HISTORY OF WATER
IN THE
SAN ANTONIO RIVER VALLEY

by

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September 1970

INTRODUCTION

It is difficult to see the broad green valley at the edge of the Sonoran Desert today. The tall tan buildings and the asphalt usurp the green valley into a gray maze. The eye is diverted to the myriad of red, green and cloud colored lights that illuminate the streets and corners. Cars and trucks move across the Cottonwood Valley at great rates of speed. There is no time to look at the valley. It is lost in the maze of moving things.

Before the tall buildings and the thousands of miles of asphalt and concrete, the broad green valley inspired many men to many dreams. As one approached the valley from southwest on horseback or wooden wheel cart, it stood out in stark contrast to the dry naked brush country of the Sonoran Desert. Cool soft breezes whispered up the valley to the hills. The big green leaves of the Cottonwood trees rustled and twisted. A mirage of light and dark green seem to flash from the trees. The quiet Cypress trees grow tall and round, half standing in the clear water of the river and the springs. The quail and the Mexican dove flow from the tall, green rich grass. The river valley of San Antonio was untouched by mans' rage to crowd himself into cubicles of land and bricks. If you can see the valley for a brief moment the thought arises .... why do we always choose the most beautiful land to pave with asphalt? What is this torrid fascination for concrete?

Still the valley furnished disjointed splotches of former natural splendour and Spanish grandeur. When we look at these splotches of the past, we think simply....How beautiful! If the past is the key to the future, what will happen to our disjointed patches of the Lost Green Valley tomorrow?

> The old man could smell the many horses penned by the springs. He heard the cows up on the hill north of the springs. He could see that the soldiers had already come the day before. His long brown robes were sweat-stained and dusty as he rode into the camp. His cart creaked and bumped along the trail. The mules were tired. The old man was half-way into the camp before he saw one of the other three missionaries that had come with the soldiers. The young missionary approached the old man and addressed him with respect, "Welcome to the camp Father Olivares, I hope your journey has not been tiring," he said without smiling. Fr. Olivares thanked him politely for his greeting, asked what day it was. The missionary paused before he told the old man that it was the first day of May in 1718 year of our Lord. The old man did not like his disrespect. He rode on to the creek to water his mules ignoring the soldiers. The Spring evening was hot and the flies were bad from the horses. The old man was weary with fatigue. A light breeze whispered in the big green leaves of the Cottonwood trees along the stream when it began to get dark. The old man laid his head down on the brown flour sacks and could see the stars. His eyes closed as he heard the cool water tumbling slowly over the white limestone rocks. The Cottonwood trees rustled. It was cool. He had no thoughts that he would later be named the founder of the City of San Antonio.

ACEQUIA SYSTEM

San Antonio was first conceived in 1691. Its gestation period lasted 27 years and was finally born in 1718 with the coming of the old man, Friar Olivares. Some forgotten writer once wrote in the San Antonio Express in 1893, "Water and not land was the commodity which in olden times in and around San Antonio, was bought and sold." It was water and the magnetism of the broad green valley that inspired Friar Olivares to urge the Viceroy of New Spain to establish a mission on the banks of the San Antonio de Padua. Friar Olivares had a great interest in water. Before coming to the banks of San Antonio River he had a mission below the Rio Grande that lacked abundant water. His discovery of abundant water in the broad green valley led to his abandonment of his Sonoran Desert Mission and the establishment of the Mission San Antonio de Valero (The Alamo) in the Spring of 1718. Thus it was water that ultimately controlled the destiny of San Antonio.

Missions:

Friar Olivares' obsession and interest in water did not stop with the river or the springs. He immediately began to construct irrigation ditches (Acequias) to raise vegetables and grains for

the new Mission. The exact chronology of the ancient Acequias is lost in the haze of history. However, it is assumed that the several irrigation ditches were built and abandoned before the main Acequia system was finally completed. The location of the Missions controlled the location of the final system of Acequias. The location of the Alamo was established in 1724. Mission San Jose was established in 1720. In 1729, three more Missions were moved from East Texas to San Antonio. Thus by the eleventh year, the main system of missions had been established in San Antonio.

Acequias:

