of the System: As specified by City Ordinance No. 52091, adopted April 24, 1980, the complete management and control of the System has been vested in a five member board of trustees known as the "Water Works Board of Trustees of San Antonio."

Fund Accounting: Within the Waterworks System accounts, separate self-balancing funds are maintained to account for resources for various purposes, thereby distinguishing balances restricted by outside sources from unrestricted sources. Restrictions are more fully explained in Note B. Interfund receivable and payable accounts of unrestricted funds have been eliminated in the financial statements.

Basis of Accounting: The financial statements are prepared using the accrual basis of accounting.

Inventory—Materials and Supplies: Inventories are valued at the lower of average cost or market.

Investment: The investment of the Bonds and Additional Bonds funds is carried at lower of amortized cost or market.

Utility Plant: Utility plant in service is recorded on the basis of cost. Assets acquired through contributions, such as from land developers, are capitalized and recorded in the plant records at contributors' reported costs.

The Waterworks System provides for depreciation of utility plant in service on the straight-line method at amounts estimated to amortize costs of assets over their estimated useful lives.

At the time of retirement of utility plant assets, the allowance for depreciation is charged with the original cost of the asset and the cost of removal.

Accrued Vacation Pay: It is the policy of the Board to accrue employee vacation pay as earned.

Services Provided to the City of San Antonio: Prior to May 20, 1980, it was the policy of the Board to charge the City of San Antonio for water services provided. The Board subsequently wrote off these amounts if the requirements of City Ordinance No. 24819 had been met. At May 20, 1980, these amounts, which were fully reserved in the balance sheet, totaled \$3,155,949. Upon adoption of City Ordinance No. 52091 on May 20, 1980, these amounts were written off. City Ordinance 52091 provides for no free services but allows the Board to provide water service to the City without charge for municipal and fire protection purposes in lieu of charges by the City to the Board for use of its streets, alleys, and public ways.

Note B—Adoption of City Ordinance No. 52091 and Early Extinguishment of Long-Term Debt

On April 24, 1980, City Ordinance No. 52091 was adopted. This ordinance authorized the issuance of \$37,495,000 Water System Revenue Refunding Bonds, Series 1980, dated May 1, 1980. These bonds were issued to refund in advance of maturity \$47,340,000 Water Revenue Bonds authorized and outstanding under terms of City Ordinance No. 24819. The purpose of this refunding was to release and discharge the restrictive covenants contained in City Ordinance No. 24819 in order to permit the City to meet future financing needs under more favorable conditions.

On May 20, 1980, proceeds from the sale of the Water System Revenue Refunding Bonds totaling \$37,495,000 were deposited, and the refunded bonds were legally defeased, and City Ordinance No. 24819 became inoperative. The advance refunding of the Water Revenue Bonds resulted in a gain from early extinguishment of long-term debt of \$10,367,500. Expenses relating to sale of the bonds of \$522,500 are being amortized over the life of the issue.

Ordinance No. 52091 requires that gross revenues of the System be applied in sequence to: (a) current expenses of operation and maintenance; (b) debt service and reserve requirements; (c) capital expenditures, or unexpected or extraordinary repairs or replacements, or for any other lawful purpose. The following funds are to be established to account for the application of the gross revenues: (i) System Fund; (ii) Interest and Sinking Fund; (iii) Reserve Funds; and (iv) Improvement and Contingency Fund. The System Fund is to retain at all times an amount at least equal to one-sixth of the amount budgeted for the then current fiscal year for the current operation and maintenance expenses of the System. The Reserve Funds are required to contain an amount of money and investments equal in market value to the principal and interest requirements during the fiscal year in which such requirements are scheduled to be the greatest. All funds fulfill requirements of the ordinance at December 31, 1981 and 1980.

Note C—Revenue Bonds

Prior Lien Water System Revenue Bonds, in the amounts of \$30,000,000 and \$15,000,000 for 1981 and 1980, respectively, are collateralized by an irrevocable first lien on and pledge of the gross revenues of the System after deducting and paying the current expenses of operation and maintenance of the System and extensions necessary to render efficient service. At December 31, 1981, these bonds are due in varying amounts, from a low of \$1,455,625 in 2001 to a high of \$3,288,725 in 1982, including interest at rates of 7.5% to 11.0%. At December 31, 1980, these bonds were due in varying amounts, from a low of

\$1,280,675 in 1981 to a high of \$1,478,438 in 2005, including interest at rates of 7.5% to 9.0%.

Water System Revenue Refunding Bonds, in the amounts of \$36,615,000 and \$37,495,000 for 1981 and 1980, respectively, are collateralized by an irrevocable lien on and pledge of the gross revenues of the System subordinate only to the prior lien on and pledge of the net revenues of the System created in connection with the Prior Lien Water System Revenue Bonds. At December 31, 1981, these bonds are due in varying amounts, from a low of \$3,762,000 in 2001 to a high of \$3,896,110 in 1982, including interest at rates of 7.3% to 9.0%. At December 31, 1980, these bonds were due in varying amounts, from a low of \$3,762,000 in 2001 to a high of \$4,036,990 in 1981, including interest at rates of 7.2% to 9.0%.

