

1957?

# MASTER PLAN REPORT

FOR THE FULL SCALE DEVELOPMENT OF THE

# SAN JACINTO RIVER

PREPARED BY

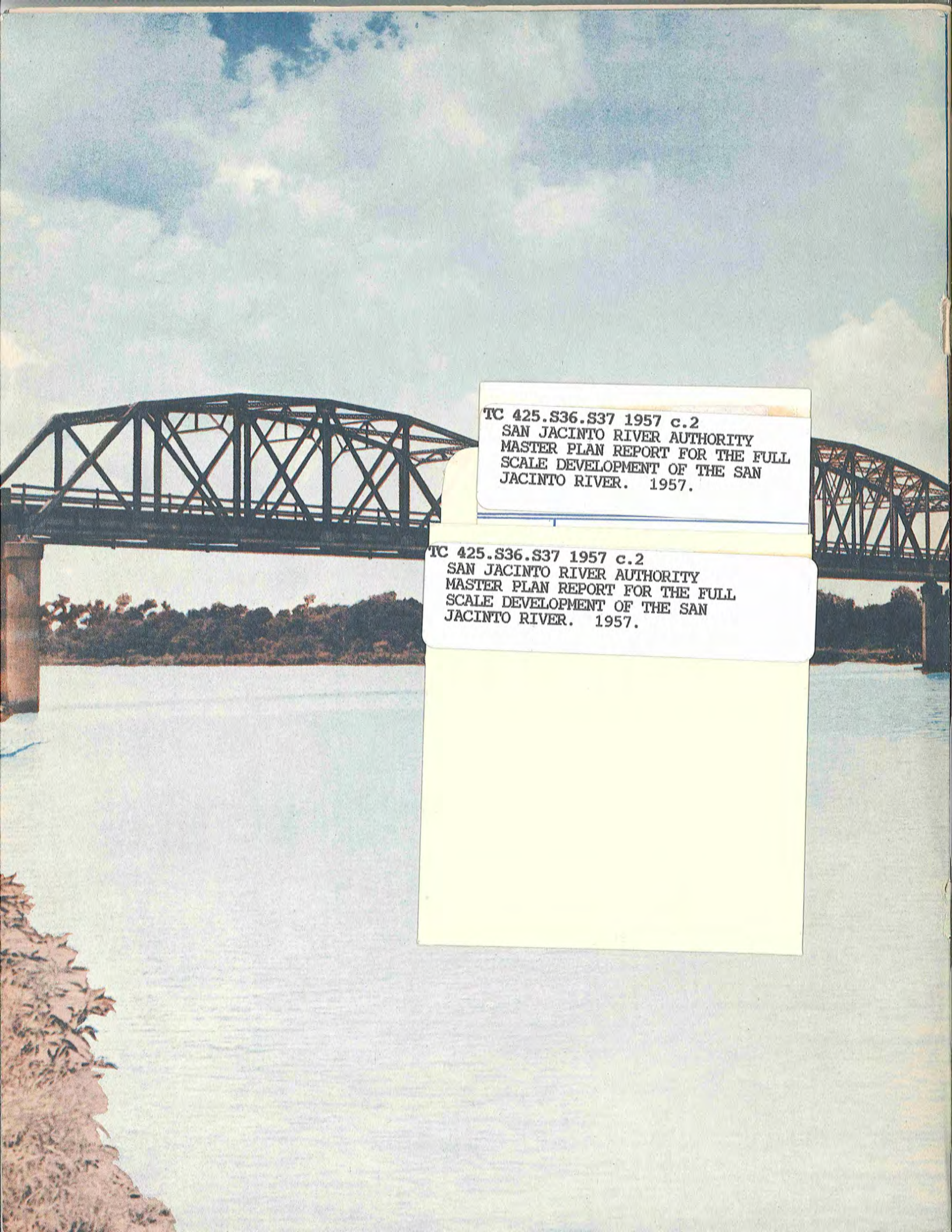
THE SAN JACINTO RIVER AUTHORITY

CONROE, TEXAS

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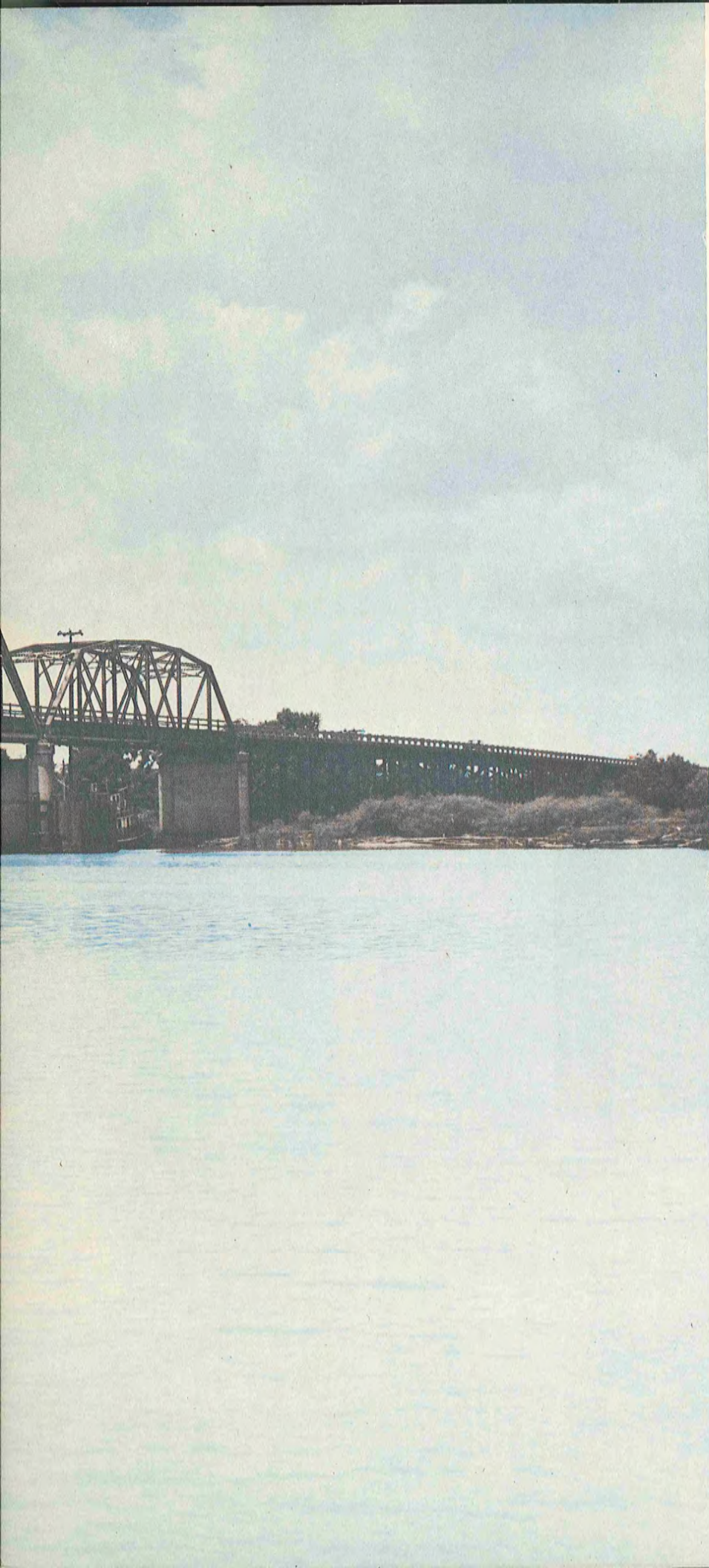


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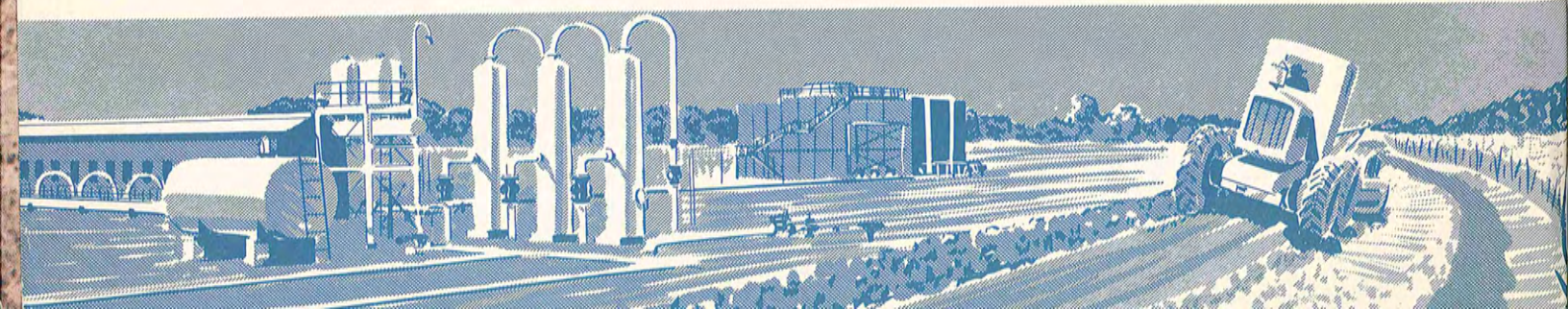
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## FOREWORD

Contained herein is the Master Plan of the San Jacinto River Authority. It is designed to present clearly the story of the San Jacinto River and the part it is playing, and can be made to play, in the lives of the people in the area it serves.



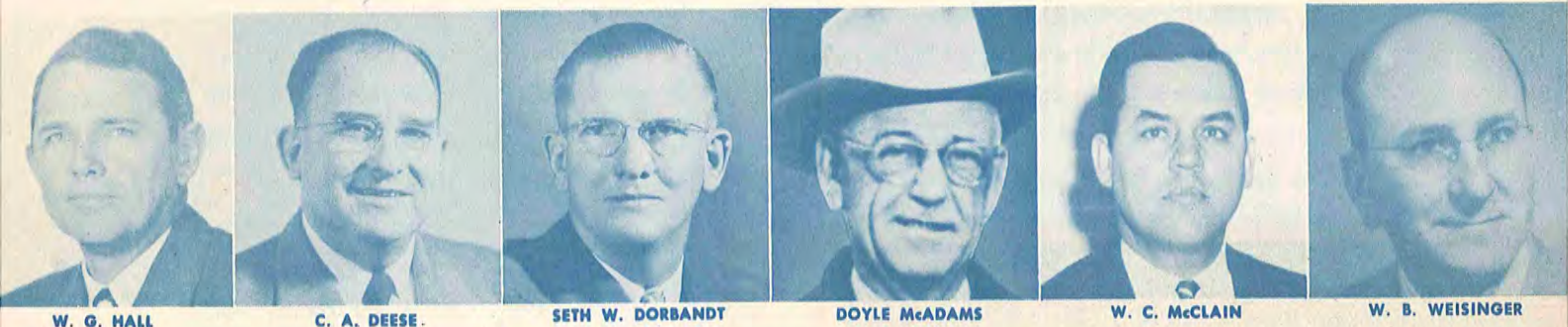
We would appreciate the inquiries of those who may want additional technical data or other information concerning this river or the area.

To our engineers, Freese and Nichols of Fort Worth, to James M. Crane, Victor W. Bouldin and James V. Allred, our attorneys in the past, and to our present attorney, Jack K. Ayer of Houston, to the past and present members of the State Board of Water Engineers, to the U. S. Geological Survey, the Corps

of Engineers of the U. S. Army, and to the many others who have assisted in supplying this data, we express our thanks.



The name "San Jacinto River Authority," was adopted in 1951 by act of the Texas Legislature, replacing the old name, "San Jacinto River Conservation and Reclamation District," but otherwise leaving its objectives and purposes unchanged.



W. G. HALL      C. A. DEESE      SETH W. DORBANDT      DOYLE McADAMS      W. C. McCLAIN      W. B. WEISINGER

**SAN JACINTO RIVER AUTHORITY**

BOARD OF DIRECTORS



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JACK AYER

**COUNSEL**  
Houston, Texas



The San Jacinto River Authority was created by the State Legislature as a nonprofit State Agency for the purpose of developing the San Jacinto River watershed. It comprises all of Montgomery County and parts of Waller, Grimes, Walker, San Jacinto, and Liberty Counties. Industrial growth of this area during World War II and since has shown the need for the development of this river. In this region people are planning, building, and expanding at such a rate that here we find the fastest growing industrial area in the world.

Since 1945, Houston has been among the five leading cities in the United States in value of industrial construction. Industrial em-

ployment has more than doubled since 1939; the consumption of natural gas has increased 500 per cent; the annual value of industrial products has increased approximately 300 per cent.

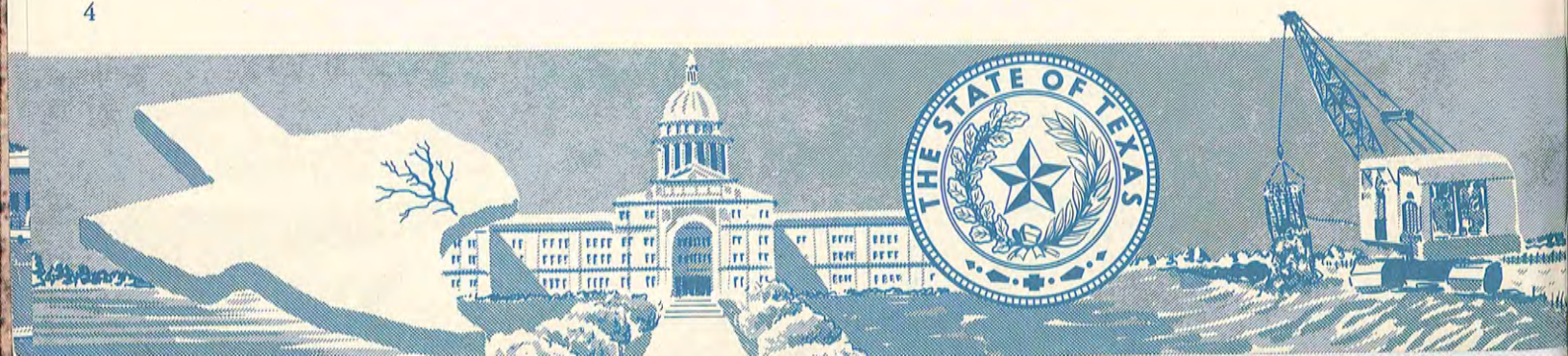
Although the major part of this development has taken place in Houston and Harris County, the counties lying directly north of Houston have also felt the impact, and they now are ripe for further industrialization.

Montgomery County, for instance, has an abundant supply of oil, natural gas and many other native resources including gravel, clay, and timber. It has vast stretches of undeveloped land which could be economically put to use for industrial sites. Labor is plentiful and operating costs, in general, are very attractive.

Montgomery County is served by three State and National Highways and has excellent rail and bus service. Conroe, the county seat, is just forty miles from the Houston Ship Channel, which opens the gates to all nations.

Industrial development can proceed, however, only to the extent to which abundant supplies of water for this use can be provided. In this respect the area is also fortunate, for in addition to the prolific artesian sands underlying the region, the San Jacinto River, completely developed, will be able to supply great volumes of water to new industries at any of several points in the area. Detailed information on this water supply program is included in the

## INTRODUCTION



Master Plan contained in this book under the title, "Water Supply," and in the attached Exhibit "A".