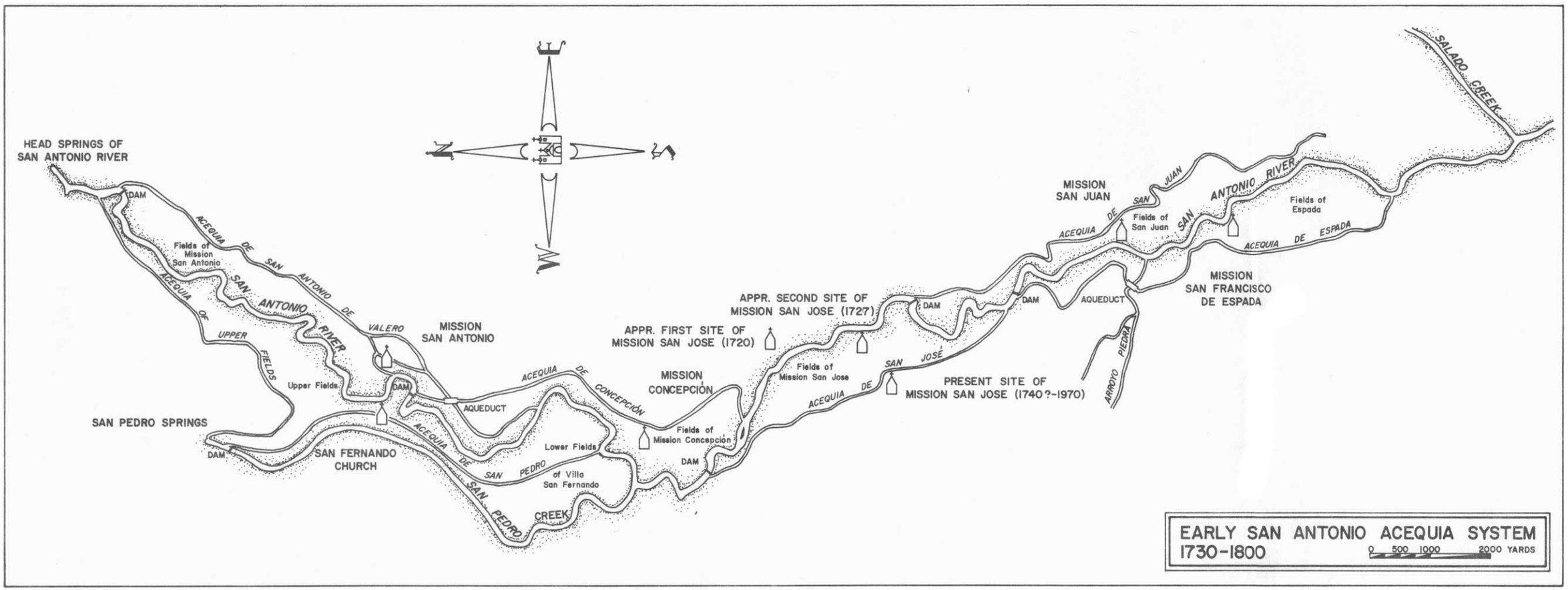
The history of the Acequia system is vague but it is believed that the first attempt at water use and control for a major portion of the land began in 1729 with the construction of the Pajalache or Concepcion Acequia (Figure 1). The Acequias were built to serve the water needs of the five Missions along the San Antonio River. Each Acequia was constructed in such a manner that running water was obtainable within the Mission grounds. The water was used for drinking and cooking as well as irrigation. Each Mission controlled a certain portion of land bounded on one side by an Acequia and on the other by the river. The area was known as the "Fields of Mission Concepcion" or the "Fields of the Mission San Antonio." The land, of course, was totally claimed by the King of Spain. The Acequia system has a remarkable history of use. The

system was in use for more than 200 years furnishing water for drinking, bathing, cooking, and irrigation. It is a sad commentary that more of this "Spanish splendour in the wide green valley" is not preserved today. It would be a valuable asset to the City.

The Acequias were constructed roughly along the land contours at a minimum fall so as to encompass a maximum of irrigable land. A dam was built across the river to raise the water level to the ditch. The Acequia followed a parallel course to the river and eventually re-entered the river at a downstream position. Rows of cactus plants were placed along either side of the Acequias to keep cattle and other free wondering livestock away from the water as well as the fields. The purity of the water was fiercely protected in the early stages of the Acequia System.

It is said that levelling instruments were fashioned out of green wine bottles half filled with water. "The bottle was laid on its side, and when the water came to rest, a level line was sighted along the water, and a measurement made from the line down to the ground that would provide the 1 1/2" fall per hundred feet." It can either be said that wine bottle levels were extremely accurate, or the Mustang grape wine was extremely good.

In 1745, time was measured in trickles. There was no need to run faster than time. There was no desire to compete with time. Time was tenuous, it lacked substance, it lacked concern.


HEAD SPRINGS OF SAN ANTONIO RIVER
DAM
ACEQUIA DE SAN ANTONIO DE VALERO
Fields of Mission San Antonio
ACEQUIA OF UPPER FIELDS
SAN ANTONIO RIVER
Upper Fields
DAM
MISSION SAN ANTONIO
SAN PEDRO SPRINGS
DAM
SAN FERNANDO CHURCH
ACEQUIA DE SAN PEDRO
AQUEDUCT
ACEQUIA DE CONCEPCIÓN
Lower Fields of Villa San Fernando
SAN PEDRO CREEK
MISSION CONCEPCIÓN
Fields of Mission Concepción
DAM
APPR. FIRST SITE OF MISSION SAN JOSE (1720)
APPR. SECOND SITE OF MISSION SAN JOSE (1727)
Fields of Mission San Jose
ACEQUIA DE SAN JOSÉ
PRESENT SITE OF MISSION SAN JOSE (1740?-1970)
DAM
DAM
AQUEDUCT
ARROYO PIEDRA
MISSION SAN JUAN
ACEQUIA DE SAN JUAN
Fields of San Juan
SAN ANTONIO RIVER
Fields of Espada
ACEQUIA DE ESPADA
MISSION SAN FRANCISCO DE ESPADA
SALADO CREEK
EARLY SAN ANTONIO ACEQUIA SYSTEM
1730-1800
0 500 1000 2000 YARDS

Dams and aqueducts were built with great care. Limestone rocks were thrown onto hot open fires. Then the grey rocks were ground to a fine white powder. The lime powder was made into a waterproof mortar with the use of goat's milk. Any organic fat will serve as a waterproofing agent in mortar, but the goats were plentiful and handy. Goat's milk mortar does not dry as quickly as ordinary mortar but it did not matter. The mortar was allowed to dry slowly, stone by stone.