Annual Revenue Bond Debt Service Requirements

Year Ending December 31	Revenue Refunding Bonds		Prior Lien Revenue Bonds		Total
	Series 1980	Series 1981	Series 1980	Series 1981	
1982	\$ 3,896,110	\$ 1,817,050	\$ 1,471,675	\$ 7,184,835	
1983	3,895,090	1,807,675	1,477,550	7,180,315	
1984	3,888,770	1,795,550	1,457,300	7,141,620	
1985	3,886,650	1,780,675	1,460,925	7,128,250	
1986	3,883,028	1,786,675	1,462,300	7,132,003	
Thereafter	57,472,827	24,397,975	27,697,463	109,568,265	
Total	\$76,922,475	\$33,385,600	\$35,027,213	\$145,335,288	

City Ordinance No. 52091 also provides for the City to maintain rates sufficient to pay all current operation and maintenance expenses of the System, and, produce an amount of Pledged Revenue during each fiscal year at least equal to 1.25 times debt service requirements during such fiscal year of all then outstanding bonds. In order to offer for sale additional bonds on parity with the Prior Lien Water System Revenue Bonds, Pledged Revenues shall at least equal 1.25 times debt service requirements, during the fiscal year in which such requirements are scheduled to be greatest, of all then outstanding bonds plus the proposed additional bonds. In order to sell additional bonds on parity with the Water System Revenue Refunding Bonds, Pledged Revenues shall at least equal the aggregate of (a) 1.1 times debt service requirements of all then outstanding bonds, excluding all then outstanding Prior Lien Water System Revenue Bonds, and (b) 1.25 times debt service requirements of all then outstanding Prior Lien Water System Revenue Bonds.

Note D—Notes Payable

The Board's notes payable and related collateral at December 31, 1981 and 1980, are summarized as follows:



	1981		1980	
	Current	Long-Term	Current	Long-Term
Notes payable to:				
Water company, payable solely from net revenues of the acquired water system, due in annual installments of \$46,500, plus interest at 6% per annum	\$ 46,500	\$ 92,880	\$ 46,500	\$ 139,380
Water company, payable solely from net revenues of the acquired water system, due in annual installments of \$160,000, plus interest at 6% per annum	160,000	1,120,000	160,000	1,280,000
Water company, payable solely from net revenues of the acquired water system, due in annual installments of \$96,016, plus interest at 6% per annum	96,016	864,144	—	—
Supplier, collateralized by equipment, due in monthly installments of \$229, including interest at 6.21% per annum	1,700	—	1,597	1,700
Supplier, collateralized by equipment, due in monthly installments of \$320, including interest at 13.38% per annum	620	—	3,498	620
Supplier, collateralized by equipment, due in monthly installments of \$23,166, including interest at 6.5% per annum	257,090	180,889	260,335	437,977
	<u>\$561,926</u>	<u>\$2,257,913</u>	<u>\$471,930</u>	<u>\$1,859,677</u>

Note E—Pension and Retirement Plans

The Board's retirement program includes benefits provided by Texas Municipal Retirement System and a contract with Bankers Life Company. Provisions of the program apply to full-time employees after six months of service. In addition, Bankers Life Company provides a Spouses Annuity coverage for employees who complete ten years of service and who have

been married one year or more. The Board's policy is to fund pension costs accrued. The total pension expense for 1981 and 1980 was \$827,504 and \$513,212, respectively.

The plan with the Texas Municipal Retirement System is a defined contribution (money-purchase) type plan. The Board contributes a variable percentage of full salaries which is subject to change after TMRS completes its annual actuarial valuation. Funding of past service cost is part of the Board's annual contribution. During 1980, a change in the plan occurred whereby the actuarial gains and losses associated with current service benefits are now spread over a twenty-five year period instead of a five-year period.

As of January 1, 1981 and 1980, the net assets of the Bankers Life Company pension plan available for benefits were \$661,618 and \$512,912, respectively. As of the same valuation dates, the actuarial present value of vested benefits amounted to \$1,925,407 and \$819,704, respectively, while the actuarial present value of nonvested benefits amounted to \$235,893 and \$67,790, respectively. The rate of return assumed in the determination of the actuarial present values of vested and nonvested benefits is 6.5% for both 1981 and 1980.

Note F—Contingencies and Commitments

The Board is the subject of various claims and litigation which have arisen in the ordinary course of its operations. Legal counsel are of the opinion that the Board's liabilities in these cases, if decided adversely to the Board, will not be significant.

The Board is committed under various contracts for completion of construction or acquisition of utility plant totaling approximately \$18,200,000 at December 31, 1981. Funding of this amount will come from available revenues of the System, contributions from developers, and proceeds of revenue bond sales.

Note G—Accounting for Interest Costs

During 1981, interest cost incurred on revenue bonds totaled \$5,078,498, of which \$359,967 was capitalized as part of the cost of the Board's newly constructed utility plant additions.

Effective January 1, 1980, the Board adopted the policy of capitalizing certain interest costs on revenue bonds to comply with Financial Accounting Standards Board Statement No. 34. The Board previously followed the policy of expensing interest costs on revenue bonds as incurred. Total interest cost incurred on revenue bonds during 1980 was \$2,904,468, of which \$388,325 was capitalized as part of the cost of the Board's newly constructed utility plant additions. FASB Statement No. 34 prohibits retroactive application and prior year amounts have not been restated.

Board of Trustees
San Antonio Waterworks System
San Antonio, Texas

We have examined the balance sheets of the San Antonio Waterworks System, a city-owned utility doing business as City Water Board, as of December 31, 1981 and 1980, and the related statements of revenues and their disposition for the years ended December 31, 1981 and 1980. Our examinations were 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 balance sheets referred to above present fairly the financial position of the San Antonio Waterworks System at December 31, 1981 and 1980, in conformity with generally accepted accounting principles consistently applied during the period subsequent to the change, with which we concur, made as of January 1, 1980, in the method of accounting for interest costs as described in Note G to the financial statements. Further, in our opinion, the statements of revenues and their disposition present fairly the information contained therein, and the San Antonio Waterworks System has complied with the financial requirements of the bond ordinance which governs the revenue bonds.