Future water needs of this area present a challenge to individuals and to local governments. Any plan to supply these needs must be based upon the principle of the greatest good for the greatest number of people over the longest period of time. Every sub-division of government involved should stand ready to recognize the rights and equities of all other areas. Each has an essential place in the picture, and everyone within its general scope must be fairly served.

The Authority's policy has been, and shall continue to be, one of full cooperation with each interested party and with the State and Federal Governments and their agencies.

The specific powers granted to the San Jacinto River Authority, as well as duties imposed upon the Authority by Acts of the Legislature creating and defining its powers, are included in the copy of the statutes attached at the back of this book. A general discussion of the Authority's legal background and powers will be found in Chapter Two.

The program set forth here includes the Master Plan of Development of the San Jacinto River, as approved by the Board of Water Engineers of Texas and by the Reclamation Department of the General Land Office of Texas.

Competent engineers have provided the professional and technical advice necessary in

carrying on the Authority's program. Their surveys and investigations have guided the Directors in years past and are the basis for formulating future plans.

The plan which follows calls for the conservation of the natural resources within the watershed. Although the development of the river as a source of water supply is of primary concern, the conservation and reclamation of soil and lands, as well as the control of run-off waters, are equally important. The Board feels that by initiating practices to control run-off waters, great and lasting good can be achieved; installations which allow these waters to percolate into the soil will not only increase the productivity of the lands but will also aid in recharging the underlying sands.

The Authority has gathered within these covers available data and information which will be beneficial to the development of the entire watershed. This plan is the result of several years' study, coupled with experience acquired from the supervision of a soil conservation and land reclamation program and the operation of a water supply system.

The plan also includes information, data, and counsel from the State Board of Water Engineers of Texas, the State Reclamation Engineer of the General Land Office, the United States Geological Survey, the Corps of Engineers of the United States Army, and other public and private agencies, including the United States Department of Agriculture.



The creation of any major agency dealing with the regulation and improvement of natural resources, public lands, and properties always demands patience, persistence, and dogged determination on the part of its sponsors.

The small group of men who fought the early battles for the San Jacinto River Authority were fortunately endowed with these qualities, as well as a realistic attitude toward its development. They knew from the start that it would be years before their ideas could be transformed into operative measures.

The idea for the creation of the Authority was originated by Mr. O. Etheridge of Conroe, who had first become acquainted with reclamation work in the Far West in the early days of the century. He moved to Conroe in 1910, and, after observing the profligate waste of soil and water in the San Jacinto valley, became convinced that some type of

river authority was essential for the area.

Mr. Etheridge spent several years compiling research and data on various forms of river authorities and conservation practices. He and a group of other prominent men in the area then pooled their ideas on the subject.

Among those who pioneered in developing a plan for the control and development of the San Jacinto River were the late Walter Greenwood of Plantersville, Kirby S. Keeland of New Waverly, Charles S. Scott and his brother, J. Virgil Scott, of Dacus and Houston, the late J. W. Green of Longstreet, and Leo R. Paddock of Willis.

The legislation creating the Authority was introduced when the State Legislature convened in January, 1937 by the late Honorable R. A. Powell, State Representative for the 27th Legislative District, comprising Montgomery and Grimes Counties. The bill had been prepared by Mr. Etheridge and Mr. James M. Crane, a Conroe attorney, with the aid of Mr. Powell.

The primary purposes of the bill were: (1) to protect the soil from erosion; (2) to provide flood control; (3) to aid and encourage reforestation; (4) to build a series of small dams along the San Jacinto tributaries and impound water which could be sold to municipalities, industries, and agriculture; and (5) to stock the streams and impounded waters with fish and adaptable forest areas with game for the preservation and conservation of wild life.

The bill was passed by the 45th State Legislature in January of 1937. It gave the Authority a wide range of powers. Unfortunately, however, as the bill was finally enacted into law, it provided no funds with which to implement these measures.

Despite the difficulty of beginning operations or proceeding beyond the planning stage without funds, the first Board of Directors for the Authority were appointed by the

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State Board of Water Engineers. These were J. W. Green of Longstreet, Walter Greenwood of Plantersville, O. Etheridge of Conroe, K. S. Keeland of New Waverly, Charles R. Scott of Dacus, and Leo R. Paddock of Willis.

The Board held its first election of officers on November 15, 1937. Those elected were O. Etheridge, president; J. W. Green, vice-president; and Charles R. Scott, secretary and treasurer. At this meeting, Mr. James Crane was appointed the District's first counsel.

Lack of funds continued to prevent the Authority from beginning active work on its program until 1939. Until this time the project remained in the "paper stage."

During the meeting of the 1939 State Legislature, Mrs. Neveille H. Colson, then State Representative from the 27th District, introduced and secured passage of, despite severe opposition, the Tax Remission Bill granting the Authority a fifty per cent remission of the ad valorem tax provided for general revenue purposes in those counties lying within the Authority's boundaries. The bill was to become effective September 1, 1939 for a period of ten years.

Staunch friends in the State Legislature have been greatly responsible for the Authority's progress through the years. In addition to Senator Colson, the Honorable G. P. Pearson, Jr., State Representative from District 27, and the Honorable M. B. Etheridge, Jr. from District 29 played vital roles in securing passage of legislation of importance to the Authority.

The Authority, having secured funds, was now in a position to hire engineers to plan the development of the river and its watershed.

The Authority also began a number of

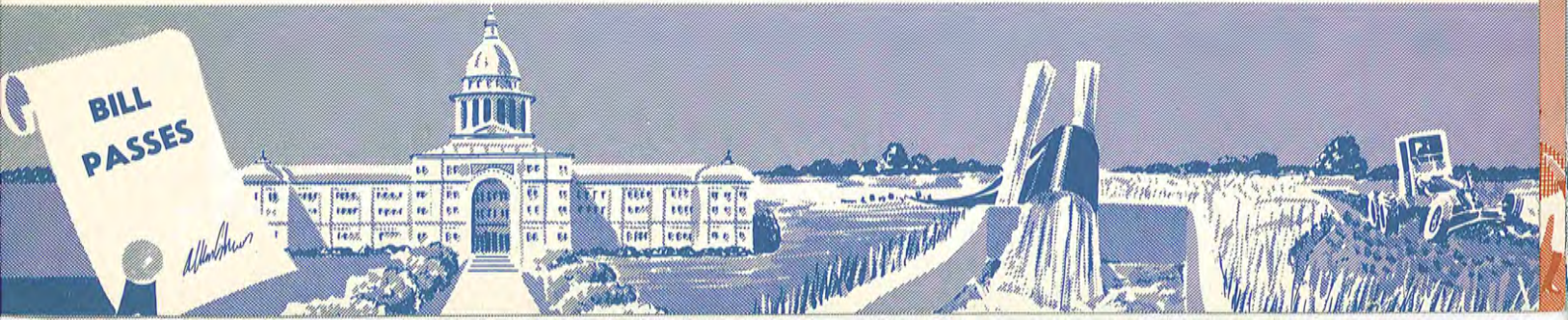
surveys to determine how best to improve the agriculture of the area and to initiate a long range program of soil conservation and land reclamation. Many State and Federal Government agencies assisted in this effort, including the Extension Service, the United States Department of Agriculture, and the Texas Forestry Service.

The Authority's Engineers' surveys were completed by 1941, and formative plans were made for impounding water on the San Jacinto for sale to war plants along the Houston Ship Channel, as well as to other municipalities and industries in the area.

The original plans for extending water supply canals to near the mouth of the river also tentatively included an extension of the canal system which would provide water supply for Texas City and Galveston.

Severe opposition to these plans was encountered by the Authority both in Texas and in Washington. The City of Houston and the Harris County Flood Control Board had water supply plans of their own for parts of the area, and it was several years before the conflicting programs could be agreeably adjusted.

In the fall of 1941, new officers for the Authority were elected; some of the first officers desired to retire, and others had moved from the area. The new officers were J. L. Pitts, president; A. H. Crouch, vice-president; K. S. Keeland, treasurer; and C. R. Scott, secretary. Mr. O. Etheridge, the retiring president, remained on the Board of Directors, and Mr. Victor Bouldin, of the Houston law firm of Vinson, Elkins, Weems, and Francis, was retained as counsel.





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The controversy with the City of Houston had not yet been worked out, and, accordingly, the Federal Works Agency built a water supply system on the lower San Jacinto to supply the war industries in the area. This system consisted of a pumping plant, with a canal and reservoir system on each side of the river.

The Authority cooperated with the Federal Government to the fullest extent during the war years and postponed its own plans. The Board of Directors met on June 4, 1943 and adopted a resolution assigning to the Federal Works Agency the Authority's water rights for the duration of the war and twelve months thereafter. In return, the Authority was to receive \$1.00 per year, and all water rights were to be returned at the end of the designated period of time.

New Board members and officers were elected in August of 1943. Mr. Pitts and Mr. Crouch resigned from the Board in order that representation from the entire watershed might be included. Mr. Walter G. Hall of Dickinson was elected president; Frank N. Read of Baytown, vice-president; Charles R. Scott of Houston, secretary; and A. R. Woodson of Conroe, treasurer. Mr. Doyle F. McAdams of Huntsville was sworn in as a Board Member, and James V. Allred retained as Legal Counsel. Some time later, C. A. Deese of Plantersville was appointed a Director and thereafter elected secretary of the Board.

Negotiations between the Authority and the Federal Works Agency continued throughout the war years, and the Authority also sought to effect some sort of workable compromise with officials of the City of Houston. In 1945, the F.W.A. advised both the Authority and the City of Houston that if the two could come to an agreement, the F.W.A. would consider the sale of the water supply system.

Such an agreement was finally reached, and on April 25, 1945 the Authority purchased that part of the system east of the river and the City of Houston purchased the west half of the system. The pumping plant, which supplied both canals, was to remain F.W.A. property and be operated by the City of Houston, with operation expense shared by the Authority and Houston.

At last the Authority was actually "in business" and thought was turned to the expansion of the water business and getting soil conservation practices, reforestation, and recreation facilities into operation as soon as possible.

The Authority paid a total purchase price of \$862,572.78 for the East Canal, Highlands Reservoir, rights of way, et cetera. The funds for the purchase of the system were provided by a \$600,000 Bond Issue and from funds on hand through collection of State Tax Remission revenues. The Authority issued these bonds in 1945, and net profits from water





sales and Tax Remission funds enabled the Board to retire all bonds in full in December, 1949.

Shortly after acquiring the East Canal System, the Authority signed contracts with Humble Oil and Refining Company to supply the Baytown Refinery with 20,000,000 gallons of water daily. These contracts have been renewed at intervals in the years since.

The irrigation of rice farms has been another phase of the Authority's water supply operations. In addition to supplying the Humble Baytown Refinery with industrial water, San Jacinto water has been pumped each year to a number of rice farmers in the Highlands-Crosby-Baytown area.

The rice farming in this region is not, comparatively speaking, on a large scale. Acreage varies from year to year, and during 1950 the Authority contracted to irrigate 2,000 acres. This crop, however, is economically important to the communities in this part of Harris County, and the Authority has followed a policy of doing all in its power to provide water as needed by its customers.

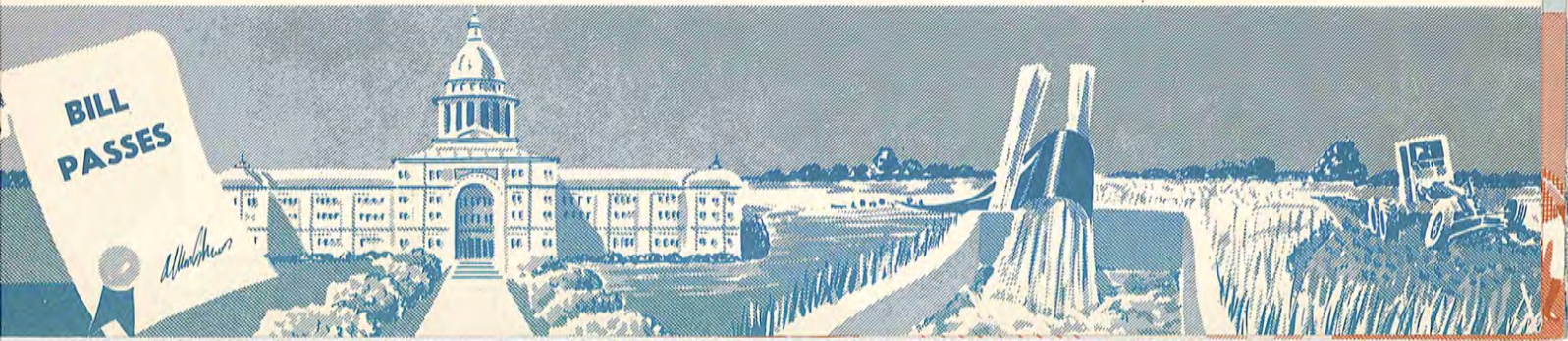
The summer of 1947 was an unusually dry one. The Authority was irrigating approximately 5,000 acres of rice in the Highlands area when a water shortage developed late in July. At the same time, mechanical difficulty at the pumping plant prevented delivery of the full amount of water needed by the crops. Critically needed parts for the disabled pumps were unavailable, and it appeared that the rice crops were doomed to destruction under the hot Texas sun.

Emergency methods were employed by the Authority to avert this disaster. Temporary pumps were purchased and installed; the Humble Oil and Refining Company provided some scarce and essential equipment. These emergency measures cost \$20,000, but enabled the Authority to keep water flowing and to save a bumper crop worth approximately \$740,000 to farmers in the community.

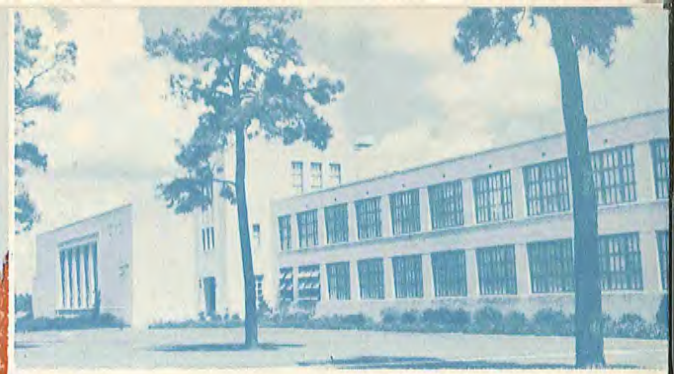
Again in 1948 a water shortage developed due to mechanical breakdown in the pumping plant. Pump failure prevented having a full reservoir at the beginning of the irrigation season, and an extremely dry summer and fall made emergency measures necessary. A hurriedly constructed canal enabled the Authority to bring in water from the Dayton Canal Company and the Southern Canal System. This water saved most of the rice crop.

The soil conservation program, after years of careful study, was activated in 1946 when, at long last, equipment was available. The Board of Directors decided to enter into a joint program with the San Jacinto Soil Conservation District, which District agreed to furnish engineering and planning for the reclamation measures undertaken within the area.

When the conservation program was put into operation, it was discovered that there were approximately 5,000 farms and ranches in the watershed that needed aid in controlling erosion and in rebuilding depleted soils. The San Jacinto River Authority purchased approximately \$50,000 worth of equipment which has been used extensively by farmers and



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ranchers throughout Walker, Montgomery, Waller, Grimes, and San Jacinto Counties.