If you stand at the Espada Aqueduct in the early evening and let your imagination wander back to 1745, you can almost smell the lime fires glowing nearby. However, the imagination is quickly brought forward and into focus from the stench of the sewer polluted stream that flows beneath the aqueduct. The tufts of grass and green moss that cling to the stone sides of the aqueduct add credence of time to the ancient structure. It is the only remaining Spanish aqueduct in the United States. The arched aqueduct crosses a small creek, the Arroyo Piedra. Two of the old Acequias still flow today. Both are located south of the City on both the east and west banks of the River. The Espada Acequia flows on the west side and the San Juan Acequia flows intermittently on the east side. More recent additions have been made to both Acequias but they remain essentially as they were in the 1700's. The San Juan Acequia is now designated as the San Juan Ditch Company and each of the properties it crosses own a proportionate share of the company.

The remaining portions of the ancient Acequias are still used to irrigate pecan groves and vegetable gardens. It should be a policy of the City and Texas Water Quality Board to keep the remaining Acequias free of pollution. Both of the dams for the San Juan and the Espada Acequias are above the Rilling Road sewage plant but the Acequias are still in danger of pollution from certain industries that are located along the ancient Spanish watercourses. The City would do well to promote portions of the ancient Acequias into parkways or footpaths.

SAN ANTONIO RIVER

The Payaya Indians called the river that sprang from the ground at the foot of the hills, "Yanaguana." The Indians that settled along the headwaters of the Yanaguana River were unaware that Friar Damian Massanet and Domingo Texan de los Rios had given the name San Antonio de Padua to the river in 1691. Another name has been attributed to the river pronounced in Indian as "Chem-quem-ka-ki" which means "Old-man-coming-home-from-the-lodge." The origin of this name is unknown.

Santa Anna was a disgruntled gentleman in 1813. He portrayed the San Antonio area as being a hot, dry land full of insects, snakes and preying eagles. When he rode into Cottonwood Valley, he was amazed that the springs and irrigation from the river turned the area into a "solid flower garden" in the middle of a desert.

In 1873, Sidney Lanier was inspired to write about the river while sitting on the balcony of the Menger Hotel ..."when dreams come whispering down the current among the willow sprays."

The descriptions, the simplicity of a clean water environment of the past are in stark contrast to the conditions of today. Leaping ahead to the present and the future in this story, it can be said that the San Antonio and AACOG region have gone through four major eras of water. The cyclical nature of abundance and paucity is outlined on the following page.

Table 1

Data		Supply Situation
1718-1800	-	Abundance of surface water.
1800-1888	-	Rationed supply of surface water.
1888-1970	-	Abundant supply of subsurface water.
1970-	-	Rationed supply of subsurface water, no surface supply.

The first two water eras were based upon the springs and the San Antonio River. The Missionary period which actually ended for all practical purposes around 1800 was also the end of the first abundant supply of clean water.

As the stream meandered down the gently sloping Gulf Coastal Plain, it eroded through the green rolling hills near the present town of Goliad. The grass was belly high and waved luxuriously across the land. In 1749, the Mission Espirutu Santo was moved to the river bank near Goliad from Matagorda Bay. The terrain did not permit the development of irrigation as it did in the San Antonio area. The padres of the Mission decided to utilize the lush grass to build a cattle empire for the Catholic church and the King of Spain. They developed the first large cattle ranch in Texas, owning more than 15,000 head. They supplied beef for Louisiana, Texas, and portions of northern Mexico. To protect their large cattle operation, the Presidio de La Bahia was constructed in 1749 with walls of stone three to five feet thick. The walls still stand today. The river supplied the water needs for this first large cattle operation in Texas. These early missionaries were truly men of dreams and deeds and the river was the trunk of their life.

The link between the San Antonio Missions and Mission Espirutu Santo was served by two roads. One road went down the east side of the river and the other followed the west side. The wet weather road was on the west side and the dry weather road was on the east side. The river was frequently crossed near the present site of Falls City in Karnes County. The crossing was known as Conquista Pitaias Crossing later shortened to Conquista Crossing. The well known crossing was established about 1739, ten years before Espirutu Santo was moved from Matagorda Bay to Goliad. It is believed that Conquista Crossing was principally established to cross from one road to another that paralleled the river. The name was derived from the conquest (Conquista) of the Pitaias Indians. The roads were used during the Missionary period to round up the Indians that lived along the San Antonio River and introduce them to the Missionary life. The crossing was used up to the time that a concrete bridge was built to serve a Farm to Market Road from Falls City to Campbellton.

At the end of 1800, the people were changing, the land was changing. A few early Anglo-American explorers from Tennessee, Missouri, and Kentucky were seen loitering around the Military Plaza sizing the land and the people. The full thrust of their peaceful invasion into Texas would not be felt for another twenty years. San Antonio was still endowed with plentiful clean water but the attention that the Acequias received under the direction of the brown-robed padres, no longer existed. The era was coming to a close.

Thunderous words and actions were beginning to stir inside Mexico near the year 1810. "Independencia" was the word that Spain heard from across the ocean and independencia is what happened. On the eve of the Mexican revolution (1820), Moses Austin was in San Antonio appearing before Governor Antonio de Martinez, asking his permission to establish a colony of three hundred families in Texas.

The town or villa of San Antonio had grown to the point in the early 1800's that the river and the springs were no longer within footpath distance of the dwellings. The Aquadores or Mexican water carriers supplied the household water with buckets hanging precariously from shoulder yokes. Water then became a commodity for San Antonio. It was no longer the free gift of nature, although this ancestral thought still glows in the minds of people.