Ernst & Whinney

San Antonio, Texas
January 29, 1982



Financial and Statistical Information

	1981	1980	1979	1978	1977
Operating Results					
Metered Water Sales	\$ 22,904,499	\$ 20,842,317	\$ 17,356,768	\$ 17,511,191	\$ 17,035,339
Metered Water Sales Per 1,000 Gallons—Cents	45.3	37.7	38.5	39.2	39.7
Metered Water Sales Per Customer	\$ 123.12	\$ 115.22	\$ 98.18	\$ 102.95	\$ 102.48
Water Service Operating Expense	\$ 16,507,398	\$ 14,459,112	\$ 11,221,704	\$ 10,113,785	\$ 9,900,938
Water Service Operating Expense Per 1,000 Gallons—Cents	32.6	26.2	24.9	22.6	23.1
Water Service Expense Per Customer	\$ 88.74	\$ 79.93	\$ 63.96	\$ 59.46	\$ 59.56
Financial Data					
Total Revenue	\$ 29,687,827	\$ 25,426,090	\$ 21,146,361	\$ 21,031,055	\$ 20,221,593
Total Operating Expense Before Depreciation	17,724,977	14,806,256	12,521,059	10,814,510	10,795,965
Depreciation Expense	5,379,781	4,902,532	3,941,575	3,659,343	3,397,802
Debt Service and Reserve Funds Requirements	6,517,591	4,033,880	4,323,225	4,338,251	4,688,546
Total Utility Plant	225,021,065	203,147,097	190,421,514	175,921,261	161,223,714
Accumulated Allowance for Depreciation	51,083,581	47,058,000	43,218,436	39,741,787	36,350,713
Net Additions to Utility Plant in Service	23,228,164	13,788,551	15,573,095	15,449,898	11,164,711
Inventory	1,367,219	1,249,072	1,141,485	1,054,874	1,047,789
Bonded Debt	66,615,000	52,495,000	49,275,000	51,145,000	52,950,000
Municipal Equity (including Reserves)	138,816,653	129,337,704	109,242,033	101,478,214	93,910,102
Interest and Sinking Fund	866,666	586,667	1,687,144	1,657,324	1,626,978
Reserve Fund	5,794,520	5,515,428	4,334,425	4,334,425	4,334,425
Improvement and Contingency Fund	2,574,753	1,507,824	1,119,724	1,534,749	1,222,047
Pledged Revenue	11,962,850	10,619,834	8,625,302	10,216,545	9,425,628
Debt Requirements as Defined by Bond Ordinance*	\$ 7,184,835	\$ 5,372,640	\$ 3,410,230	\$ 3,447,633	\$ 3,061,993
Times Debt Coverage	1.66	1.98	2.53	2.96	3.08
Other Statistics					
Water Pumped—Million Gallons	50,584	55,272	45,053	44,691	42,920
Number of Wells in Service	71	71	70	69	70
Average Daily Pumpage—Million Gallons	138.6	151.0	123.4	122.4	117.5
Maximum Daily Pumpage—Million Gallons	238.3	274.6	205.8	235.3	196.9
Maximum Hour Pumpage (Daily Rate)—Million Gallons	303.1	356.9	267.9	313.0	263.0
System Pumping Capacity—Million Gallons Day	625.3	595.1	560.6	531.4	528.6
Overhead Storage Capacity—Million Gallons	27.9	27.9	27.9	27.9	27.9
Total Storage Capacity—Million Gallons	86.8	79.3	79.3	74.2	74.2
Metered Usage—Million Gallons	40,133	43,457	36,781	37,417	35,946
Annual Rainfall—Inches	36.03	24.23	36.64	35.99	29.64
Customers at End of Year	188,969	183,084	178,707	172,185	168,004
Average Use Per Customer—Thousand Gallons	215.7	240.2	209.6	220.0	216.2
Miles of Main Installed	105.72	112.11	96.20	74.59	50.14
Miles of Main Replaced and Abandoned	21.70	19.61	30.86	24.97	17.17
Miles of Main in Place	2,698.04	2,614.02	2,521.52	2,456.18	2,406.56
New Services Installed	5,009	6,726	4,686	5,473	4,532
Fire Hydrants Installed	432	454	313	264	170
Fire Hydrants in Place	11,830	11,398	10,944	10,631	10,367
Number of Employees	746	772	744	731	708
Total Salaries and Wages Paid	\$ 10,477,578	\$ 10,148,931	\$ 8,750,490	\$ 8,125,376	\$ 7,394,855

*Prior to 1980 Average Annual Debt Requirement
Subsequent to 1979 Maximum Debt Requirement.

1976	1975	1974	1973	1972
\$ 14,946,415	\$ 12,415,320	\$ 11,975,104	\$ 10,806,880	\$ 9,316,272
40.2	33.9	31.3	29.4	23.6
\$ 91.62	\$ 77.23	\$ 75.38	\$ 69.23	\$ 61.02
\$ 8,388,403	\$ 7,685,479	\$ 6,719,545	\$ 5,379,281	\$ 5,081,987
22.6	21.0	17.6	14.7	12.9
\$ 51.42	\$ 47.81	\$ 42.30	\$ 34.46	\$ 33.29
\$ 17,535,093	\$ 14,423,374	\$ 14,009,345	\$ 12,868,775	\$ 11,071,491
9,066,997	8,197,928	7,136,442	5,578,621	5,348,196
3,232,917	2,963,509	2,608,735	2,453,633	2,309,440
3,773,547	3,277,700	3,565,984	3,244,683	2,386,573
150,690,065	143,745,863	135,820,915	120,176,666	107,010,819
33,153,409	30,582,968	28,155,596	25,884,430	24,227,819
7,978,028	8,734,952	16,247,665	18,931,293	14,654,749
1,073,151	1,118,249	1,220,954	692,303	586,752
47,585,000	41,045,000	42,475,000	43,690,000	30,780,000
87,644,100	81,759,410	78,668,343	72,652,227	66,842,868
1,450,408	1,276,594	1,266,241	1,130,932	934,082
3,656,992	3,343,364	3,332,205	3,018,049	2,552,000
1,774,395	1,549,229	2,459,271	3,652,026	4,299,021
8,468,096	6,225,446	6,872,903	7,290,154	5,723,295
\$ 3,223,709	\$ 3,226,449	\$ 3,221,214	\$ 3,199,125	\$ 2,432,264
2.63	1.93	2.13	2.28	2.35
37,154	36,588	38,246	36,699	39,476
67	67	65	64	60
101.5	100.2	104.7	100.5	107.8
171.9	158.9	190.0	153.1	165.6
231.5	202.8	277.1	220.2	239.8
470.2	443.6	443.6	441.3	433.7
22.9	23.1	23.1	23.1	22.9
64.1	56.8	56.8	51.7	50.6
33,015	32,875	33,800	30,347	33,003
39.13	25.67	37.00	52.28	31.48
164,454	161,829	159,700	158,033	154,153
202.4	204.5	212.8	194.4	216.2
35.16	122.32	124.73	102.54	78.58
8.96	32.91	34.10	25.25	22.92
2,373.59	2,347.39	2,257.98	2,167.35	2,090.06
2,701	2,715	5,354	7,503	4,797
172	462	525	362	329
10,197	10,025	9,563	9,038	8,676
704	722	709	682	642
\$ 6,568,457	\$ 6,011,639	\$ 5,690,074	\$ 4,991,929	\$ 4,512,077