The first soil conservation machinery was unloaded on the farm of Mr. Charles Cluxton in Montgomery County. This proved to be the beginning of a new day for farmers and ranchmen in the San Jacinto watershed. Many other farmers, like Mr. Cluxton, had fields so badly eroded and slushed with gulleys that they could not be profitably cultivated. Since that time vast improvement has been made in many of the fields in Montgomery and other counties within the area of the Authority. What has been done is relatively small, however, in relation to the entire problem, and can only serve as an inspiration in coping with remaining needs.

The Authority provides the equipment and pays the cost of the materials and labor for its operation. The engineers and directors of the Soil Conservation District dispatch it to the farms and ranches when the necessary engineering has been done. The work is done under the supervision of Soil Conservation District engineers. The expense to the farmers amounts to slightly less than the cost of labor and material and is paid as improvements are constructed. This method of cooperation prevents any duplication and takes advantage of the engineering services in planning and super-

vision, as provided by the Soil Conservation Service, and thereby makes available more funds for equipment and its operation.

There have been too many seemingly miraculous land reclamations accomplished to cite them all here. There is space, however, for at least one man's story which serves as a fine example of what is being done to restore Texas topsoil.

In Walker County, near Huntsville, James H. Anderson bought a 320-acre farm. The son of a Texas minister who had moved frequently from one small town to another, Jim Anderson decided, after serving five years in the Air Force during World War II, that he wanted to settle his family on a farm of their own.

It was a long, hard pull for Anderson those first few years. Many of his fields had been badly eroded, and the soil was almost completely depleted of fertility. The first year he was able to produce only three bales of cotton on the thirty acres he had under cultivation.

With a wife and four small daughters to support and little coming in from his farm, Anderson decided his only hope was to tackle the problem in a thoroughly scientific manner. He enlisted the aid of the Soil Conservation District's technical experts, who drew up a





restoration program for him and brought in the Authority's equipment to fill in gullies and build field terraces, stock tanks, and water diversions.

The next step was to build up the soil content of his fields by fertilizing, mowing, and keeping winter crops, such as Austrian peas, planted. The latter serve the dual purpose of keeping winter rains from damaging open fields and, when plowed under, of enriching the soil.

All this work took several years of dogged, persistent labor. But Jim Anderson discovered that reclamation efforts really pay off. To illustrate, in 1949, he produced 28 bales of cotton on 45 acres. This is about nine times as much cotton per acre as he produced the first year.

Jim Anderson's story is but one of the many that could be related by farmers and ranchers throughout the watershed area. These progressive-minded men have enthusiastically cooperated with the Authority and the Soil Conservation District in their attempts to reclaim and restore their valuable farm lands. The results of the conservation program have been excellent. Farmers and ranchers have benefited greatly from the improvements, and the protection afforded the watershed and tributary streams is invaluable.

The Authority has pushed ahead during the past few years with plans for constructing dams on the San Jacinto and its tributaries. Descriptions of these dams, which would provide flood control and impound more water

for use, are included in Exhibit "A" at the back of this book.

Future plans for the development of the San Jacinto River are flexible, and will be changed to meet the ever-shifting needs of this rich and growing region.

The City of Houston's proposed construction of a dam near Houston has caused the Authority to alter some of its original plans for dam construction. The Board of Directors plans to build, as its first dam, the Lake Creek Dam near Dobbins in Montgomery County within the next few years.

The incumbent officers and Board of Directors realize that uncertain world conditions may once again delay and enforce changes in plans. They feel, however, that the Authority is now a financially stable and secure development, capable of adjusting to conditions as the need arises. From experience gained in the many related phases of soil and water conservation, the Authority is able to look ahead discerningly and project future plans. In years to come, the long range development of the San Jacinto River will proceed step by step, as rapidly as changing conditions permit, with increasing benefits to everyone living within the region.

The name "San Jacinto River Authority," was adopted in 1951 by act of the Texas Legislature, replacing the old name, "San Jacinto River Conservation and Reclamation District," but otherwise leaving its objectives and purposes unchanged.





## STATEMENT OF POWERS

The San Jacinto River Authority was originally created by a Special Act of the 45th Legislature of the State of Texas in 1937. The Authority was therein designated a governmental agency and vested with all the authority as such under the constitution and laws of the State of Texas.

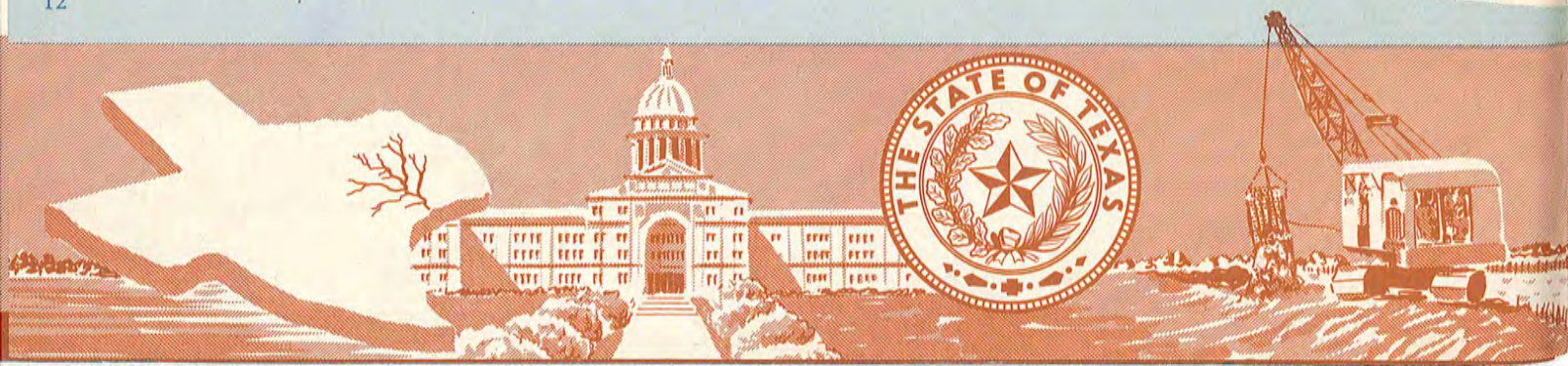
The officers of the Authority are elected by the Board of Directors. The six Directors of the Authority are appointed for six year terms by the State Board of Water Engineers of Texas and serve without salary. They may live within or without the area covered by the Authority.

The Authority was created as a conservation and reclamation district to carry out the purposes of the provisions of the State Constitution, Article XVI, Section 59, which primarily deals with: (1) flood control and protection of navigation, (2) water supply for domestic, municipal, industrial, irrigation, and other useful purposes, (3) soil conservation and reclamation of overflowed lands, (4) reforestation, and (5) recreation.

The boundaries of the Authority embrace all of the watershed of the San Jacinto River except that portion lying in Harris County. However, the Authority has the right to purchase and operate any and all property, within or without its boundaries necessary or convenient to the exercise of the powers conferred upon it.

The Authority is a non profit organization. In the past it has obtained its revenue from water sales and from tax remissions by the State of Texas. The tax remissions were for a specified number of years and consisted of a certain percentage of all State ad valorem taxes collected for general revenue purposes from the property and persons in the counties of Montgomery, Walker, San Jacinto, and that part of Liberty County within the San Jacinto watershed. These are areas within the limits of the Authority. The revenues received are invested in a carefully planned program of water supply, soil conservation, reforestation, and restoration of fertility of the lands within its boundaries.

The Authority has power to issue negotiable bonds secured by its current water sale revenues and other income, such as tax remissions. Such bonds are issued only for the



purposes listed in the Act which includes the acquisition of lands, structures, equipment, dams, and reservoirs required for water supply and for the control of the recurrent devastating floods in the valley of the San Jacinto River. These floods have in the past caused a deplorable loss of life and property, together with the erosion of the soil and depletion of the fertility of the land.

The State Board of Water Engineers, the agency which has power of granting water permits on Texas Rivers, granted to the Authority Water Permit No. 1342, now in full force and effect, with date of July 25, 1942, which gives the Authority the right to appropriate and take 165,000 acre-feet of water per annum from the San Jacinto River for the purposes of mining, milling, manufacturing, water works for cities, stock raising, recreation, power and water supply for industrial purposes, domestic uses, and irrigation. Under this permit the Authority also has the right to impound in a reservoir 150,000 acre-feet of water.

The Authority has also been granted Water Permit No. 1422, now in full force and effect, with date of February 3, 1947, which grants to it the right to appropriate and take 224,000 acre-feet of water per annum from the San Jacinto River, by pumping, for the purposes of municipal and industrial use. Water is being taken under both permits.

To the extent of 50,000,000 gallons per day, the Authority's Permit No. 1342 is what is known as a "normal flow permit," and is the first and only "normal flow permit" on the San Jacinto River. Under the laws of the State of Texas and its constitution, the waters of the ordinary and normal flow of streams

in this State, as well as storm and flood waters of such streams, are the property of the State.

The right to the use of these waters may be acquired by appropriation. The most important feature of any permit to appropriate water is the nature of the water rights secured by the permit and the conditions imposed upon such rights.

The Authority first applied for the right to appropriate from the normal flow of the San Jacinto River, as this was the most valuable water permit obtainable. In granting to the Authority Permits No. 1342 and 1422, the Board of Water Engineers has given the Authority the right to appropriate from the ordinary or normal flow of the San Jacinto River as well as the right to impound flood waters and to divert same from the reservoir.

Flood or storm waters are the waters of a stream which rise above the line of highest ordinary flow. The waters at or below such line are designated as normal flow. Thus, the water rights within the Authority's permits are perpetual, and ones which attach to the normal and ordinary flow to the extent of such flow. When storm and flood waters are not available in the San Jacinto River, the Authority's right to take waters of the normal flow will prevail, which gives to this type of permit a permanency and security superior to all others.

The Authority's powers and rights under the laws creating it have been tested in the Courts, and the Supreme Court of Texas has sustained the legal status of the Authority, as well as the validity of its actions as a governmental agency with all the powers and privileges conferred upon it by the laws and Constitution of this State.



## MASTER PLAN

# GENERAL PROVISIONS



Nature fashioned our landscape in the form of watersheds, whose protection is of vital importance to our water supplies. In developing a source of water supply, municipalities and various agencies have too often ignored, or failed to understand, the inter-relationship of our natural resources, particularly the unity of land and water.

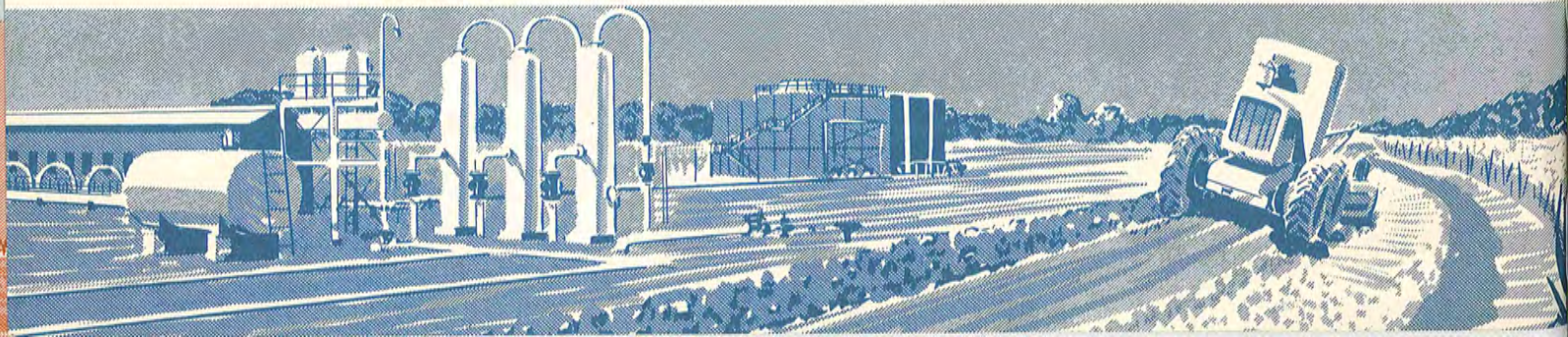
The Authority recognizes that the piecemeal and hasty development of the San Jacinto River as a source of water supply would bring only temporary benefit to a few. The

Authority's plan, therefore, is one that will lead to a full and complete development of the watershed for all conservation purposes and for the fair treatment of the rights of all residing within the area. Any other program would only lead to inequities between various sections and groups and hinder or prevent maximum utilization of the region's natural resources, which must provide maximum benefit for the entire populace.

The full development of the San Jacinto and its tributaries cannot be accomplished quickly, but will require constant and persistent effort. A long range program is required which can be completed step by step as necessity, funds, and conditions permit. This program will proceed as rapidly as possible over a period of many years.

The primary objective of this plan is the conservation, reclamation, and utilization of the natural resources of the entire watershed of the San Jacinto River and its tributaries for all purposes contemplated by the State Government when it created the Authority.

In order to implement the stated policy, the Authority shall continue its current efforts in the following related fields of development:







**FLOOD CONTROL AND PROTECTION OF NAVIGATION.** For the prevention of devastation of lands from recurrent overflow and the protection of life and property in the San Jacinto watershed area from uncontrolled flood waters. To encourage, aid, and protect navigation and harbor improvements against damage from flood waters.



**WATER SUPPLY FOR DOMESTIC, MUNICIPAL, INDUSTRIAL, IRRIGATION, AND ALL OTHER USEFUL PURPOSES.** For the conservation of waters essential for the domestic uses of inhabitants of the watershed of the San Jacinto and its tributaries, including all necessary water supplies for cities and towns. For the irrigation of lands in the watershed where irrigation is required for agricultural purposes. For the equitable distribution of storm and flood waters to the regional potential requirement for all uses, domestic, industrial, and irrigation. All plans and works provided by the Authority will continue to give primary regard to the necessary and potential needs for water in the area constituting the watershed of the San Jacinto and its tributaries.



**SOIL CONSERVATION AND RECLAMATION OF OVERFLOWED LANDS.** For the purpose of encouraging the conservation of soils against destructive erosion and preventing the increased flood menace resulting from devastation of lands.

For the development of drainage systems for lands in the valleys of the San Jacinto and its tributaries where drainage is required for profitable agriculture. Drainage is also provided for other lands in the watershed when such developments can be put to advantageous use.



**REFORESTATION.** To forest and aid in the reforestation of the watershed area of the San Jacinto and its tributaries, thereby helping prevent soil erosion and floods within the boundaries of the Authority.