The deterioration of the water quality of the Acequia System had come to the point in 1830 that certain public regulations were needed. San Pedro Ditch water was designated solely for drinking and cooking, San Pedro Creek and the San Antonio River were left for bathing or laundry. It was prohibited by law to dump refuse in the San Pedro Ditch and fines were imposed upon offenders.

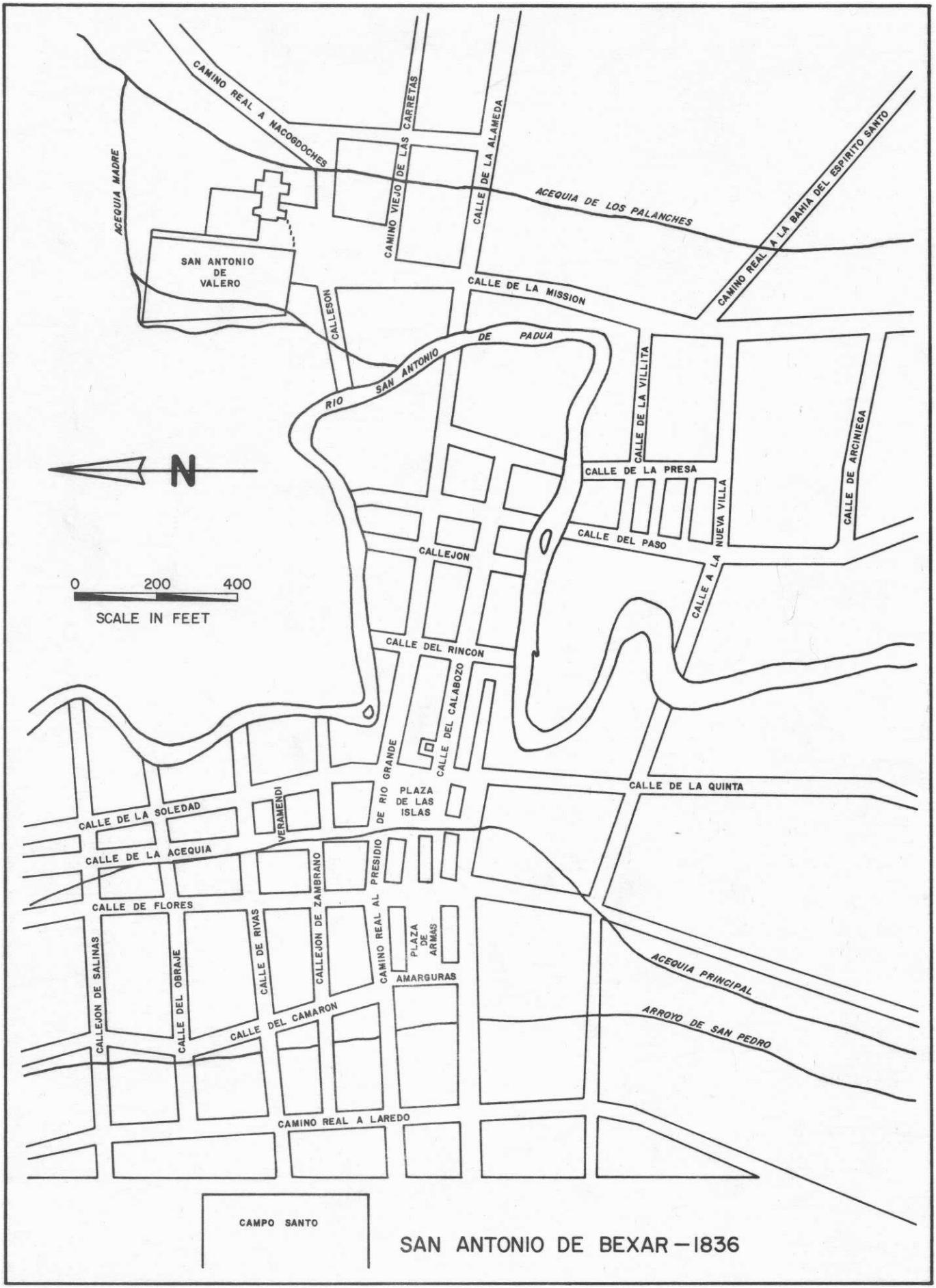
Mrs. Mary A. Maverick has left an interesting historic needle-point account of life along the San Antonio River in the 1800's... "Bathing at our place had become rather public...so we ladies got permission of old Madam Terrino...to put up a bath house on her

premises some distance up the river from Soledad Street...Here between two trees in a beautiful shade, we eent in a crowd each afternoon at about four o'clock and took the children and nurses and a nice lunch, which we enjoyed after the bath. There we had a grand good time swimming and laughing and making all the noise we pleased." Life and the river have become somewhat more complicated since then.

Water law and water ownership along the San Antonio River took a sudden lurch away from Catholic domination in 1836. The new Texians decided that Mexico was not the country to belong to and they revolted. Suddenly the victory surpassed all existing water rights and laws. The river and the land along the river now belonged to the town of San Antonio and the new Republic of Texas. The public land was sold and deeded to the new Texians. Prior to 1836, the Mexican government had secularized the Missions and some of their lands were divided among the citizens. This occurred from about 1820 to 1824. The boundaries of the City of San Antonio were first established in 1837. The City received its second historic charter at that time from the Republic of Texas. The first charter was granted in 1733 by the King of Spain. Land was selling at the time of the Republic for 20 per cent down and 8 per cent interest for fifty years. The total price of one parcel of land along the river near Brackenridge Park was $820 for 11 acres or about $75 per acre.