A section of 60" water main pipe. The shovels give an idea of the size of the trench and the pipe.

Meeting Today's Water Needs

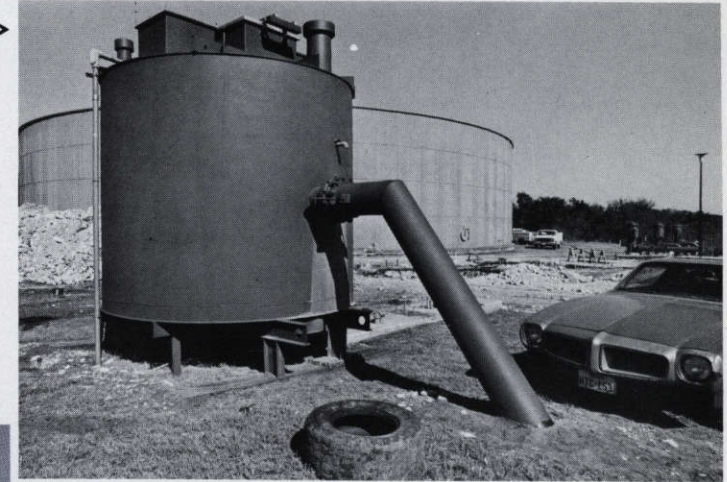
Keeping up with the growth of San Antonio is a never ending process. Anticipating and meeting San Antonio's growth patterns with adequate water service is something the City Water Board has been doing for over 55 years.

In anticipation of greater growth in the northeast part of the city development has proceeded at the Naco Pump Station. This station will provide two new wells that will ultimately have the capability of delivering 100 MGD by the year 2005. Currently the Naco Pump Station has the capability of delivering 5 MGD; however, that will double by May of this year and increase to 40 MGD by 1985.

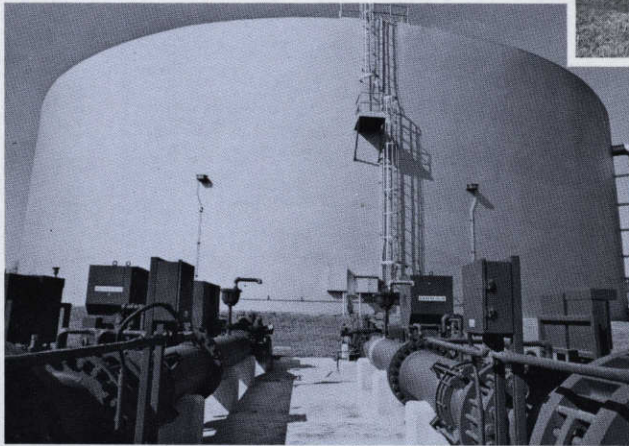
Work is also proceeding at the Market Street Pump Station where the installation of two new wells are scheduled to be completed by July of this year.

In addition high service pumps were added at the Bitters, Maltsberger, Randolph, and

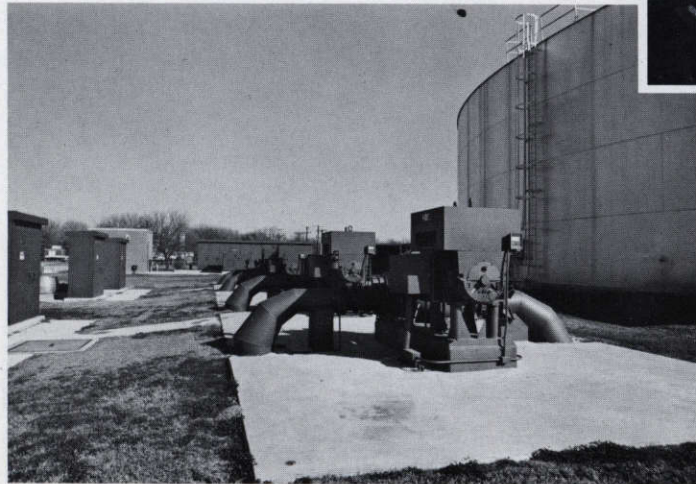
A portable booster pump was installed at the Bitters Pump Station to increase productivity until all of the new high service pumps are installed and operable.



The Maltsberger Pump Station nearly tripled its' capability with the addition of new high service pumps.



Wurzbach Pump Stations. The Bitters Pump Station previously had a 4 MGD capacity. With the addition of five high service pumps, two of which are still being installed, the capability will rise to 27 MGD with an anticipated increase to 42 MGD by 1990.



The addition of new high service pumps to the Randolph Pump Station was significant in increasing the Station's capability.