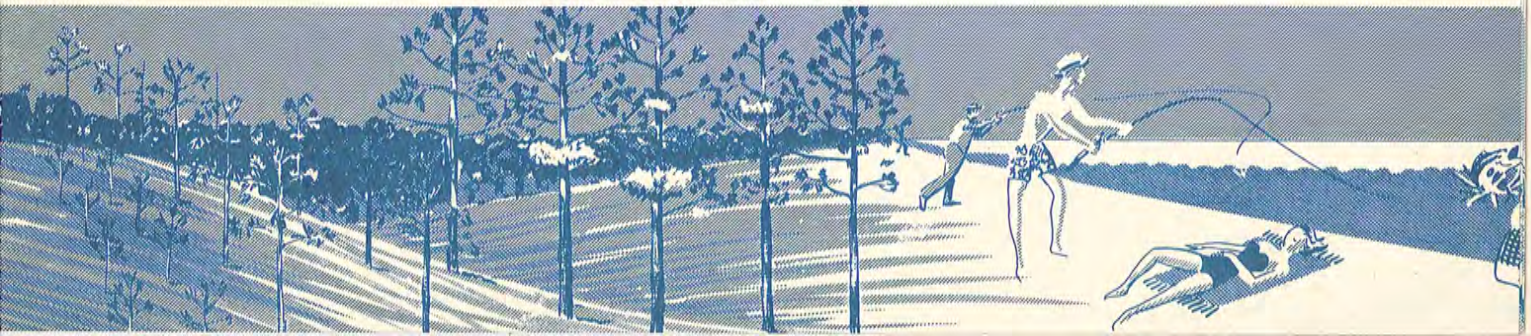
**RECREATION.** Wherever possible and practical, the Authority will continue to make available to the general public all its lakes and other improvements for fishing, boating, swimming, and other means of recreation.

The Authority will continue to coordinate, at all times, the five-point program outlined. In this manner, the program will provide for the maximum utilization of the natural resources of the watershed, and each classification will be developed to the fullest possible extent.

As the Authority's plan is extended, it will be necessary to build dams, reservoirs, and channel improvements. These installations will greatly aid the control of run-off waters, thus eliminating much of the flood menace by allowing water to percolate into the lands. The productivity of the soils will be increased in this manner, and the underlying water bearing sands will be recharged to a greater extent. The proposed improvements will also provide storage facilities and enable the Authority to make full use of the San Jacinto River as a source of water supply.

The improvements to be constructed shall be in substantial compliance with Exhibit "A," which is made a part of this plan. They are also shown on the attached map of the San Jacinto River Authority.

No major changes shall be made in this plan for the development of the San Jacinto River unless this plan is amended and the amendment or resolution duly adopted by the Board of Directors of the Authority. Any amendment to the plan must be approved by the State Board of Water Engineers and the Reclamation Department of the General Land Office of Texas before it can be put into effect.





## FLOOD CONTROL

The watershed of the San Jacinto and the lower valley of the river have been ravaged by recurrent floods for many years. These floods have not only caused a deplorable loss of life and property, but have also carried off untold millions of tons of prime topsoil which has depleted the fertility of the land in the valley.

In addition, the floods, sweeping down year after year out of the watershed area, have inundated public highways, structures, and lands belonging to the State of Texas. Traffic and commerce have been disrupted, often resulting in great losses.

Navigation on the lower part of the San Jacinto has also suffered from these recurrent floods. During the spring flood of 1929, the river dumped large deposits of silt into the Houston Ship Channel, which prevented vessels from entering or leaving the Port of Hous-

ton for five days. In 1935, silt deposits in the Channel, the result of another flood along the San Jacinto, again disrupted shipping for three days.

The Authority has as one of its objectives the protection of navigation on the lower part of the river, as well as a program of flood control which will offer relief to inhabitants within the river valley and its tributaries.

The Port of Houston now ranks as the nation's second port in volume of tonnage handled. The heavy flow of commerce which moves upon this Ship Channel and the importance of the Port to the entire State of Texas cannot be over-emphasized.

The Board of Directors of the Authority fully recognizes the dangers to navigation imposed by unchecked floods on the San Ja-





cinto and shall continue to plan protection for the navigable portion of the river. These plans will, at all times, be consistent with the development of the watershed for all other conservation purposes.

Acting on advice from the Authority's engineers and counsel from the Corps of Army Engineers, the Board of Directors has decided that flood protection for the river valley and navigation can best be provided by the construction of a series of dams across the San Jacinto and some of its principal tributaries. This plan also provides for clearing, widening, and changing the course of the channels of various streams within the watershed and for the construction of levees and other improvements, shown in Exhibit "A," attached.

Engineering surveys, conferences with the Corps of Army Engineers, and the constantly changing conditions in the area have aided the Authority in reaching a decision as to where dams, both for flood control and for water supply, should be built along the river

and which dams should be given preference in the long range program.

The Authority had originally planned to construct the San Jacinto East O Dam as its first improvement. However, the City of Houston now proposes to construct a dam across the San Jacinto at Sheldon, which would inundate the area where the San Jacinto East O Dam would be built. Therefore, the Authority now proposes to drop all plans for the East O Dam.

One other change in the construction of improvements is proposed by the Authority at this time. Original plans for installations on Lake Creek called for the construction of two dams, listed on Exhibit "A" as "Lake Creek 1" and "Lake Creek 2." The Authority now proposes to substitute one dam near Dobbin for the two as originally planned. Pertinent engineering data on the new Lake Creek installation are shown in a schedule on the attached map.



# WATER SUPPLY



Economic and industrial planners throughout the nation are becoming increasingly aware that a long range supply of water for all purposes—domestic, agricultural, and industrial—is essential to the development of any area. In some regions of the country, water supply has already become a critical problem.

The consumption of water per capita has increased at a rapid rate during the past few years. A higher standard of living has increased domestic uses, while new industries have made greater demands on industrial water supplies.

The area included within the Authority's boundaries is blessed with an abundant potential supply of high grade surface water. Official records of the State Board of Water Engineers of Texas and the United States Geological Survey reveal that the average annual run-off of the San Jacinto River and its tributaries is approximately 1,400,000 acre-feet, or 456 billion gallons per year. This is equivalent to approximately 1,250,000,000 gallons per day.

This average daily run-off of 1,250,000,000 gallons compares with a total of approximately 175,000,000 gallons pumped daily from wells for consumption in the area in and around Houston during 1950.


The volume of water used in and adjacent to Houston represents a large majority of the total amount of water used in the entire area.

It thus appears that the average daily run-off of the San Jacinto River is approximately seven times the volume of water pumped in these principal areas in 1950.

With proper storage facilities, a large percentage of the annual run-off can be captured and made available for beneficial uses. The rate of run-off fluctuates sharply, however, and the flow of the river has been known to drop below 20,000,000 gallons per day. Substantial storage is therefore essential to provide a firm and secure supply in excess of the minimum rate of flow.

Surveys made by the Authority's Engineers reveal that it would be physically possible





and feasible to capture and store some 50 per cent of the run-off by the construction of a series of dams and reservoirs. These installations will assure municipalities, industry, and agriculture of always having a firm water supply. The water that can be impounded will be sufficient to take care of all present needs, including that of new industries along the Houston Ship Channel, and leave a large margin to provide for future growth and expansion.

The Authority's Engineers estimate that, in addition to the anticipated requirements of the City of Houston, the San Jacinto River, complete with proposed improvements, is capable of supplying an average of 400,000,000 gallons of water daily to municipalities, industries, and agriculture. This is deemed to be a conservative estimate. In the Conroe area alone, the Engineers estimate that an industry could be supplied approximately 20,000,000 gallons daily from the proposed Lake Creek dam at an attractive price, which would compare favorably with anything north, and particularly west, of Montgomery County.

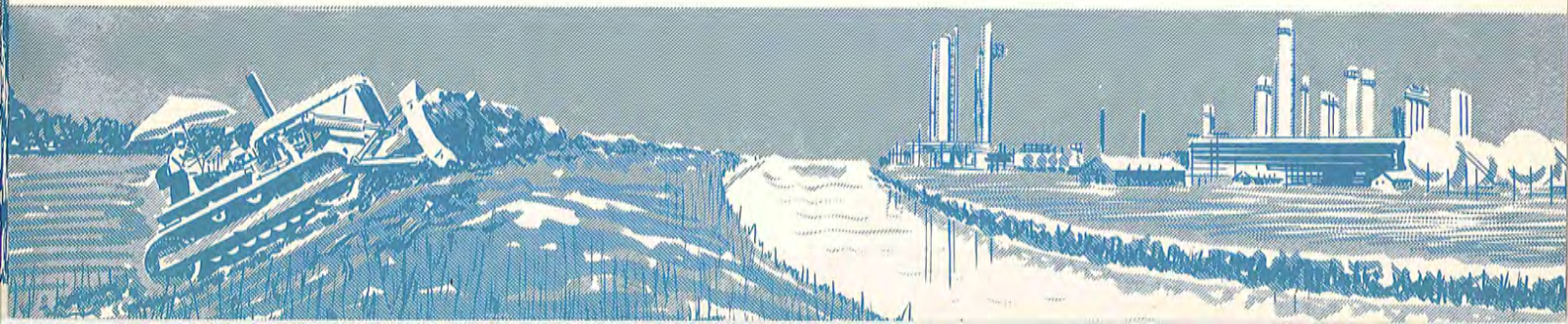
Between 35 and 40 million gallons of water are being pumped daily from the San Jacinto by the Authority for sale to industrial and agricultural users in Harris County. This present water supply system could easily be expanded so that it would supply large volumes of water to new industries, even before the major proposed improvements are constructed.

The system now in operation in Harris County was purchased from the Federal Gov-

ernment in 1945. Water pumped from the river is fed into a system of canals extending east of the river for approximately 20 miles through the Highlands-Crosby-Baytown area. The canals furnish irrigation water to rice farmers in the community, and feed the Authority's 1424-acre reservoir at Highlands. A canal extends from the reservoir to the Humble Oil and Refining Company's refinery at Baytown, principal industrial purchaser of San Jacinto water.

Detailed plans and specifications have been prepared for a new pumping plant with an initial capacity of 75,000,000 gallons per day, with provision for enlargement to 150,000,000 gallons per day. This plant would be capable of pumping water from the proposed City of Houston reservoir.

Not only can an abundant supply of water be delivered from the San Jacinto River as the need arises, but the water itself is of uniformly fine quality, being much superior in quality to that of the streams to the west and comparing favorably with the streams to the east. The water can be used for many industrial purposes without treatment and can be treated at moderate cost for industrial, domestic, and other uses. Analyses show the water to have average hardness of 54 p.p.m. (parts of hardness per million parts of water, both measured by weight). Chlorides in the San Jacinto River water average 58 p.p.m. and sulphates average only 3 p.p.m. By comparison, the Brazos River water exceeds, at times, the



## WATER SUPPLY

U. S. Public Health Service limits of 250 p.p.m. for both sulphates and chlorides, and averages some three times the hardness of the San Jacinto River water.

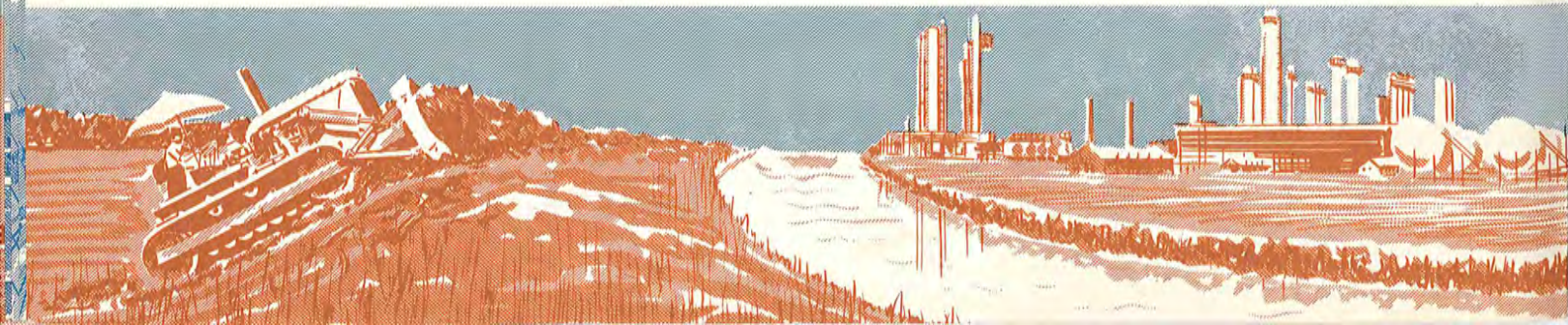
There can be no doubt but what the sale of impounded water, at low rates, will stimulate the development of agriculture, industry, business, and commerce within the watershed of the San Jacinto and its tributaries. The Authority believes that water, made available for sale, should be sold at the lowest rates possible within the limits of a sound business administration of the general conservation program.

However, the only income of consequence which the Authority may anticipate receiving from the development of its conservation program will be that obtained from the sale of water. The Authority, therefore, plans that the following principles shall control the development of the San Jacinto River and its tributaries as a source of surface water supply:

1. The water of the San Jacinto and its tributaries will continue to be made available to all users within the Authority's territory on an impartial basis without discrimination between different sections, localities, or groups, and to be subject to the requirements of law in regard to the priority of uses of water.
2. The rates charged by the Authority for the sale of water shall always be reasonable and, if practicable, will compare favorably with rates charged for water of the same or similar quality in

other watersheds. The waters stored and otherwise produced from the San Jacinto and its tributaries shall be sold and distributed for lawful and beneficial uses, and the income shall be applied as follows:

- a. First, to the payment of the reasonable cost of maintaining, operating, repairing, extending, and improving the dams, reservoirs, canals, pump stations, pipe lines, crossings, and other facilities constructed or acquired for the storage, transportation, treatment, and distribution of the waters of the San Jacinto and its tributaries.
- b. Second, to the payment of principal and interest on the bonds and other evidences of indebtedness which may be issued for the purpose of constructing the necessary improvements, and to establish necessary sinking funds and reserve accounts provided for in the resolutions which authorize the issuance of each series of bonds.
- c. Third, to a proper program of soil conservation and reclamation of overflowed lands within the Authority's boundaries, which program shall be initiated each year and paid for out of the net revenues of the Authority.
- d. Fourth to construct and acquire other improvements and facilities which will be beneficial to the development of the conservation measures provided for in this general plan.





## SOIL CONSERVATION

As has been stated earlier, the relationship of soil and water is such that the orderly development of a river demands that close attention be given to soil conservation in the stream's watershed area.

Recognizing this, and wishing to reclaim and make available for beneficial uses the land within the valley of the San Jacinto River and its tributaries, one of the initial steps taken by the Authority was the organization of a soil conservation program. Many lands within the San Jacinto watershed are recurrently inundated and overflowed with the result that their productivity and usefulness are diminished or destroyed.

The Authority believes that the construction of the dams described in Exhibit "A" will aid greatly in establishing flood control and preventing the overflow of lands along the San Jacinto and its tributaries. Therefore, as part of its soil conservation and reclamation program, it proposes to construct these dams, as

necessary, and when sufficient funds are available.

As the first step toward controlling the run-off of storm and flood waters, the Authority began cooperating with such public agencies as the San Jacinto Soil Conservation District, the United States Department of Agriculture, and the Army Engineers in planning a program of flood control, soil conservation, and land reclamation.

This program called for the construction of drainage ditches, water diversions, field terraces, and levees throughout the watershed area. After due consultation and many conferences with the agencies involved, the Authority's Board of Directors decided to enter into a jointly operated plan which would provide the improvements needed in the watershed area.

The boundaries of the San Jacinto Soil Conservation District correspond substantially with those of the San Jacinto River Authority, and under terms of the agreement reached, this agency, with the assistance of the United States Department of Agriculture, offered to supply the planning and engineering for the improvement program. The San Jacinto River Authority agreed to furnish the equipment for the program, which equipment would be made available to individual farmers and ranchers in the area at a cost approximately equal, to, or less than, operating expense.