When the City was chartered in 1837, it was specified that two Ditch Commissioners be elected for the management of Acequia Systems on the east and west sides of the River. The Acequias were accepted as an adequate public utility. However, many shallow wells and cisterns were constructed from the period between 1800 and about 1888. The people were accustomed to making applications for water rights by the first of April each year. They were placed on the "water list" by paying an irrigation tax which permitted specified quantities of water at certain hours of the day. Water rationing had become a reality in the first third of the 1800's. The strain on water quantity was inevitably accompanied by a loss of quality. Water took the brunt of the blame for a cholera epidemic in 1866. As in all historic shifts, the spark of an event began the fire of change. Civic minded men began talking of organizing a water company in 1866. The suggestion fell on deaf ears. The public was, as usual, apathetic.

There is an oft repeated story about a town character that must be included for completeness. Mrs. Higginbotham had just finished her supper dishes after a very exciting and terrifying day. A bloody Indian fight within the outskirts of the City had just occurred. It was the day of March 19, 1840. Mrs. Higginbotham had invited Mrs. Maverick over for the evening. Mrs. Maverick relates the following tale from her Memoirs...."An eccentric


CAMINO REAL A NACOGDOCHES
CAMINO VIEJO DE LAS CARRETAS
CALLE DE LA ALAMEDA
ACEQUIA MADRE
ACEQUIA DE LOS PALANCHES
CAMINO REAL A LA BAHIA DEL ESPIRITO SANTO
SAN ANTONIO DE VALERO
CALLE DE LA MISSION
CALLESON
RIO SAN ANTONIO DE PADUA
CALLE DE LA VILLITA
CALLE DE ARCINIEGA
N
CALLE DE LA PRESA
CALLE DEL PASO
NUEVA VILLA
CALLEJON
0 200 400
SCALE IN FEET
CALLE A LA
CALLE DEL RINCON
CALLE DEL CALABOZO
RIO GRANDE
CALLE DE LA QUINTA
PLAZA DE LAS ISLAS
CALLE DE LA SOLEDAD
VERAMENDI
CALLE DE LA ACEQUIA
PRESIDIO
CALLE DE FLORES
CALLEJON DE ZAMBRANO
CAMINO REAL AL
CALLEJON DE SALINAS
CALLE DEL OBRAJE
CALLE DE RIVAS
PLAZA DE ARMAS
AMARGURAS
ACEQUIA PRINCIPAL
CALLE DEL CAMARON
ARROYO DE SAN PEDRO
CAMINO REAL A LAREDO
CAMPO SANTO
SAN ANTONIO DE BEXAR — 1836

character of those days was a Doctor Weidemann.... a Russian scholar and naturalist and an excellent physician and surgeon. He was a highly cultivated man and spoke many languages. He lived on the old Chavez place on Acequia Street. I remember that on the night of the Indian fight of March 19, 1840, I visited Mrs. Higginbotham. While I was there, Dr. Weidemann came up to her grated front window and placed a severed Indian head upon the sill. The good doctor bowed courteously and saying: 'With your permission, madam' and disappeared. Presently he returned with another bloody head, when he explained to us that he examined all the dead Indians and he had selected these heads, male and female, for the skulls as well as two entire bodies to presume as skeletons. "He said, 'I have been longing exceedingly to secure such specimens, and now ladies, I must get a cart to take them home.' Dr. Weidemann had taken an active part in the fight and done good service mounted on his fine horse, and now he was all begrimed, bloody and dirty - the result of his labors as warrior, surgeon and scientist. He soon returned with the cart loaded with his magnificent specimens, took the two heads from the window and departed." ...

"That night Doctor Weidemann stewed the bodies in a soap boiler and when the flesh was completely desiccated, emptied the cauldron into the Acequia. Now this ditch supplied the drinking water generally for the town, it being understood that the river and San Pedro Creek were reserved for bathing and washing. There was a city ordinance to this effect coupled with a heavy fine."

"On the twenty-first it dawned upon the dwellers upon the banks of the ditch that the doctor had defiled the drinking water and that probably they had taken in particles of Indian in their fluid. The people, very properly, gathered in indignation and a mob rushed to the mayor's office. The men talked in loud and excited tones and the women shrieked and cried .... Many thought they were poisoned and would die. Doctor Weidemann was arrested and brought to trial. The people overwhelmed him with abuse and called him 'diablo,' 'demonio,' 'sin verguenza' and so forth. He took it all calmly, assured them the Indians had all sailed by in the night, paid his fine and went away laughing."

The annexation of the Republic of Texas into the Union in 1845 did not turn the events of San Antonio to any appreciable degree. Neither did the Civil War which was soon to follow. The only good thing about the annexation of Texas into the Union was that Texas reserved the right by treaty to secede from the United States. That right and the treaty still exist.