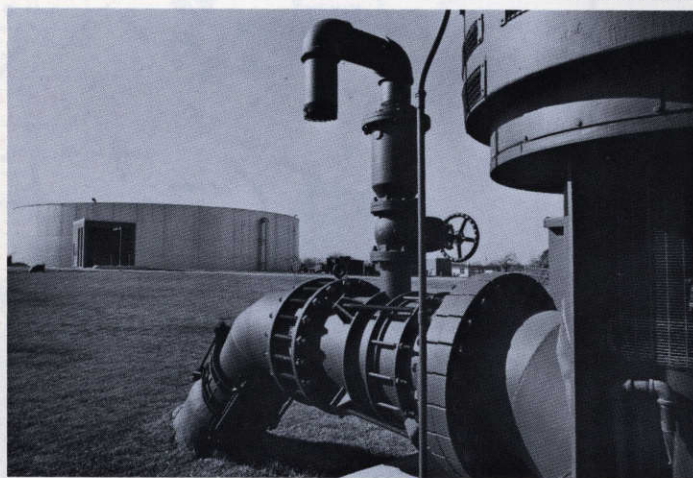
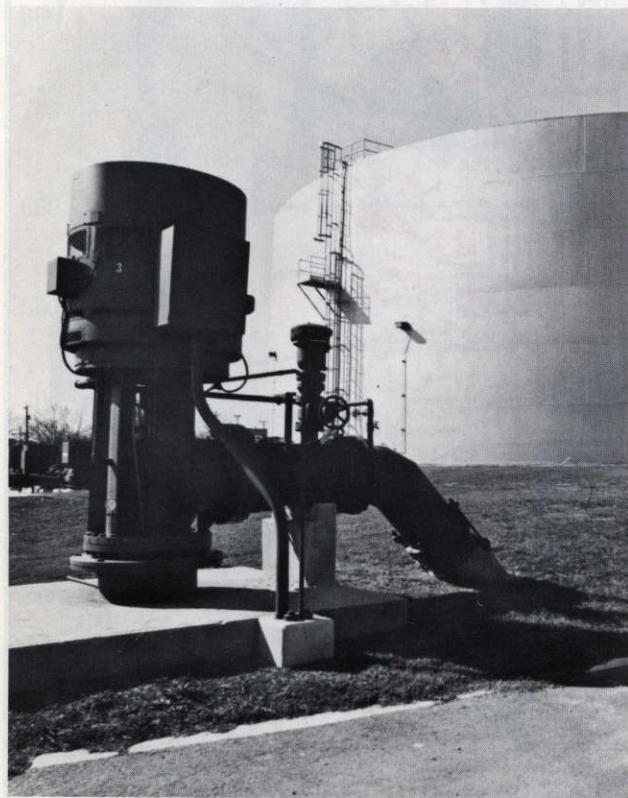
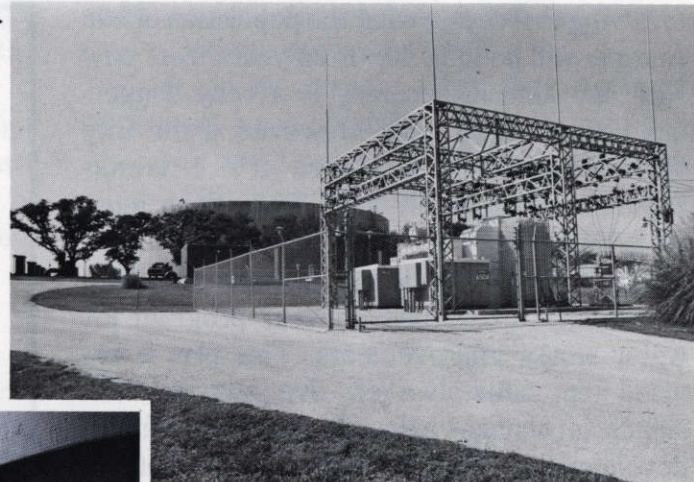
Workers are installing replenishment valves at the Bitters Pump Station. These valves will allow the tank to be filled by remote control.





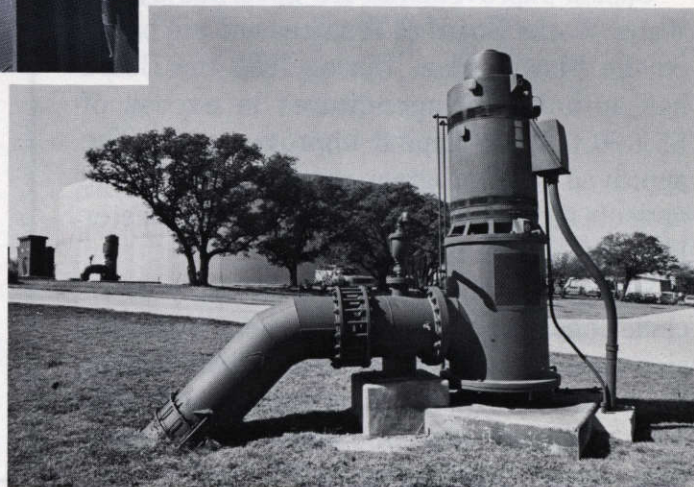
Pumps added to the Maltzberger Station nearly tripled its capability, increasing it from 15 MGD to 40 MGD with the intention of further expansion to 70 MGD by 1990. The Randolph Station added four pumps, increasing its capability from 9 MGD to 36 MGD, and the Wurzbach Station added two new pumps enabling its capability to rise from 52 MGD to 79 MGD with a projected increase to 103 MGD by 1990.

Electric substation and ground storage reservoir at the Wurzbach Pump Station.



Two of the numerous well pumps that are located throughout the system. (Left) Well pump number two at the Randolph Pump Station. (Below) Well pump number one at the Wurzbach Pump Station. These pump water from the ground and direct it to the storage tank for distribution throughout the system.

One of the three well pumps in operation at the Maltzberger Pump Station. The Ground Storage Reservoir in the background can hold up to 7½ million gallons of water.