To date, the Authority has purchased and put into operation \$55,000.00 worth of equipment for the construction of the improvements needed to control erosion in the watershed area.

# SOIL CONSERVATION

The vast amount of improvements built since the first equipment was acquired in 1946 are too great to list in detail here. The major accomplishments, however, include construction of over 150 miles of field terraces, more than 75 miles of water diversions, and several miles of drainage ditches. The farms and ranches of 127 different individuals have been improved in the past few years. These improvements have aided greatly in controlling the run-off of flood and storm waters, as well as improving the fertility of previously inundated lands.

This work has been done with the equipment purchased by the San Jacinto River Authority and operated by its employees. Planning and supervision of the improvements have been carried out by the San Jacinto Soil Conservation District.

The structures thus far built not only conserve and rebuild the soil, but by slowing up the run-off rate of the rainfall, more water is stored in the soil and underground sands. The water that eventually reaches the main stream gets there more slowly and more evenly, with less silt load. This reduces the silt deposit at the mouth of the stream and behind such dams as may be built, and reduced silt load also improves the quality of the water.

Agriculture in the watershed area has undergone drastic changes in the past few years. A great majority of the farms had previously been used for raising cotton. Many of these farms had become so badly eroded and depleted that they could no longer produce profitable crops. After the gullies were filled in and the fields terraced to prevent further erosion, many of the farmers were advised to turn their fields into pasture lands and to raise beef as a

commercial crop. Today, many of the formerly depleted and wornout farms are being restored to profitable crop and pasture lands, which are adding to the area's prosperity. The soil conservation and reforestation program embraces most of the land within the boundaries of the Authority.

The Authority intends to continue cooperating with the proper public agencies in sponsoring this program for the conservation and reclamation of lands within the watershed area. Funds will continue to be made available, whenever possible, for the purchase and operation of necessary equipment for the construction of land improvements throughout the area within the boundaries of the San Jacinto River Authority.

According to this continuing plan, any person or group of persons within the area may file an application with the Authority setting forth a particular area or areas where projects should be constructed. This application is delivered to the Soil Conservation District, which in turn makes the necessary investigation and determines where and how the work is to be done. The cost of the improvements, in comparison with the benefits and cost of other like improvements, is, of course, a governing factor.

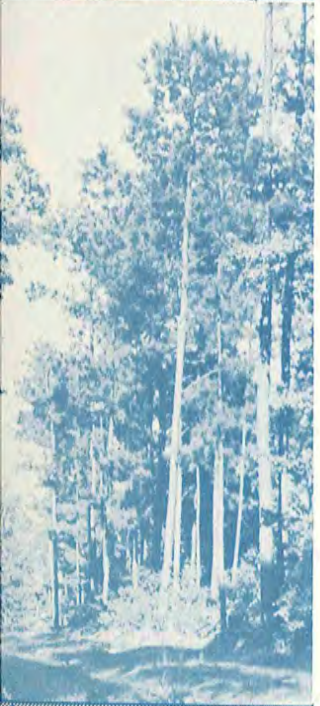
Approved projects will continue to be constructed in the order of priority established, as funds will permit.

While the Board of Directors retains authority to change the working agreement with the Soil Conservation District, the plan thus far has been so satisfactory that no change is anticipated.





## REFORESTATION



Strong, healthy forests offer the greatest protection to a watershed area against damaging effects of wind and uncontrolled water. A visit to any area that has been stripped bare of its timber immediately makes clear the necessity of maintaining forests in such areas.

Along the West Coast, where some mountainsides have been left completely barren, the effects of unprotected slopes are glaringly apparent. In such areas, the soil has been completely stripped away by rains and strong winds.

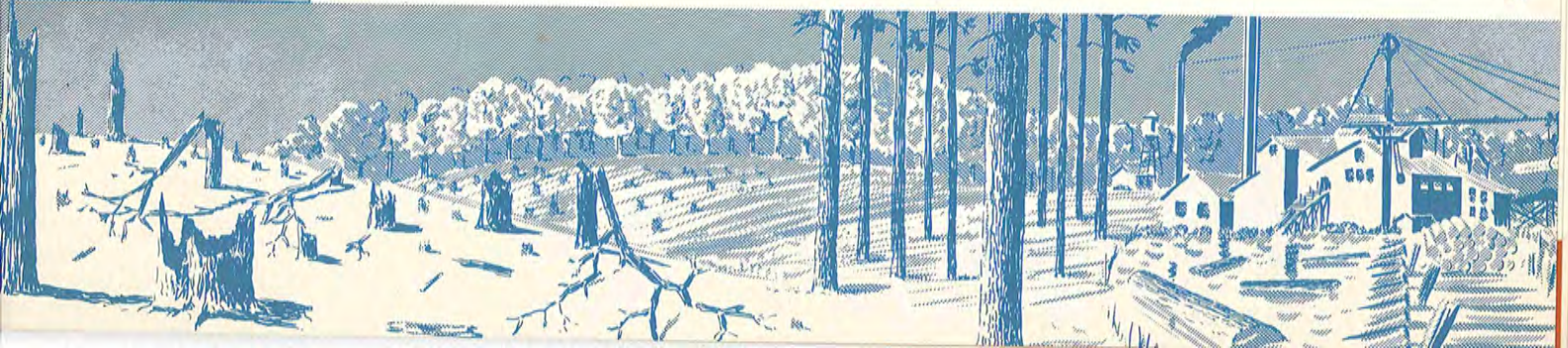
The Authority recognizes that the development of forests is in the public interest, not only to prevent soil erosion by action of the elements, but also to provide a future supply of timber.

The Authority has worked closely with other public agencies engaged in the reforestation of the San Jacinto watershed since the inception of the soil conservation and reclamation pro-

gram. In many instances, lands under reclamation have been found to be too badly damaged to be put back into cultivation, or even into pasturage. In such cases, the fields are leveled, the gullies filled in, and the lands prepared for reforestation by the proper agencies.

The Authority plans to continue future cooperation with the United States Department of Agriculture, the United States Forestry Service, and other appropriate governmental agencies in the development of a program of reforestation and the conservation of existing forests throughout the watershed of the San Jacinto.

The Board of Directors further plans to conduct forestry surveys in the watershed at appropriate intervals in the future. A plan of development, based upon the findings and the changing conditions, will then be worked out for the future development of this program, either independently or in cooperation with other agencies.



## RECREATION

The public's response to the Authority's invitation to make use of the East Canal and Highlands Reservoir for recreational purposes has been very gratifying.

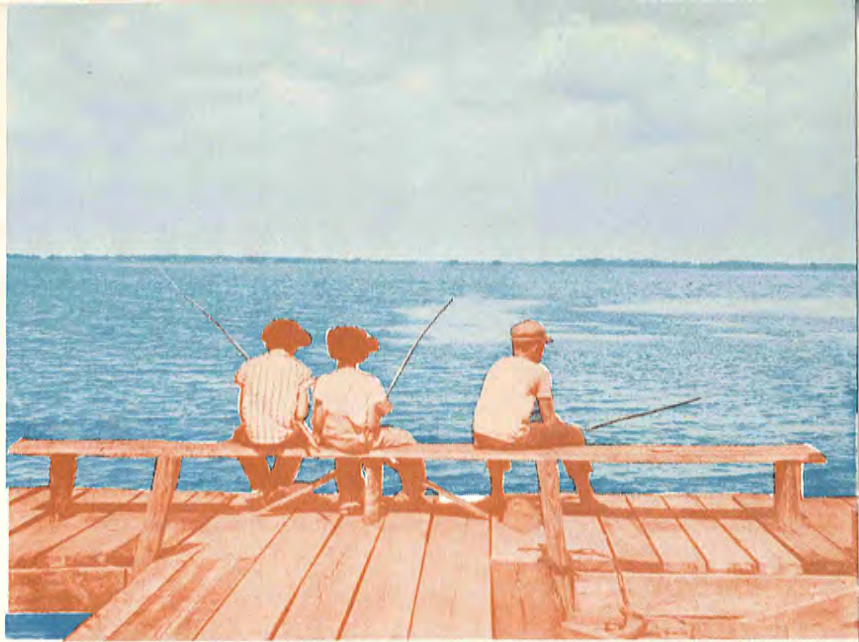
At the Highlands Reservoir, fishing has been provided since shortly after the Authority began active operation of the property. The reservoir is well stocked with fish and has become a favorite angling spot for the entire community. Boats and bait are available to the public, and all facilities are in full use in favorable weather.

The revenue returned to the Authority from this concession is slight and is not of primary concern. The Board of Directors feels,

however, that the pleasure derived by the public through use of available facilities is considerable.

Careful checks are made to protect the water supply system from pollution and to provide adequate health safeguards. No detrimental effects have been discovered from making the Authority's system available for recreational purposes.

Subject to its primary obligation to protect water supplies against pollution and unsanitary conditions, the San Jacinto River Authority intends to continue making available to the general public all its lakes and other improvements for fishing, boating, swimming, and other means of recreation.



## EXHIBIT "A" TO ACCOMPANY MASTER REPORT PLAN

### SCHEDULE OF DAMS—MASTER PLAN

NAME OF DAM	LOCATION	ACRES UNDER WATER	CAPACITY IN ACRE-FEET	DRAINAGE AREA IN SQUARE MILES	ELEVATION CREST OF DAM	ESTIMATED COST
<b>E. SAN JACINTO NO. 1</b>	Located on the East Fork of the San Jacinto River near Cleveland	5,950	107,000	307	167.0'	\$2,237,000
<b>*EAST SAN JACINTO NO. 0</b>	Located on the East Fork of the San Jacinto River just below its confluence with Luce Bayou	22,000	276,000	968	83.5'	6,335,000
<b>SAN JACINTO NO. 3</b>	Located on the West Fork of the San Jacinto River above Conroe near the dividing line of the John C. Clark and the John Cronkhite surveys	6,000	150,000	392.6	206.0'	3,750,000
<b>**LAKE CREEK NO. 1</b>	Located on Lake Creek in the Archibald Hodge Survey	6,000	105,000	271.5	175.0'	2,625,000

NAME OF DAM	LOCATION	ACRES UNDER WATER	CAPACITY IN ACRE-FEET	DRAINAGE AREA IN SQUARE MILES	ELEVATION CREST OF DAM	ESTIMATED COST
<b>CYPRESS CREEK NO. 1</b>	Located on Cypress Creek just above confluence of Spring and Cypress Creeks	5,500	104,000	270	85.0'	\$2,600,000
<b>CYPRESS CREEK NO. 2</b>	Located on Cypress Creek just West of Westfield	4,180	58,520	100	115.0'	1,500,000
<b>SAN JACINTO NO. 1</b>	Located on the West Fork of San Jacinto River at the confluence with Lake Creek	3,890	33,525	784	155.0'	925,000
<b>SAN JACINTO NO. 4</b>	Located on the West Fork of San Jacinto River in the J. Whitaker Survey, in Walker County	2,744	25,210	234.3	222.0'	700,000
<b>CANEY CREEK</b>	Located on Caney Creek in the B. Blake Survey	805	6,930	83		400,000

# EXHIBIT "A"

## SCHEDULE OF DAMS—MASTER PLAN

NAME OF DAM	LOCATION	ACRES UNDER WATER	CAPACITY IN ACRE-FEET	DRAINAGE AREA IN SQUARE MILES	ELEVATION CREST OF DAM	ESTIMATED COST
<b>SAN JACINTO NO. 2</b>	Located on the West Fork of the San Jacinto River near the dividing line of the C. Koenig & A. Palmer tracts in the J. W. Singleton Survey	1,032	5,830	428.6	170.0'	\$ 375,000
<b>PEACH CREEK NO. 1</b>	Located on Peach Creek Vicinity of Byspot	485	5,380			150,000
<b>**LAKE CREEK NO. 2</b>	Located on Lake Creek below the Santa Fe	1,018	3,075	212	200.0'	225,000
<b>PEACH CREEK NO. 2</b>	Located on Peach Creek upstream from Peach Creek No. 1	277	2,750	12.2	297.0'	200,000
<b>STEWART CREEK NO. 1</b>	Located on Stewart Creek in the edge of Conroe	300	2,400	13.3	208.0'	175,000
<b>SUB-TOTAL FOR DAM CONSTRUCTION</b>		60,181	885,620	*** (See Note 3 Below)		\$22,197,000

## CHANNEL RECTIFICATION

NAME OF CHANNEL	LOCATION	LENGTH IN MILES	ESTIMATED COST
<b>**LAKE CREEK</b>	Beginning above Richards and extending to North End of Lake Creek No. 2 near Dobbin	19	\$ 240,000
<b>CANEY CREEK (Grimes County)</b>	Beginning at the confluence with Lake Creek and extending Northwest	16	225,000
<b>GARRETT CREEK</b>	Beginning at the confluence with Lake Creek and extending Northwest	5	25,000
<b>WINTERS BAYOU</b>	Beginning at the Walker and San Jacinto County Line and extending Southeast to the vicinity of Hills Store	7	150,000
<b>ROBERTSON CREEK</b>	Beginning at the confluence with Lake Creek and extending Northeast	7	25,000
<b>MISCELLANEOUS</b>	Various creeks eliminating bends	10	300 000
<b>SUB TOTAL FOR CHANNEL RECTIFICATION</b>		<b>64</b>	<b>\$ 965,000</b>
<b>GRAND TOTAL</b>			<b>****\$23,162,000</b>

\*Note 1—Due to the proposed City of Houston dam on the San Jacinto, which would inundate the site of the E. San Jacinto No. 0, the Authority has dropped all construction plans for this installation.

\*\*Note 2—The Authority has substituted a single dam on Lake Creek, located approximately 2400 feet upstream from State Highway No. 105 crossing of Lake Creek. It is estimated construction of this dam will cost \$2,220,000. The Authority also proposes to include 27 miles of channel rectification below the proposed dam on Lake Creek at an estimated cost of \$865,000.

\*\*\*Note 3—Drainage Area West Fork San Jacinto—1857 Sq. Miles  
—Drainage Area East Fork San Jacinto—1030 Sq. Miles

TOTAL Drainage Area San Jacinto—2887 Sq. Miles  
(Confluence of Rivers)

\*\*\*\*Note 4—Estimated Costs (with the exception of the Lake Creek Dam and Channel Rectification) are based on 1943 Engineering Surveys and estimates.