The public slowly became aware that a public water works was needed. It was suggested in 1873 and again in 1875 by leading citizens. Through a series of waxing and waning discussions, it was finally decided on April 3 of 1877, that the City of San Antonio would have a water works. The original contract was let to J. B. Lacoste and Associates. The contract called for J. B. Lacoste and Associates to build and maintain a

water works. The entire project was to be finished within fifteen months. The agreement was to last twenty-five years. A reservoir was constructed on a high hill at the eastern end of Mahncke Park. The reservoir was near the present site of the San Antonio Garden Center on North New Braunfels between Parland and Funston streets. An ingenious method was devised to pump the water from the river up to the reservoir. A raceway was built from the head springs of the river to a pump house downstream. The difference in elevation from the springs to the pump house was about ten feet. The water falling from the springs to the pump had sufficient force to operate a large turbine which was directly connected by gears to the plunger of a large pump. The pump forced the water up the hill to the reservoir. The water was then distributed by gravity through a system of the company's mains. The pump house still remains in Brackenridge Park.

The citizens of San Antonio were reluctant to patronize the new water works system. Prejudice prevailed and the citizens were slow to appreciate their new means of water supply. The habits of 159 years were difficult to change. The officers and stockholders of the new company were dismayed by the public disinterest. Mr. Lacoste and Associates decided that the financial burden was too much to endure and sold their interests to the famous Mr. George W. Brackenridge in 1883.

Mr. Brackenridge became President of the stock held Water Works and became a tireless advocate of the business. For the first seven years the officers of the company worked without salaries. Mr. Brackenridge traveled over the country at his own expense securing contracts for pipe and material. Mr. Brackenridge had a serene faith in the City and being a banker he advised his company to spend many thousands of dollars until by 1890 the City had a vast network of "iron pipes."

The Judson family in San Antonio are best known for their candy company. Judson's candies are well known throughout the southwest. However, the Judsons began as farmers in this area. John William Judson and M. C. Judson, being enterprising young brothers, decided to buy a water well rig and form the Judson Brothers Well Drilling Company. One of their first jobs was to drill a well for Mrs. H. D. Kampmann at her country home four miles east of San Antonio. The Kampmann family owned the Lone Star Brewery and could afford to drill a relatively deep well. The Judson rig could only go to 650 feet, but it was deep enough to strike the first flowing water from the Edwards Formation in 1888. This ended the dependence on the San Antonio River as the prime water supply for the area. It also ended the first era of water rationing. Much excitement was created when the well was completed. The beer and the water flowed in about equal proportions. One of the many visitors to the new well was George W. Brackenridge, President of the San Antonio National Bank and President of the Water Works Company.

EDWARDS AQUIFER

George Brackenridge was mightily impressed with the flowing well. He made a few inquiries and immediately entered into a contract with the Judson Brothers to drill a well at the Country Club Grounds (Brackenridge Park) near the first pump station. He instructed the Judson Brothers to drill the well as deep as the rig would permit. The water well was drilled to the Edwards Aquifer and the water rose to within 15 feet of the surface, but it was considered a failure because it did not flow. A second attempt was planned at the second pump house which was about a mile down the River. The second well flowed sufficiently to meet the needs of the reservoir.

Mr. Brackenridge was not to be denied. He continued to press for more wells. Finding the rig that the Judson Brothers owned too small to drill to greater depths he gave them a letter of credit. His instructions were to take the letter and go to Pennsylvania where they were to obtain a "Super Rig" used in the oil fields. The Judson Brothers came back with a rig that would go to twenty-five hundred feet. The proud rig was transported to San Antonio by rail and it was erected high on the hill by the reservoir. A new well was drilled to a depth of 2,496 feet which furnished an abundance of water for the reservoir. This pleased Mr. Brackenridge so much that he ordered the rig moved to the

Market Street location. Several wells were drilled at this location which "gushed millions of gallons per day." The City of San Antonio was then served by six wells which produced water from the "crystalized Edwards Lime formation." The population of around 18,000 in 1890 had a secure and ample water source for years to follow. One of the Market Street wells flowed water out of an 8-inch pipe twenty feet high. Pieces of limestone "as large as a man's head" blew out of the well with the water. The excitement that such a well generated electrified the community. This particular well flowed about 3,000,000 million gallons of water per day. The water in the Edwards today is produced from about 4,000 wells in the AACOG region.

The ensuing years from 1890 to 1900 viewed a great period of change. The abundance of new water in the area may have triggered a rapid population increase from a figure of 18,000 in 1890 to 53,000 in 1900. Chapter after chapter could be written about this decade. The Medina Dam was first conceived, the sewer system was laid out, the Belgian farmers began to irrigate from the Edwards, the population exploded. Although it has not been said, much of this rapid change was brought about by the discovery of abundant water in the Edwards Aquifer.

This same pattern of bustling business and bursts of social energy can be seen at any point in time when an abundant natural resource is discovered. At the same time, the Edwards Aquifer was discovered in the San Antonio area, oil was discovered at "Spindle Top" near Beaumont. The same pattern of social adjustment was taking place in that area of Texas.

The following is an account written by Moses C. Judson: "Shortly after this, 'Spindle Top' blew in and the drilling fraternity also blew their top. Judson Brothers almost caught the fever and were on the eve of shipping the Rig to Beaumont when Mr. Brackenridge phoned M. C. Judson to come over to see him. He was then living in the present San Antonio Loan and Trust Company building. He advised us to stay away from the oil field as we were not familiar with the geology of that part of the state, and we probably would lose all we had made by going down there. M. C. Judson decided he was right and so advised his brother. We left the Rig at the ranch and both brothers accepted positions with the Water Works Company under Mr. Brackenridge, and the firm of Judson Brothers was dissolved." Moses also wrote at the beginning of his story: "There are many difficult situations in life, but writing one's history tops them all. There must be a beginning; the end will take care of itself." At the age of 89 he wrote: "That sense of Humor requires a bit of stretching to enable one to write his own Obituary, yet who may do it better than he who has trod the trail?"