Planning for Tomorrow's Demands

PLANNED CONSTRUCTION PROGRAM 1982-1985

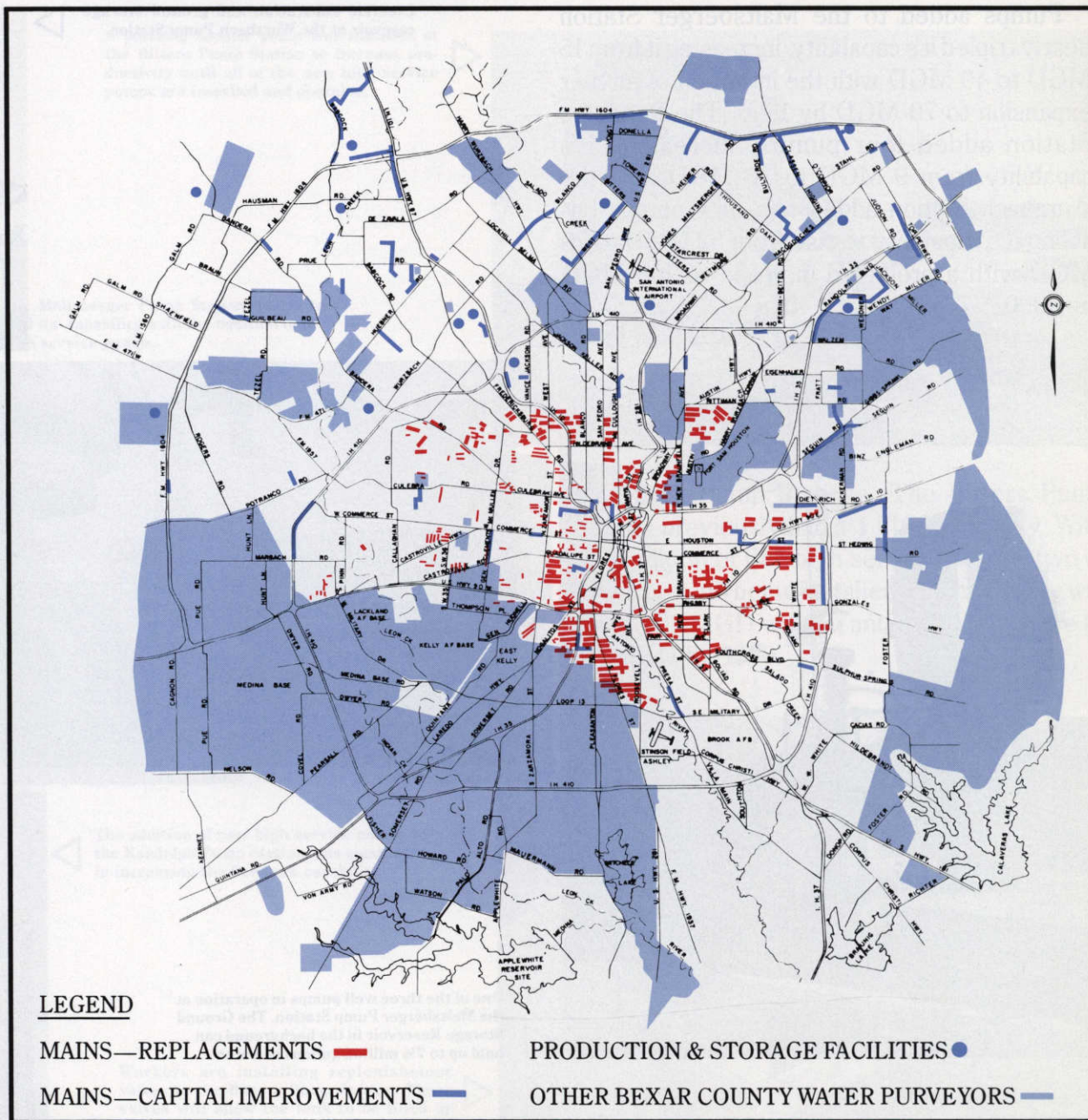
Trying to forecast what the population of San Antonio will be in 5, 10, or 25 years from now with any kind of accuracy is a very dangerous occupation at best. However, if the City Water Board is to serve its citizens-customers adequately such projections must be determined.

The City Water Board's Master Plan is a thoroughly researched 25 year program for water works improvements. This plan is revised approximately every five years to meet significant changes in San Antonio's growth and development. The population of San Antonio is estimated to reach 920,000 by 1990 and 1,120,000 by 2005. The Master Plan was revised in 1981 projecting water works improvements into the 21st Century.

Though San Antonio has grown in every direction, the major growth has taken place in the northern parts of the City, and this trend is expected to continue.

Capital improvements are governed by the Water Works Board of Trustees and are based on the Master Plan. During 1982 the Board has authorized expenditures in excess of \$5,000,000 for capital improvements. The approved 1982 program as well as projected projects through 1985 are shown on the Master Plan map to the right.

Significant projects in the upcoming year include construction of a 36 inch water transmission main along Jones-Maltsberger and Sandau Roads from the Maltsberger Station to Braniff. The program also includes water main transmission construction on Rochambeau and



Morril from Theo to Pleasanton Rd. There are also plans for a deep well and a 5 MGD high lift well pump at the Barbet Pump Station as well as the installation of a 10 MGD constant speed pump at the University Pump Station.