## FINANCIAL STATEMENT OF SAN JACINTO RIVER AUTHORITY

CONROE, TEXAS

## BALANCE SHEET

AUGUST 31, 1951

## ASSETS

FIXED ASSETS	Operating Property: Canal and Reservoir	\$ 862,572.78	
	Land	5,442.96	
	Other Plant and Equipment	121,250.02	
	Total Operating Property—at cost		\$ 989,265.76
	Less—Reserve for Depreciation Other Plant		54,469.55
	Total Fixed Assets—Net		\$ 934,796.21
CURRENT ASSETS	Operating Funds:		
	Cash in Bank—General Fund—Conroe National	\$ 100,000.00	
	—General Fund—First National	188,884.75	
	—Petty Cash Account	500.00	
	—Payroll Account	3,500.00	
Cash on Hand—Petty Cash	100.00		
	Total Cash		\$ 292,984.75
	Accounts Receivable		56,322.81
	Total Current Assets		349,307.56
DEFERRED CHARGES	Prepaid Expense—Insurance	\$ 1,154.71	
	Engineering and Development Costs on Other Projects:		
	From Authority Funds	27,810.93	
	From Federal Funds:		
	Lake Creek Dam and Channel Improvement	30,000.00	
San Jacinto River Pumping Plant	10,000.00		
	Total Deferred Charges		68,965.64
TOTAL ASSETS			<u>\$1,353,069.41</u>

## LIABILITIES AND SURPLUS

LIABILITIES	Current Liabilities: Accounts Payable	\$ 102.30	
	Total Current Liabilities	\$ 102.30	
	Reserve for Project Maintenance, Canal and Reservoir	38,784.12	
	Total Liabilities		\$ 38,886.42
SURPLUS	Contributed Surplus: State of Texas—Tax Remission	\$1,082,515.81	
	Federal Planning Funds	40,000.00*	
	Total Contributed Surplus		\$1,122,515.81
	Earned Surplus Net Operating Revenues		278,955.63
	Sub-total		\$1,401,471.44
	Less—Expenditures not capitalized—Expenses incurred with preliminary Survey and Investigation, including Administrative Expense and Engineering and Development Costs	\$ 87,288.45	
	Amortization of Balance of Bond Premium and Expense due to Bond Redemption		
	Total Surplus		1,314,182.99
TOTAL LIABILITIES AND SURPLUS			<u>\$1,353,069.41</u>

\*Contingent Liability—Federal Works Agency Planning Loan Grant repayable if plans and specifications are used in construction.

## SURPLUS AND RESERVES

AUGUST 31, 1951

And Changes During the Year Then Ended

SURPLUS	Balance—September 1, 1950		\$1,191,263.96	
	Add: Net Operating Income for the year	\$ 56,340.82		
	State of Texas—Tax Remissions Received, September 1, 1950 to August 31, 1951	59,948.51		
		\$ 116,289.33		
	Amortized Bond Expense	6,629.70		
	Net Additions for the Year		122,919.03	
	Balance—August 31, 1951		\$1,314,182.99	
RESERVES	For Maintenance of Canal and Reservoir:			
	Balance—September 1, 1950	\$ 34,694.32		
	Add—Accrued Maintenance for the Period September 1, 1950 to August 31, 1951, Charged to Operations	\$ 17,500.00		
	Deduct—Maintenance Cost for the Period September 1, 1950 to August 31, 1951	13,410.20		
		4,089.80		
	Balance—August 31, 1951		38,784.12	
	Total Surplus and Reserves, August 31, 1951		<u>\$1,352,967.11</u>	
	Tax Remissions Received During the Current Year and the Total Amount Received to August 31, 1951 were as follows:			
COUNTY	Montgomery	Year Ended 8-31-1951	\$ 36,356.95	Total to 8-31-1951 \$ 901,383.52
	Walker		14,820.01	64,610.76
	San Jacinto		6,647.13	47,964.35
	Liberty		2,124.42	43,432.61
	State Treasurer			25,124.57*
			\$ 59,948.51	<u>\$1,082,515.81</u>

\*Taxes previously collected and erroneously sent by the Tax Collectors to the State Treasurer—refunded to the Authority in 1946-1947.

**MASTER PLAN MAP** EXHIBIT "C"



## Legend

RESERVOIRS OF THE AUTHORITY AND OTHER  
 CITIES, TOWNS, VILLAGES  
 AUTHORITY BOUNDARY LINES  
 COUNTY LINES

GRAPHIC SCALE IN MILES

0 1 2 3 4 5 6 7 8 9 10

MASTER PLAN CRITICAL DATA				
NAME OF DAM in PROPOSED ORDER OF CONSTRUCTION	ACRES UNDER WATER	CAPACITY IN ACRE FEET	DRAINAGE AREA IN SQ. MILES	ELEVATION OF CREST OF DAM
EAST SAN JACINTO No. 1	5950	107,000	307	167.0'
EAST SAN JACINTO No. 0	22000	276,000	968	83.5' (1)
SAN JACINTO No. 3	6000	150,000	392.6	206.0'
LAKE CREEK No. 1	6000	105,000	271.5	175.0' (2)
CYPRESS CREEK NO. 1	3500	104,000	270	85.0'
CYPRESS CREEK NO. 2	4180	58,520	100	115.0'
SAN JACINTO No. 1	3890	33,525	784	155.0'
SAN JACINTO No. 4	2744	25,210	234.3	222.0'
CANEY CREEK	805	6,930	83	170.0'
SAN JACINTO No. 2	1032	5,830	428.6	170.0'
PEACH CREEK No. 1	485	3,380	1018	200.0' (2)
LAKE CREEK No. 2	1018	3,075	212	297.0'
PEACH CREEK No. 2	277	2,750	13.3	208.0'
STEWART CREEK No. 1	300	2,400	13.3	208.0'
<b>TOTALS</b>	<b>60,181</b>	<b>885,620</b>		

CHANNEL RECTIFICATION	
NAME OF CREEK	LENGTH IN MILES
LAKE CREEK	19 (3)
CANEY CREEK (Grimes Co.)	16
GARRETT CREEK	5
WINTERS BAYOU	7
ROBERTSON CREEK	7
MISCELLANEOUS	10
<b>TOTAL</b>	<b>64</b>

CRITICAL DATA	
LAKE CREEK RESERVOIR AT DOBBIN	
DRAINAGE AREA	125 SQ. MILES
CAPACITY OF CONSERVATION POOL	32,500 AC. FT.
ELEVATION OF CONSERVATION POOL	227.0'
AREA OF CONSERVATION POOL	3,200 ACRES
CAPACITY AT SPILLWAY LEVEL	74,000 AC. FT.
ELEVATION OF SPILLWAY	237.0'
FLOOD STORAGE	41,500 AC. FT.
ELEVATION TOP OF DAM	253.0'

- The Authority proposes to modify the Master Plan as follows:
- (1) East San Jacinto No. 0 Dam eliminated to avoid backwater from proposed City of Houston Reservoir.
  - (2) Substitute for Lake Creek No. 1 and No. 2 Dams a single dam at Dobbin as shown on map and make this dam the first in order of construction. Critical data for the proposed single dam and reservoir are shown in table at right.
  - (3) Increase the length of Lake Creek Channel Rectification to 27 Miles.

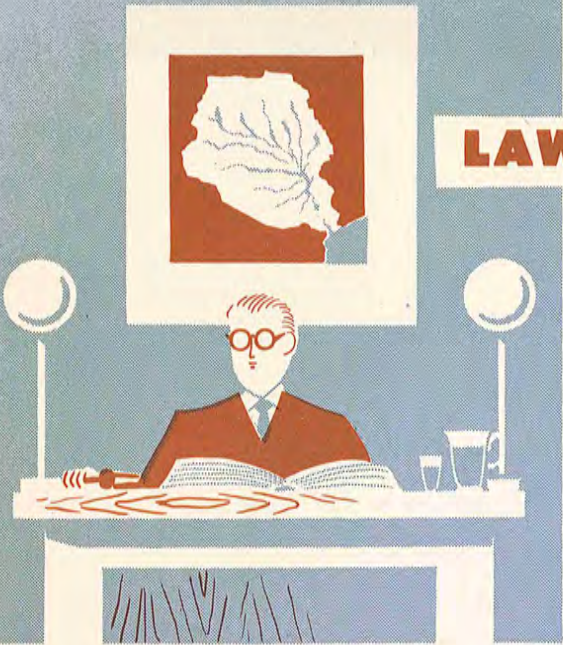
## THE SAN JACINTO RIVER AUTHORITY

FORMERLY THE SAN JACINTO RIVER CONSERVATION AND RECLAMATION DISTRICT

### MASTER PLAN SHOWING CONTEMPLATED DEVELOPMENT

# LAWS CREATING AND CONCERNING

## SAN JACINTO RIVER AUTHORITY



Acts 1937, 45th Leg., H.B. No. 832, creating the San Jacinto River Conservation and Reclamation District, reads as follows:

"Sec. 1. It being declared by Constitutional provision the policy of the State of Texas, Section 59, Article 16, to provide for the conservation and development of all the natural resources of the State, including the control, storing, preservation, and distribution of its storm and flood waters, the waters of its rivers and streams, for irrigation, power, and all other useful purposes, the reclamation and irrigation of its arid, semiarid, and other lands needing irrigation, the reclamation and drainage of its overflowed lands, and other lands needing drainage, the conservation and development of its forests, water and hydro-electric power, the navigation of its inland and coastal waters, and the preservation and conservation of all such natural resources of the State, are each and all hereby declared public rights and duties, which may be effected through the creation within the State, or the divisions of the State, into such number of conservation and reclamation districts as may be determined to be essential to the accomplishment of the purposes of the policy expressed in the Constitution of the State; such Districts to be governmental agencies and bodies politic and corporate, with all rights, privileges, and functions as may be conferred by law, there is hereby created the San Jacinto River Conservation and Reclamation District.

"Sec. 2. The San Jacinto River Conservation and Reclamation District is created as a governmental agency, a body politic and corporate, vested with all the authority as such under the Constitution and laws of the State; and shall have and be recognized to exercise all of the powers of such governmental agency and body politic and corporate as expressly authorized in the provisions

of the Constitution, Section 59 of Article 16, for Districts created to conserve, control, and utilize to beneficial service the storm and flood waters of rivers and streams of the State, or such powers as may be contemplated and implied by the purposes of this provision of the Constitution, and as may be conferred by General Law, and in the provisions of this Act; and shall have and be recognized to exercise all the rights and powers of an independent governmental agency, body politic and corporate, to formulate any and all plans deemed essential to the operation of the District and for its administration in the control, storing, preservation, and distribution to all useful purposes of the storm and flood waters of the San Jacinto River and its tributary streams; and as such district, shall have and be recognized to exercise such authority and power of control and regulation over such storm and flood waters of the San Jacinto River and its tributaries as may be exercised by the State of Texas, subject to the provisions of the Constitution and the Acts of the Legislature.

"Sec. 3. The San Jacinto River Conservation and Reclamation District shall have and be recognized to exercise, in addition to all the general powers vested by virtue of the Constitution and Statutes in a governmental agency and body politic and corporate, for the greatest practicable measure of the conservation and beneficial utilization of storm and flood waters, the powers of control and employment of such flood and storm waters of the said District in the manner and for the particular purposes hereinafter set forth:

"(a) To provide through every practical and legal means for the control and the coordination of the regulation of the waters of the watershed of the San Jacinto River and its tributaries as a unit, including the power to cooperate with the United States Government or any agency thereof in effecting such purposes.

"(b) To provide by adequate organization and administration for the preservation of the equitable rights of the people of the different sections of the watershed area of the beneficial use of storm and flood waters of the San Jacinto River and its tributary streams.

"(c) For storing, controlling, and conserving storm and flood waters of the San Jacinto River and its tributaries, and the prevention of the escape of any of such waters without the maximum of public services; for the prevention of devastation of lands from recurrent overflows, and the protection of life and property in such watershed area from uncontrolled flood waters.

"(d) For the conservation of waters essential for the domestic uses of the people of the watershed of the

Footnote: Wherever the name San Jacinto River Conservation and Reclamation District or any reference thereto appears in the statutes or laws, or any amendments thereto, such name reference shall hereafter mean, and apply to, the San Jacinto River Authority. S. B. 224, Acts, 52nd Legislature, 1951.





San Jacinto River and its tributaries, including all necessary water supplies for cities and towns.

"(e) For the irrigation of lands in the watershed of the San Jacinto River and its tributary streams where irrigation is required for agricultural purposes or may be deemed helpful to more profitable agricultural production; and for the equitable distribution of storm and flood waters to the regional potential requirements for all uses, domestic, manufacturing, and irrigation. All plans and all works provided by said District and as well, all works which may be provided under authority of said District, should have primary regard to the necessary and potential needs for water, by or within the respective areas constituting the watershed of the San Jacinto River and its tributary streams.

"(f) For the better encouragement and development of drainage systems and provisions for drainage of lands in the valleys of the San Jacinto River and its tributary streams needing drainage for profitable agricultural production and drainage for other lands in the watershed area of the District requiring drainage for the most advantageous use.

"(g) For the purpose of encouraging the conservation of all soils against destructive erosion and thereby preventing the increased flood menace incident thereto.

"(h) To control and make available for employment flood and storm waters in the development of commercial and industrial enterprises in all sections of the watershed area of the District.

"(i) For the control, storing, and employment of flood and storm waters in the development and distribution of hydro-electric power, where such use may be economically coordinated with other and superior uses, and subordinated to the uses declared by law to be superior.

"(j) For the encouragement, aid, and protection of navigation, and the protection of harbor improvements.

"(k) And for each and every purpose for which flood and storm waters when controlled and conserved may be utilized in the performance of a useful service as contemplated and authorized by the provisions of the Constitution and the public policy therein declared.

"(l) To forest and reforest and to aid in the foresting and reforesting of the watershed area of the San Jacinto River and its tributaries and to prevent and aid in the prevention of soil erosion and floods in, on, and upon all lands situated within the boundaries of said District;

(m) The District shall be authorized and have the power through its board of Directors to establish and collect rates and other charges for the sale or use of water, water connections, power, electric energy, and other services sold, furnished, or supplied by the District, which fees and charges shall be reasonable and nondiscriminatory and sufficient to produce revenue adequate:

"1. To pay expenses necessary to the operation and maintenance of the properties and facilities of the District;

"2. To pay the interest on or the principal of bonds or other obligations issued by the District when and as same become due and payable;

"3. To pay such other expenses as the Board of Directors shall deem necessary and proper for any purpose in corporate operations and functions of the District.

"Provided, that nothing herein shall be construed as depriving the State of Texas, through the State Board of Water Engineers under the applicable provisions of Chapter 1, Title 128 of the Revised Civil Statutes of Texas, 1925, of its power to regulate and control fees and/or charges to be collected for the use of water or other service.

"(n) The San Jacinto River Conservation and Reclamation District shall also have full power and authority by and through its Board of Directors to enter into any and all necessary and proper contracts with other agencies, districts, and bodies politic and corporate, and others, to make and enter into such cooperative and coordinative contracts with such agencies, districts, and bodies politic and corporate, and others as the Board of Directors may deem necessary and proper for the purpose of the construction, operation, and maintenance of water storage reservoirs, dams, canals, waterways, and water lines of all kinds, and all other necessary and proper structures, facilities, and equipment in connection therewith, and any and all necessary facilities and equipment for the manufacture, sale, and transportation of hydro-electric power, and for the storage, conservation, utilization, transportation, and sale of such impounded waters and hydro-electric power to cities, towns, industrial sites, persons, firms, and corporations within or without the boundaries of the District, and the power to pledge its funds and its other assets or any part thereof for the purpose of the achievements of the plan or plans as approved by the State Board of Water Engineers and under its continuing supervision and control.

"(o) Said District shall have the power by its contracts to authorize and allow any of such other districts, agencies, and bodies politic and corporate and individuals to participate in the joint construction, operation, and

maintenance of all of said water storage reservoirs, dams, canals, waterways, and water lines and all other structures, facilities, and equipment in connection therewith, and all necessary facilities for the manufacture, sale, and transportation of such hydro-electric power, along with said District, and said District may by such contracts allow such other agencies, districts, and bodies politic and corporate, and others to receive such portion of the revenues derived from the sale of water and hydro-electric power as the Board of Directors shall deem just, equitable, and proper.