Even after reading Mr. Judson's memoirs, it is doubtful that he realized that the Judson Brothers Water Well Drilling Company had discovered one of the most prolific artesian aquifers in the world. The first 650-foot rig turned San Antonio onto a new course of history.

Many stories appeared in the San Antonio Express in the 1890's extolling the abundance of the newly discovered water. In two separate articles in January and June of 1893, it was reported that the new water supply was "unlimited." In 1891, an editorial appeared recommending the "diggin" of wells around San Antonio instead of drinking tank water. It wasn't until 1911 that the first warning was sounded that the Edwards Aquifer was abundant but not unlimited. These warnings are heard more frequently as we approach the decade of 1970. To not heed these warnings will mean the end to the time of the magnificent Edwards Aquifer. "Abundance" was the word in 1900 - "Conservation" is the word in 1970. Looking back at each cornerstone of history in San Antonio, it is obvious that each turn was largely based upon water. Water will also make the historic cultural turns in the future. The decisions we make now concerning water will mold the future of this area for better or worse. Water has been our silent guide - a fact that too few people realize.

First Sewer System:

When it was realized in the early 1890's that the Edwards Aquifer was going to supply a plenitude of water, talk began to flow on the merits of a sewer system. An increasing population triggered by the discovery of abundant water also brought with it the problem of waste water. There was no early concern about how much water it would take to carry away the wastes of a city.

An editorial was published in 1892 in the San Antonio Express calling for a sewer system. In 1893, George Paschal, being the District Attorney, decided to run for Mayor of the City. His platform was based upon progress and prosperity. He waged an active campaign for a $500,000 bond issue for sewer construction. He won the election and the bond issue was approved. He then became known as the "father of San Antonio's sewer system." He did not live to see his aims come to completion. He died in office on September 6, 1894, one month after the City Council adopted an ordinance for the construction of the first sewer lines in San Antonio. The City Council Members at the time were: Albert F. Beckmann; Joe Beckmann; J. A. Dougherty; C. B. Hice; William Hoefling; Henry Limburger; Erich Menger; S. G. Newton; F. W. McAllister; W. L. Smith; and Nelson Mackey. Some of the names still command a political niche in local governmental affairs. The bonds were issued for a period of 40 years at 5 per cent interest and, in order to meet the payments of interest and

principal, a tax of 12 cents per $100 valuation was levied by the City Council on June 1, 1894. Thus the beginning of waste water management through a system of outfall lines began 176 years after the City was founded on the banks of San Pedro Springs. The following table demonstrates the growth of the sewer system since 1900:

Year		Population	Area	Miles of Sewers
1900		53,321	36 sq. mi.	25.00
1910		96,617	36 sq. mi.	117.57
1920		161,379	36 sq. mi.	282.10
1930		231,542	40 sq. mi.	453.66
1940		253,854	40 sq. mi.	522.14
1950		408,442	72 sq. mi.	937.86
1955		523,379	154 sq. mi.	1,201.36
1960		587,718	160 sq. mi.	1,486.13
1962		669,859?)	160 sq. mi.	1,585.00
1965	trend	683,085?)	176 sq. mi.	1,681.49
1966	fore-	705,744?)	182 sq. mi.	1,736.00
1970	cast	774,468?)	250 sq. mi.	1,850.00

The raw sewage was first used for the irrigation of pasture land. A contract was made with the San Antonio Irrigation Company for the disposal of the sewage. The City was growing rapidly and in 1901, it was decided by the City Council to construct a dam, creating Mitchell Lake south of the City. Prior to that time the City had operated a sewer farm in the same area valued at about $28,000. Raw sewage was emptied into the lake from the rapidly growing City for the next thirty years.

Medina Dam:

Alex Walton was a man with a wild dream. About the time that George Paschal was elected Mayor of San Antonio, Alex Walton was in Medina County hunting deer in Box Canyon on the Medina River. Alex was not much of a businessman nor was he at all overly educated. However, he was struck by the natural basin beyond Box Canyon and the idea to build a dam across the river burned an image into his mind that became an obsession. It became the challenge of his life. He returned to San Antonio from Box Canyon and decided to obtain an expert opinion on the feasibility of the project from Major Dutton. The Major was in command of the arsenal at San Antonio. Major Dutton being a seasoned engineer, inspected the canyon, examined the acreage, and came to the opinion that the reservoir would "leak like a sieve." Walton would not let this stand in his way. He decided that he would take up the study of engineering in order to approach the problem in a scientific way - and he did.

After a while, Alex Walton gathered a following of engineers who favored the idea. It was probably enough for Alex Walton to just build the dam and an almost child-like dream had to have the support of economics and the dam was to furnish irrigation water for the new farms in the Medina River Valley. Finally in May of 1910, the Medina Irrigation Company was formed. The Company was incorporated under the laws of the State of Texas.

The Board of Directors included Charles C. Cresson; Franz Groos; Thomas B. Palfrey; William Aubrey; and Clint Kearny. About $6,000,000 worth of bonds were sold to British investors and the dam was begun in 1911. Upon completion of the dam, it began to leak like a sieve just as Major Dutton had predicted. However, it was not an economic failure. The bonds were paid off at the designated time. The death toll for the project was about average for the time. Seventy Mexican laborers died. In addition, it is rumored that at least one Mexican lies buried in the concrete of the dam.