Proposed capital improvements for 1982-1985 call for expenditures of \$33,800,000 of

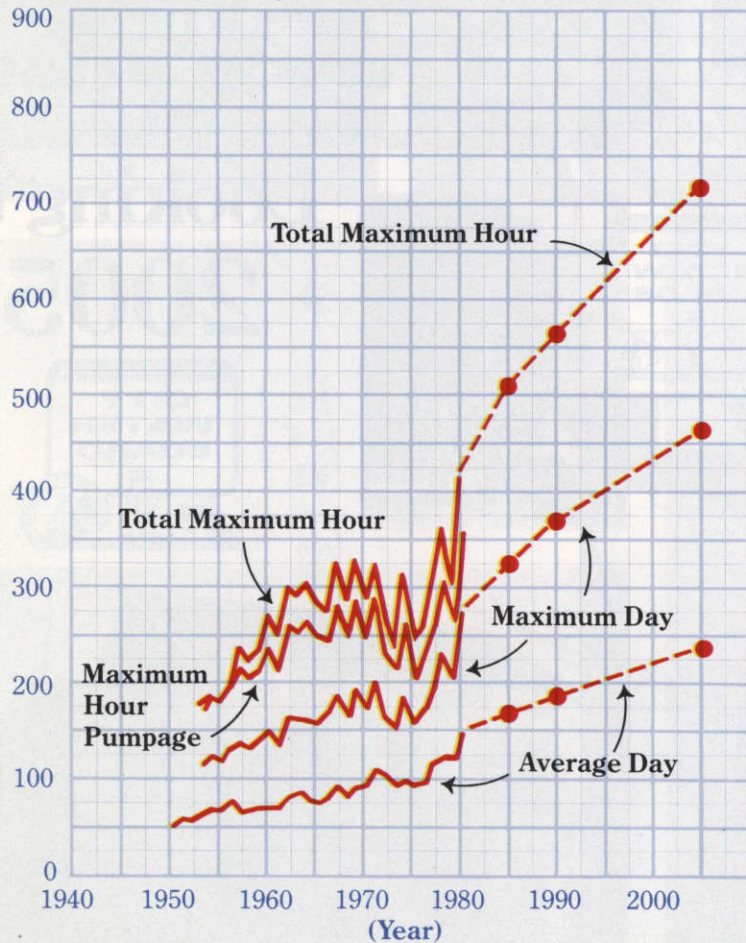
which \$23,505,000 will be used for major transmission mains and an estimated \$10,295,000 for pump stations.

Capital improvements for the 20 year period between 1985-2005 will approximate \$190,000,000 of which \$133,170,000 will be spent for major transmission distribution mains

and the balance for production facilities such as wells, pumps, and reservoirs.

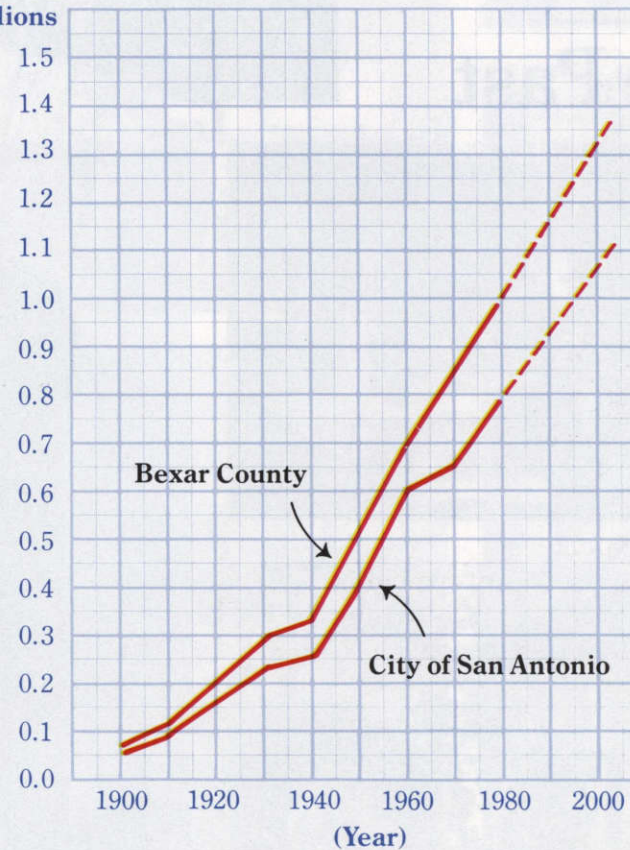
Capital improvements, while always subject to change, have taken into consideration San Antonio's need for surface water. Between 1982-1985, expenditures of approximately \$57,000,000 have been projected for this purpose.

**Water Use in
Million Gallons per Day**

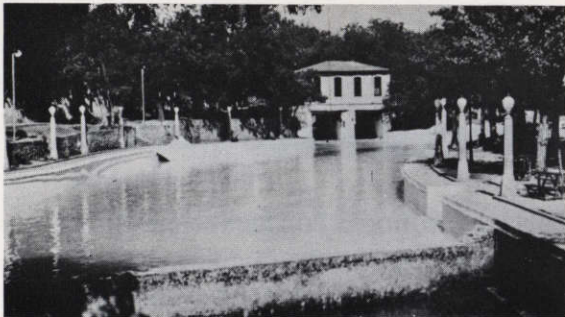


City Water Board
San Antonio, Texas
WATER USE
Black & Veatch
1981

**Population
in Millions**



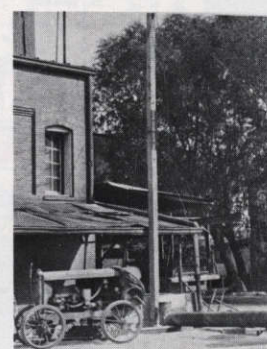
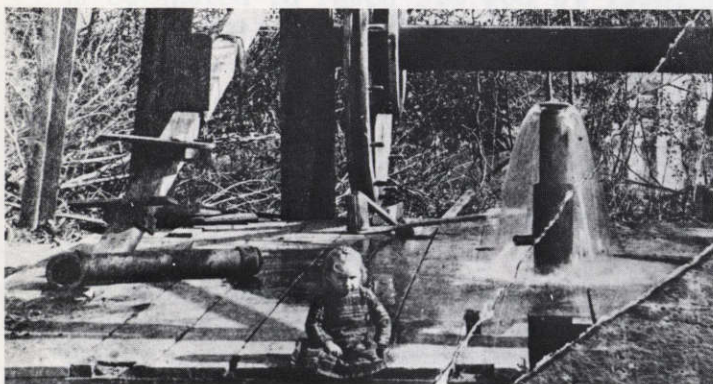
City Water Board
San Antonio, Texas
POPULATION
Black & Veatch
1981