"Sec. 4. The powers and duties herein devolved upon the San Jacinto River Conservation and Reclamation District are recognized to be taken subject to all legislative declarations of public policy in the maximum utilization of the storm and flood waters of the State for the purposes for which the District is created, as expressed and indicated in this Act, and subject to the continuing rights of supervision by the State which shall be exercised through the State Board of Water Engineers, and in appropriate instances, by the State Reclamation Engineer, each of which agencies shall be charged with the authority and duty to approve, or to refuse to approve, the adequacy of any plan or plans for flood control or conservation improvement purposes devised by the District for the achievement of the plans and purposes intended in the creation of the District, and which plans contemplate improvements supervised by the respective State authorities under the provisions of the General Law.

"Sec. 5. The area of said District is hereby established to comprise all the territory within the watershed of the San Jacinto River and its tributary streams, save and except that portion of said watershed lying and being situated within the boundaries of Harris County, which is hereby expressly excluded from the boundaries of said District. Provided, that prior to September 1, 1941, the actual boundaries of said District shall be established by the Reclamation Department of the General Land Office, so that the same may be expressed in written calls of the metes and bounds of said District. The written description of said boundaries shall be certified by the Commissioner of the General Land Office, approved by the State Board of Water Engineers, and recorded in the minutes of said District. The Board of Directors shall cause a copy of said certified boundaries to be filed and recorded in the office of the County Clerk of each county lying in whole or in part within the boundaries of said District, and shall also file a copy thereof, together with a map showing said boundaries with the Tax Assessor and Collector of each of the counties lying in whole or in part within said District.

"Sec. 6. The management and control of all the affairs of said District shall be vested in, and the powers, rights, privileges, and functions of the District shall be exercised by a Board of Directors consisting of six (6) members, all of whom shall be freehold property tax-

payers and legal voters of the State of Texas. Members of such Board of Directors shall be appointed by the State Board of Water Engineers for terms of six (6) years. Provided, the present Board of six (6) directors of said District, appointed by the State Board of Water Engineers under authority of House Bill No. 1094, Chapter 613, Acts of the Regular Session of the Forty-Seventh Legislature, amending Section 6 of Chapter 426, Acts of the Regular Session of the Forty-fifth Legislature, as amended by House Bill No. 828, Chapter 480, Acts of the Regular Session of the Forty-seventh Legislature, for terms of two (2), four (4), and six (6) years, shall continue to serve as such until the expiration of the respective terms for which they were appointed. Upon the expiration of the terms for which the present members of the Board of Directors were appointed, the successors of each and all of them shall be appointed by the State Board of Water Engineers for a term of six (6) years.

"The Directors shall hold office after their appointment and qualification until their successors shall be appointed and qualified. Should any vacancy occur in the Board of Directors, the same shall be filled in like manner by the State Board of Water Engineers for the unexpired term. The Directors appointed shall, within thirty (30) days after their appointment, qualify by taking the official oath required of County Commissioners, and shall execute bond in the sum of Five Thousand Dollars (\$5,000) payable to the District, the sufficiency of which bond shall be determined by the State Board of Water Engineers, which bonds after being recorded in the official bond records of the county in which the District maintains its office shall be deposited with the depository selected and approved for the deposit of the funds of the District.

"The Board of Directors shall organize by electing one of its members President, one Vice-President, one Secretary, and one Treasurer. Four (4) members, including the presiding officer, shall constitute a quorum to transact business. The President shall preside at all meetings of the Board and shall be the chief executive officer of the District. The Vice-President shall act as President in case of the absence or disability of the President. The Secretary shall act as Secretary of the Board and shall be charged with the duty of keeping a record of all proceedings and all orders of the Board. The Treasurer shall receive and receipt for all moneys received by the District and shall keep books and records of all moneys received and expended. In case of the absence or inability of the Secretary to act, a Secretary pro tem shall be selected by the Directors.

"The domicile of the District shall be in the City of Conroe, in the County of Montgomery, Texas, where the District shall maintain its principal office. The Board of Directors shall have authority to fix the time, place and number of meetings of such Board by proper resolutions, regulations and bylaws passed by said Board. Said

Board shall cause to be kept complete and accurate accounts conforming to approved methods of bookkeeping. Said accounts and all contracts, documents, and records of the District shall be kept at said principal office, and same shall be open to public inspection at all reasonable times.

"Sec. 7. The Board of Directors shall have all powers, both express and implied, to do and perform any and all acts for and on behalf of the District which are authorized by the Constitution and laws of the United States of America and the State of Texas for the purpose of the achievement of the plans and purposes intended in the creation of the District, and which plans contemplate improvements supervised by the respective State authorities under the provisions of the General Law; and said Board of Directors shall have full and complete authority to do any and all acts necessary or convenient to the exercise of the powers, privileges, and functions conferred upon said District and its Board of Directors by this Act or any other Act or Law.

"The Board of Directors is hereby authorized and directed to make or cause to be made surveys and engineering investigations for the information of the District and determine the plans necessary to the accomplishment of the purposes for which the District is created, and may employ engineers, attorneys, and all other technical and non-technical assistants or employees and fix and provide the amount and manner of their compensation for the making of such surveys, the preparation of plans, and the collection of data essential to the determination of the character, extent, and cost of all improvements essential for the control of storm and flood waters of the District and their distribution to beneficial use in any and all practicable means, within or without the boundaries of the District, and for expenditures found essential in the maintenance and administration of the District. The members of the Board of Directors shall receive a per diem of not more than Ten Dollars (\$10) per day for the period served, together with traveling and other necessary expenses. Provided, this per diem shall not exceed Three Hundred and Sixty Dollars (\$360) per member in any one year. Any director may perform any service required by the Board, but in such case may not receive the per diem and other compensation at the same time.

"Sec. 8. For the purpose of providing funds requisite to procure necessary engineering surveys, the collection and compilation of data respecting regional and general conditions entering into and influencing the character and extent of the improvements necessary to the storage, control, conservation, and equitable distribution, to the greatest public advantage of such flood waters when stored and controlled, it is hereby provided that any county lying in whole or in part within the area of the temporary District, as herein defined, may contribute to the funds from year to year for such engineering surveys and the

compilation of data essential to the progress of flood control improvement in such amount as may be deemed an equitable part of the cost of such surveys and the compilation of necessary information in the estimated relations of such expenditures to the contemplated and probable benefit to be secured to the respective counties from the accomplishment of the plans and purposes of the creation of the District, and for the provision of such fund may make the necessary collections through their respective general funds, or may appropriate the amount of the estimated equitable contribution of such costs of developing essential engineering data from their general fund.

"Sec. 9. The San Jacinto River Conservation and Reclamation District is hereby declared to be a Conservation and Reclamation District, having all and singular, the powers, duties, functions, and to observe procedures in so far as the same may be applicable and practicable, to accomplish the purposes of this Act, as is provided by Chapter 25 of the General Laws of the Thirty-ninth Legislature, Regular Session, and the several Amendments thereof; provided however, that the provisions of said Chapter 25, and the subsequent Amendments thereto, shall not apply to any matter specifically provided for herein, or expressly or impliedly excluded, relating to the creation of a district, and to the issuance of preliminary bonds to finance the making of investigations upon which to base a plan for improvements and the levy of a tax therefor. It is, however, provided that the District may upon a vote of the qualified electors issue such preliminary bonds and levy a tax to retire the same, which tax may be in addition to all other taxes hereby authorized; Section 15 of Chapter 280, General and Special Laws of the Forty-first Legislature of Texas, Regular Session, amending said Chapter 25, General Laws of the Thirty-ninth Legislature, Regular Session, and Section 6 of Chapter 107 of the General and Special Laws of the Fortieth Legislature, First Called Session, amending said Chapter 25, shall not control this District, but in lieu thereof it is specifically provided as follows:

"(a) After the completion and approval of a plan for the coordination of improvements deemed adequate to serve said watershed as a whole, as herein provided for, the State Board of Water Engineers and the Reclamation Department of the General Land Office of Texas in authorizing improvements to control the waters of, and or in allocating the right to use waters from said San Jacinto River and its tributaries shall substantially conform to, and shall effectually preserve the benefits of, the plan formulated by this District, and said District shall have the right to enforce the observance of the same by judicial decree.

"(b) This District shall have the power to provide and maintain improvements for the common benefit of said District as a whole, subject only in appropriate case

to the constitutional and statutory provisions concerning a vote by the qualified electors of the District.

"(c) Especially shall said District have all and singular the powers contained in Section 15 of said Chapter 280, General and Special Laws of the Forty-first Legislature, relating to improvements peculiar to defined areas within a district.

"(d) It is, however, further provided that if the electors of any defined area within this District desire they may become a water control and improvement district for the purpose of independently providing, operating, and maintaining improvements designed peculiarly to serve such defined areas. Such contained defined area may be so constituted under the applicable provisions of said Chapter 25 of the General Laws of the Regular Session of the Thirty-ninth Legislature. In like manner any other political subdivision of the State of Texas being in whole or in part in this District may independently provide, maintain, and operate works peculiarly designed to benefit such body politic. In either case, however, such works and the operation thereof shall be constructed and operated in such manner as will conform to this District's plan to the greatest practicable degree.

"(e) To the extent necessary to enable this District to construct, maintain, and operate works beneficial to the District as a whole, or to give supervision, or to perform any service inuring to the benefit of the District as a whole and provide funds adequate to defray the cost of the administration to this District, it shall have power to levy and collect taxes, equitably distributed, which taxes shall be in addition to other taxes that may lawfully be levied by the State and other political subdivisions thereof.

"(f) This Legislature finds and declares that the recurrent, devastating floods in the valley of the San Jacinto River, which have, over a long period of years, caused a deplorable loss of life and property, and the erosion of the soil, and a depletion of the fertility of the lands in said valley and the watershed served by the San Jacinto River in Texas, and the public highways and structures and lands belonging to the State of Texas situated within said watershed, to be a public calamity, and the San Jacinto River Conservation and Reclamation District is hereby authorized to do any and all things necessary or suitable for the prevention of such public calamity.

"Sec. 10. The San Jacinto River Conservation and Reclamation District shall not be authorized to issue bonds nor to incur any form of continuing obligations or indebtedness for purposes of effecting improvements comprehended in the plan of organization and administration of the District, nor incur any indebtedness in the form of a continuing charge upon land or properties within the District, unless such proposition shall have been submitted to the qualified property taxpaying voters of the

District, or, in appropriate case, such voters of a defined area or political subdivision within the District, and approved by a majority of such electors voting thereon.

"Sec. 10a. The Board of Directors of the San Jacinto River Conservation and Reclamation District, a State Agency, shall have full authority to negotiate and deal and/or contract with the United States of America or with any of its governmental agencies now in existence or that may hereafter come into existence and/or others for grants, and/or loans and/or allotments and is hereby granted the right and power to receive and accept grants and/or loans and/or allotments from the United States of America and/or others for the purpose of making investigations and assembling data and/or for any one or more purposes set forth in this Act and/or the Act creating the San Jacinto Conservation and Reclamation District and to receive and use said moneys for the purpose mentioned in said Acts.

"Sec. 10b. The District shall have the authority and is hereby authorized to issue its negotiable bonds, secured only by the current revenues of the District in any such amounts as may be authorized by the Directors of such District, for the purpose of making investigations, assembling data and for the purpose of purchasing, acquiring, and/or condemning lands, leases, easements and/or acquittances, right of ways, structures and/or buildings, equipments and/or operation of proper structures, dams, reservoirs, suitable for the control of the recurrent, devastating floods in the valley of the San Jacinto River, which have, over a long period of years, caused a deplorable loss of life and property, and the erosion of the soil and depletion of the fertility of the lands of said valley and the watershed served by the San Jacinto River in Texas, and the public highways and structures situated in said watershed; all of which is hereby declared to be a public calamity, and in doing all things necessary in the execution for the purpose for which the District is created and exists. And provided that if and when the Legislature remits the ad valorem tax in the counties for a certain period of years, the Directors may in their discretion if necessary with the approval of the Commissioners



Court of the county in the watershed use part or all of the taxes remitted to said counties for the purpose of paying back to the United States of America or any of its agencies or others the money borrowed by the District for the purpose herein mentioned.

"Sec. 10c. The bonds issued by the authority of this Act may either be (1) sold for cash, at public or private sale, at such price or prices as the Board of Directors shall determine, not to be for less than par and accrued interest, provided that the interest cost of the money received therefor, computed to maturity in accordance with the standard bonds tables in general use by banks and insurance companies, shall not exceed (5) per cent per annum, or (2) may be issued on such terms as the Board of Directors shall deem necessary or convenient for any corporate purpose, or (3) may be issued to refund any bonds issued at any time under authority of this Act. All such bonds shall be authorized by resolution or resolutions of the Board of Directors concurred in by a majority of the members of the Board, and shall bear such date or dates, made at such time or times, bear interest at such rate or rates (not exceeding five (5) per cent per annum) payable annually or semiannually, that such denominations be in such form, either coupon or registered, carrying such registered privileges as to principal only or as to both principal and interest, and as to exchange of coupon bonds for registered bonds or vice versa, in exchange of bonds of one denomination for bonds of other denominations, be executed in such manner and be payable at such place or places within or without the State of Texas, as such resolution or resolutions may provide. Any resolution or resolutions authorizing any bonds may contain provisions, which shall be part of the contract between the directors and the bondholders thereof from time to time.

"(a) Reserving the right to redeem such bonds at such time or times, in such amounts and at such prices not exceeding one hundred and two (102) per cent of the principal amount thereof, plus accrued interest, as may be provided;

"(b) Providing for the setting aside of sinking funds or reserve funds and the regulation and disposition thereof;

"(c) Pledging to secure the payment of the principal and interest on such bonds and the sinking fund or reserve fund payments agreed to be made in respect to such bonds all or any parts of the moneys that may be donated and/or granted herein by the State of Texas and all or any part of the gross or net revenues hereafter received by the district in respect of the property, real, personal, or mixed, to be acquired and/or constructed with such bonds or with proceeds thereof, or all or any part of the gross or net revenues thereafter received by the District from whatsoever source derived;

"(d) Prescribing the purposes to which such bonds or any bonds thereafter to be issued or the proceeds thereof, may be applied;

"(e) Agreeing to fix and collect rates and charges sufficient to produce revenues together with the moneys that may be granted and/or donated by the State of Texas adequate to pay the items specified herein, and prescribing the use and disposition of all revenues;

"(f) Prescribing limitations upon the issuance of additional bonds and upon all agreements which may be made with the purchaser and successive bondholders;

"(g) With regard to the construction, extension, improvement, operation, maintenance, depreciation, replacement, and betterments of the properties of the District and carrying of insurance upon all or any part of said property covering loss or damage or loss of use and occupancy resulting from specified risks;

"(h) Fixing the procedure, if any, by which, if the District shall so desire, the terms of any contract with bondholders of such bonds may be amended or abrogated, the amount of bonds the holders of such must consent thereto, and the manner in which such consent shall be evidenced, for the execution and delivery by the district to the bank or trust company authorized by law to accept such trust, or to the United States of America or any office or agency thereof, of indentures or agreements therein authorized to be made with all for the benefit of the holders of such bonds and such other provisions as may be contained in such indentures or agreements; and

"(i) Such other provisions not inconsistent with provisions of this Act as the Board may approve.