Belgian Farmers:

The fame of the San Antonio River Valley reached as far as northern Europe in the 1880's. The tropical climate and the ancient Spanish irrigation ditches attracted a group of Belgian vegetable farmers to come as a group to Texas. They settled along the San Pedro Acequia. Each "garden" or farm consisted of about 10 or 12 acres. This land was tilled with big horses and strong mules. The size of the farms remained small because a family could work only a limited area with mules and horses. The San Pedro Acequia furnished water for the Belgians until the year 1900. At that time, a group of farmers banded together and drilled a common well to the Edwards Aquifer. The well was located at what is today the corner of Brazos and Laredo streets. It was known as Van Dale's well. The well still flows today being located in a junk yard around the back side of a building. The famous

Van de Walle family drilled the third Belgian well off of what is today Brady Street. The concept of a community well for five or six families became obsolete as disagreements broke out among the farmers on the use of water. Also, the size of the farms were growing due to improvements in farm implements and mechanization. In the 1920's, the farms increased from the original 12 acres to around 30 acres. In the 1940's, the farms went to 100 acres, and in the 1950's, the sizes increased to 200 acres and more.

The farmers began to drill wells to the Edwards when the number of irrigators became too large to support themselves out of the San Pedro Acequia. Certain unscrupulous farmers would steal water from the ditch by breaking open a hole. Many times the "hole" was blamed on the "crawdads" that inhabited the ditch.

It is interesting to note that the Belgian "gardners" first located west of town on the San Pedro Ditch and as the town grew, the farmers moved west. They remain on the west side of the City today just as they started.

Water Companies 1877-1970:

San Antonio's water supply was owned by five private corporations or individuals before it became a publicly held company. George Brackenridge held the company for twenty-two years from 1883 to 1905. In 1905, he decided to sell the company to an

employee. The employee at first treated the matter as a joke knowing that his very limited funds would not buy even a portion of the company. However, Mr. Brackenridge was persistent and the offer was made several times. The employee mentioned the offer to a friend who was planning a trip to Chicago. The friend had money contacts in Chicago and offered to raise the necessary capital if he could. A thirty-day option was arranged and the friend journeyed to Chicago. No interest was generated in Chicago, however, on the way back home, the friend stopped off in St. Louis. He met a cousin by chance that he had not seen in a number of years. The chance meeting resulted in a dinner invitation. At the dinner he met the private secretary of George J. Kobusch. Mr. Kobusch was a man of means in the financial circle of his day. The friend, in idle conversation, told the private secretary of his journey to Chicago and his disappointment. One thing led to another and the friend was urged to spend one more day in St. Louis to speak to Mr. Kobusch. That night the friend was on his way to San Antonio with $100,000 cash. At the time of his arrival in San Antonio, Mr. Brackenridge was faced with the real prospect of selling the company that he had nursed and built for 22 years. He was reluctant to go through with the deal, but he had given his word and it was binding. However, before he would honor the option, he made them deposit the $100,000 in the San Antonio National Bank, which he owned.

The deal was made and in the following year, the San Antonio Water Supply Company was organized with Mr. Kobusch as the majority stockholder. Three years later, ninety per cent of the stock was sold to a Belgian syndicate in Antwerp. The Belgians again entered into the history of water in San Antonio. The company was organized under the name of "Compagnie des Eaux de San Antonio." The Mississippi Valley Trust Company acted as the agent for the Belgian interests.

Expansion of the water system was rapid under the Belgian ownership. The population was increasing rapidly during this period. The Belgian syndicate was progressing rapidly. Three new plants were put into operation when Belgium was invaded by Germany in 1914. All communication was cut off from the Belgian syndicate to the agents in the United States. The money which would have gone to the syndicate in interest and dividends was placed in a company surplus and became available for development work. At the end of the war, the Belgian owners found themselves in desperate need of cash. The Belgian franc had fallen to a very low rate of exchange enabling San Antonio investors to purchase the company in 1920. The San Antonio syndicate bought up two-thirds of the company stock. The remaining one-third of the stock was taken over by the Mississippi Valley Trust Company and later was absorbed by the San Antonio investors. The members of the San Antonio syndicate were: E. B. Chandler; J. H. Lapham; W. C. Rigsby; Robert J. Harding; A. S. Gaze; W. K. Ewing; J. H. Kokernot; H. L. Kokernot; John Molesworth; Charles Schreiner, Jr.; Gus Gieseke; and J. N. Bennet, Jr.

The largest city in Texas in 1920 was San Antonio. The influence of water, an abundant natural resource, had pushed the City forward. Another smaller city in deep southeast Texas was beginning to be surrounded by oil fields on top of salt domes. Another abundant natural resource was about to change the population pattern of Texas. The smaller city was Houston. Could it be that our natural resource in San Antonio is becoming less abundant and slowing our growth?

In almost every decade since 1910 there has been a lonely warning about the conservation of water in the Edwards Aquifer. In 1923, San Antonio used an average of 22,494,000 gallons of water per day for 35,000 consumers. Dallas, with a less abundant and more costly supply of water, used only 12,000,000 gallons per day for 44,000 consumers. Is 1970 the time to think about water conservation in San Antonio? Should we wait until the springs dry up and the water becomes brackish? Does abundance generate waste? More lonely warnings are being written today. It is probable that future lonely warnings will be written until a waterless hour arrives.

The privately owned water company in San Antonio was always subject to purchase by the public. The first contract made between J. B. Lacoste and the City stipulated that the company could be bought from Lacoste at the end of twenty five years