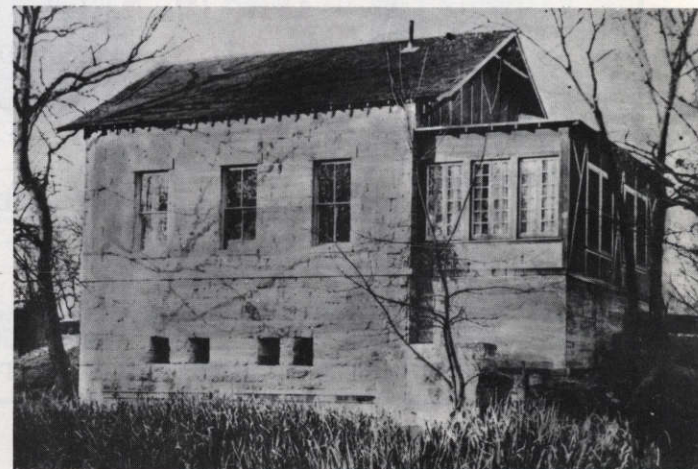
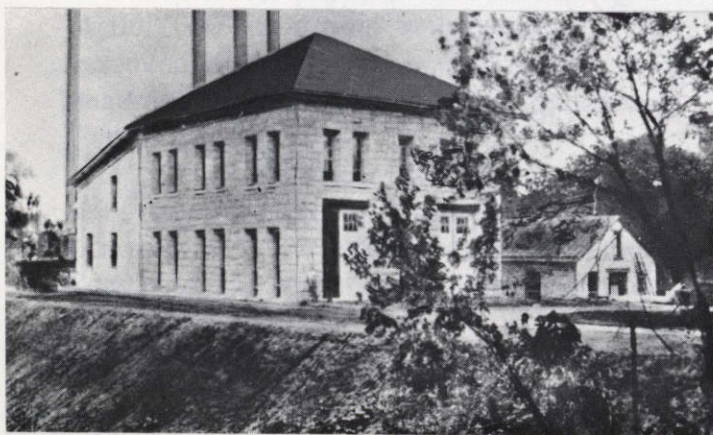
A Look



in the Past

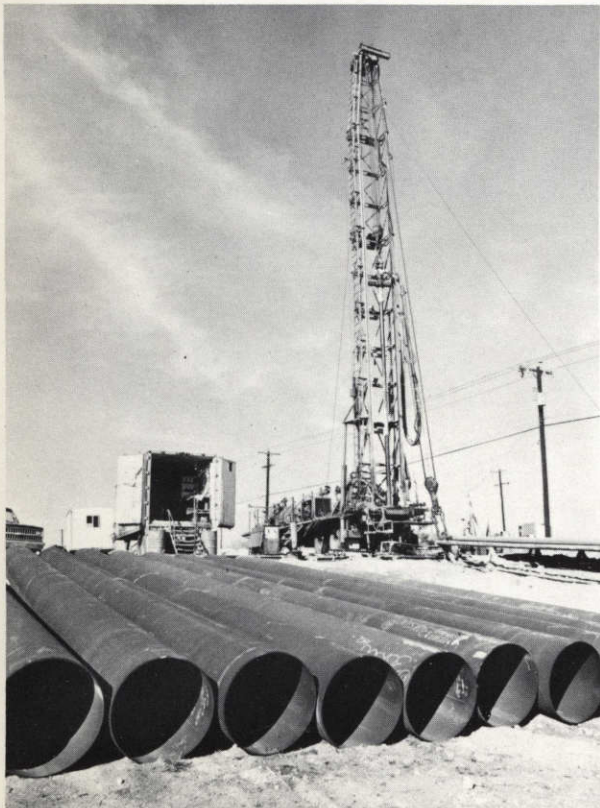


Looking to 2005

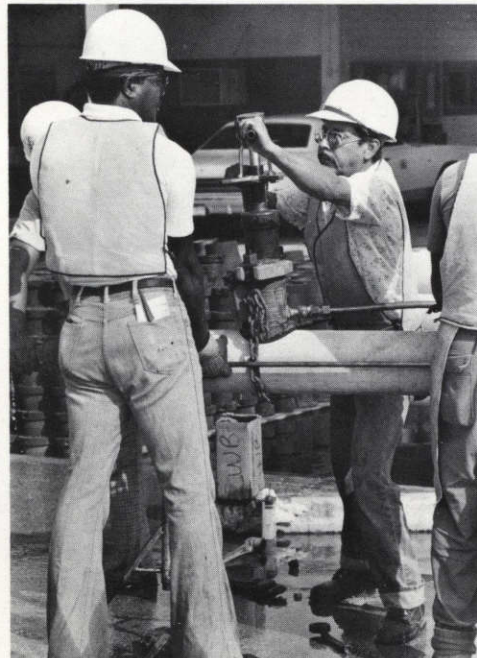


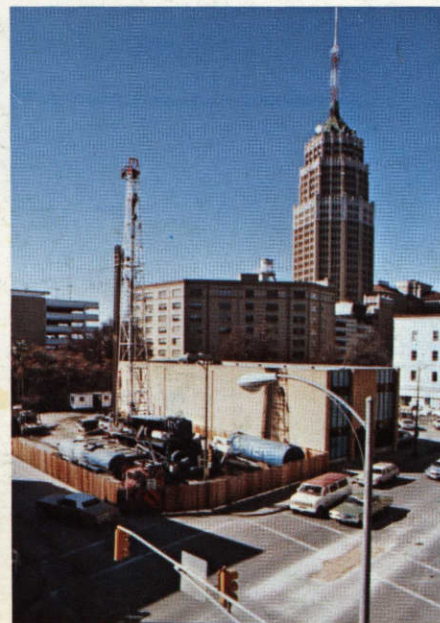


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