"Any such resolution and any indenture or agreement entered into pursuant thereto may provide that in the event that,

"(1a) Defaults may be made in the payment of the interest on any or all bonds when and as the same shall become due and payable, or

"(1b) Defaults shall be made in payment of the principal of any or all bonds when and as the same shall become due and payable, whether at maturity thereof, by call for redemption or otherwise, or

"(1c) Defaults shall be made in the performance in agreement made with purchasers or successive holders of any bonds, and such defaults shall have continued for such period, if any, as may be prescribed by said resolution in respect thereof, the trustee under the indenture or indenture entered into in respect of the bonds authorized, and by, or, if there shall be in such indenture, a trustee appointed in the manner provided in such resolution or resolutions by the bondholders of twenty-five (25) per cent aggregate principal amount of the bonds authorized hereby and at the time outstanding may, and upon the written request of the holders of twenty-five (25) per cent in aggregate principal amount of the bonds authorized by such resolution or resolutions at the time outstanding, shall, in his or its own name, be for the equal and proportionate benefit of the holders of all such bonds;

and with or without having possession thereof for the holders of all such bonds;

"(1) By mandamus or suit, action or proceeding at law or in equity, enforce all rights of the holders of such bonds,

"(2) Bring suit upon such bonds and/or appurtenant coupons,

"(3) By action or suit in equity requiring the Directors to act as if they were the trustees of an express trust for the bondholders,

"(4) By action or suit in equity enjoin any act or things which may be unlawful or in violation of the rights of the holders of such bonds, and/or

"(5) After such notice to the Directors as such resolution may provide, declare the principal of all of such bonds due and payable and if all defaults shall be made good, then with the written consent of the holders of twenty-five (25) per cent aggregate principal amount of such bonds at the time outstanding, annul such declaration and its consequences; provided, however, that the bondholders of more than the majority and principal amounts of bonds authorized thereby and at the time outstanding shall by instrument or instruments in writing delivered to such trustee, have the right to direct and control any and all actions taken or to be taken by such trustee under this paragraph. Such resolution, indenture or agreement may provide that in any such suit, action or proceeding, any such trustee, whether or not all of such bonds shall have been declared due and payable, and with or without possession of any thereof, shall be entitled as of right to the appointment of a receiver who may enter and take possession of all or any part of the properties of the District, and operate and maintain the same, and fix, collect and receive rates and charges that together with the moneys that may be granted and/or donated by the State of Texas will be sufficient to provide revenues adequate to pay the items set forth herein, and cost and disbursements of such suit, action or proceeding, and to apply such revenue in conformity with the provisions of this Act and the resolution or resolutions authorizing such bonds. In any suit, action or proceeding by any such trustee or receivers, if any, counsel fees and expenses of such trustee and of receiver or receivers, if any, shall constitute taxable disbursements and all costs and disbursements allowed by the Court shall be a fixed charge upon any revenue pledged to secure the payment of such bonds. In addition to the powers hereinabove specifically provided for, each trustee shall have and possess all powers necessary or appropriate for the exercise of any thereof, or incident to the general representation of the bondholders in enforcement of their rights.

"Before any bonds shall be sold by the District, a certified copy of the proceedings for the issuance thereof,

including the term of such bonds, together with any other information which the Attorney General of the State of Texas may require, shall be submitted to the Attorney General, and if he shall find that such bonds have been issued in accordance with law, and he shall approve such bonds, he shall execute a certificate to that effect which shall be filed in the office of the Comptroller of the State of Texas and be recorded in a record kept for that purpose. No bonds shall be issued until the same shall have been registered by the Comptroller who shall so register the same if the Attorney General shall have filed with the Comptroller his certificate approving the bonds and the proceedings for the issuance thereof as hereinabove provided.

"All bonds approved by the Attorney General as aforesaid, and registered by the Comptroller as aforesaid, and issued in accordance with proceedings so approved shall be valid and binding obligations of the District and shall be incontestable for any cause from and after the time of such registration.

"Sec. 10d. Nothing in this Act shall be construed as authorizing the District, and it shall not be authorized to mortgage, or otherwise encumber any of its property of any kind, real, personal, or mixed, or any interest therein, or to acquire any such property or interest subject to a mortgage or conditional sale, provided that this Section shall not be construed as preventing the pledging of the revenue of the District as herein authorized. Nothing in this Act shall be construed as authorizing the sale, release or other disposition of any such property or interest by the District, or any receiver of any of the District property, or through any Court proceedings, or otherwise; provided, however, that the District may sell for cash any such property or interest in an aggregate value not exceeding the sum of One Hundred Thousand Dollars (\$100,000) in any one year if the Board by affirmative vote of a majority of its members shall have determined that the property or interest is not necessary to the business of the District, and shall have approved the terms of any such sale, it being the intention of this Act that except by sale as in this section expressly authorized, no such property or interest shall ever come into the ownership or control, directly or indirectly, of any person, firm, or corporation other than a public authority created under the laws of the State of Texas. All property of the District shall be at all times exempted from forced sale, and nothing in this Act contained shall authorize the sale of any of the property of the District under any judgment rendered in any suit and such sales are hereby prohibited and forbidden.

"Sec. 10e. The District shall have the power and is hereby authorized to acquire by purchase, lease, gift, or in any other manner (otherwise than by condemnation) and to maintain, use and operate any and all property of any kind, real, personal, or mixed, or any interest therein, within or without the boundaries of the District



necessary or convenient to the exercise of the powers, rights, privileges, and functions conferred upon it by this Act.

"The District shall have the power and right of eminent domain for the purpose of acquiring by condemnation any and all property of any kind, real, personal, or mixed, or any interest therein, within or without the boundaries of the District (other than such property of or any interest therein without the boundaries of the District as may at the time be owned by any body politic) necessary or convenient to the exercise of the powers, rights, privileges, and functions conferred upon it by this Act in the manner provided by General Law with respect to condemnation, or at the option of the District, in the manner provided by Statutes relative to condemnation by Districts organized under General Law pursuant to Section 59 of Article 16 of the Constitution of the State of Texas.

"In condemnation proceedings, being prosecuted by said District, the District shall not be required to give bond for appeal or bond for costs.

"The District shall have the power and authority to overflow, and inundate any public lands and public property and to require the relocation of roads and highways in the manner and to the extent permitted to Districts organized under General Law pursuant to Section 59 of Article 16 of the Constitution of the State of Texas.

"Sec. 10f. The Board of Directors shall have authority to make all necessary rules and regulations for the government and control of the District not inconsistent with the Constitution and Laws of the State of Texas.

"Sec. 11. Repealed.

"Sec. 12. In the prosecution of the plans for which the District has been created for the storing, controlling, conserving, and distributing to useful purposes the storm and flood waters of the San Jacinto River watershed, the District shall be recognized to have the right to make use of the bed and banks of the San Jacinto River and of its tributary streams of any and all purposes necessary to the accomplishment of the plans of the District.

"Sec. 13. If any provisions of this Act, or any of the methods by which the Act is designed to become

effective to the accomplishment of the purposes contemplated and expressed, shall be held invalid, such holding shall not affect the creation of the District or the validity of any of the other provisions of the Act.

"Sec. 14. The importance of this legislation to a very large area of the most productive agricultural and other lands of the State, and the fact that the limited time remaining of this Session of the Legislature creates an emergency and an imperative public necessity that the Constitutional Rule requiring bills to be read on three several days be suspended, and that this Act be placed upon its third reading and final passage, and said Rule is hereby suspended, and this Act shall take effect from and after its passage, and it is so enacted."

\* \* \* \* \*

Acts 1939, 46th Leg., Spec. L., p. 984, relating to a donation to the San Jacinto River Conservation and Reclamation District of fifty per cent of State ad valorem taxes collected in counties of the District for a ten year period, reads as follows:

"Section 1. The purpose of this Act is to further carry out the command to the Legislature contained in Article 16, Section 59a of the Constitution of the State of Texas to pass such laws as may be appropriate to the conservation and development of all the natural resources of this State, including the control, storing, preservation, and distribution of its storm and flood waters, the waters of its rivers and streams, for irrigation, power, and all other useful purposes, the reclamation and irrigation of its arid, semiarid, and other lands needing drainage, the conservation and development of its forest, water, and hydroelectric power, the preservation and conservation of all such natural resources in said District by aiding said District in carrying out the powers, duties, and functions conferred upon such District under and by virtue of the Act creating the San Jacinto River Conservation and Reclamation District, and in the promotion of the comfort, health, and general welfare of the citizens of such District. The grants and aids hereinabove set out are made and authorized by this Act.

"Sec. 2. For a period of ten (10) years or for such portion of such period as may be required, but no longer, and commencing with the fiscal year beginning September 1, 1939, there is hereby donated and granted by the State of Texas to the San Jacinto River Conservation and Reclamation District fifty (50) per cent of all State ad valorem taxes collected for General Revenue purposes upon the property and from persons in the Counties of Montgomery, Walker, San Jacinto, and all that part of Liberty County embraced in the San Jacinto Watershed, said counties comprising in whole or in part the respective District hereinabove set out, and shall include the rolling stock belonging to railroad companies which shall be ascertained and apportioned as now provided by law. The taxes hereby donated shall be used by the respective District for the purpose of carrying out the powers, duties,

and functions conferred upon such District by the Legislature of the State of Texas, provided, however, that the taxes herein donated and granted in the Counties of Walker and San Jacinto shall not apply, nor be allocated or donated in this Act, until the provisions of Senate Bill No. 89, passed at the Regular Session of the Forty-sixth Legislature, become inoperative; however, in that event taxes accruing in the counties hereinabove named shall apply and be donated as is provided herein for the other counties embraced in this Act, and provided further that all that part of Liberty County embraced in the San Jacinto Watershed shall be embraced in this Act, and all taxes inuring from that portion of such County shall be allocated and donated to the San Jacinto River Conservation and Reclamation District as hereinabove provided.

"Sec. 3. At the end of each month, the Assessor-Collector of Taxes of any county named in this Act shall on forms to be furnished by the Comptroller of Public Accounts make an itemized report, under oath, to said Comptroller of Public Accounts, showing State ad valorem taxes collected by him for General Revenue purposes as provided for in this Act, upon the property and from persons within any such county or part of county and accompany the same with a summarized statement showing disposition of such State taxes collected. Such Assessor-Collector shall forward his report to the Comptroller of Public Accounts and shall pay over to the Treasurer, or other officer authorized to receive and receipt for funds, of the San Jacinto River Conservation and Reclamation District, in which such county or part of county is located, fifty (50) per cent of all State ad valorem taxes collected by him during said month, under the provisions of this Act, except such amounts as are allowed by law for assessing and collecting the same, and shall forward a duplicate copy of the receipt given him by the Treasurer, or other officer of the District, for such moneys to the Comptroller of Public Accounts at Austin, Texas.

"The Board of Directors of the District hereinabove mentioned shall, on or before the first day of January of each year, cause to be made an itemized statement, under oath and in triplicate, showing the amount of money received by such District under this Act during the next preceding year ending August 31st, and showing how, to whom, and for what purpose the same has been expended. One copy of each statement, after having been audited, shall be forwarded to the Comptroller of Public Accounts, the statement shall be sworn to by the Treasurer and Secretary of the District named in this Act, and the corrections thereof shall be certified by the State Auditor, which Auditor shall, while auditing said statement, have before him all vouchers upon which expenditures have been made from said fund, and no item or expenditure shall be allowed or passed by the Auditor unless he have in his possession legal and proper vouchers therefor, showing compliance with this Act. Upon the completion of the audit, a copy of the report and all vouchers shall

be attached together, numbered consecutively, and by the Auditor returned to and thereafter be safely kept by the Secretary of the San Jacinto River Conservation and Reclamation District.

"Sec. 4. The Treasurer of the San Jacinto River Conservation and Reclamation District shall, at the end of each month, make an itemized report, under oath, to the Comptroller of Public Accounts, showing the amount of money received by him from the Assessor-Collector of Taxes for the Counties of Montgomery, Walker, San Jacinto, and all that part of Liberty County embraced in the San Jacinto Watershed.

"Sec. 5. It is hereby expressly provided that this Act shall in no wise affect any tax donation heretofore made and now in effect to the San Jacinto River Conservation and Reclamation District."

\* \* \* \*

Acts 1947, 50th Leg., p. 1071, ch. 457, Sec. 1, extended the allocation of taxes for certain public agencies mentioned in the preamble including the San Jacinto River Conservation and Reclamation District. Section 1a, added by Acts 1949, 51st Leg. p. 572, ch. 309, read in part as follows:

"Section 1-a. In addition to the specific relief granted to each such Public Agency by Section 1 hereof, and without restricting or otherwise limiting the terms or conditions of the original acts, amendments or extensions of the laws applicable to such Public Agency and in recognition of the failure of the State to levy the State ad valorem tax for general revenue purposes for the year 1948, the following additional relief is hereby provided for each of such Agencies hereinafter named by an allocation and donation to each represented by an extension as to time, percentage or area in order that each such Agency may receive an amount equal but not in excess of the amount that each would have received had such tax been levied for the year 1948, and limited to the amount actually received by such Agency by reason of the 1947 levy during the fiscal year from September 1, 1947, to August 31, 1948, as shown by the records of the State Comptroller's Office, and any moneys collected from such levies in such donation areas in excess thereof shall be transmitted to the State Treasury by the proper officials of each such county.

"For the San Jacinto River Conservation and Reclamation District, there is hereby allocated to, and such Public Agency shall be entitled to receive in addition to the funds provided in its original, amended or extended acts, and subject to the limitation of the total amount above, an additional fifty per cent (50%) of all of the State ad valorem taxes for general revenue purposes levied for each of the years 1949 and 1950 and collected in each of the fiscal years 1949-50 and 1950-51 in the Counties of Montgomery, Walker, San Jacinto and all that part of Liberty County embraced in the San Jacinto River watershed, as provided in the original acts, based on the current assessed valuations for such said years."



## MASTER PLAN APPROVED:

The Master Plan of the San Jacinto River Authority (consisting of pages two through five, fourteen through twenty-six, and page twenty-nine) has been approved as required by law.

### SAN JACINTO RIVER AUTHORITY

#### Board of Directors

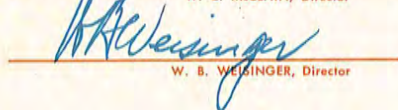
  
W. G. HALL, President

  
C. A. DEESE, Secretary

  
SETH W. DORBANDT, Treasurer

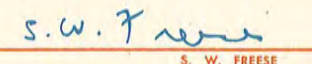
  
DOYLE F. McADAMS, Director

  
W. C. McCLAIN, Director

  
W. B. WEISINGER, Director

### ENGINEERS

Freese & Nichols  
Consulting Engineers  
Fort Worth, Texas

By   
S. W. FREESE


### COUNSEL

Jack Ayer  
Houston, Texas

  
JACK AYER

### BOARD OF WATER ENGINEERS OF TEXAS

By   
H. A. BECKWORTH

  
A. P. ROLLINS

  
JAMES S. GULEKE

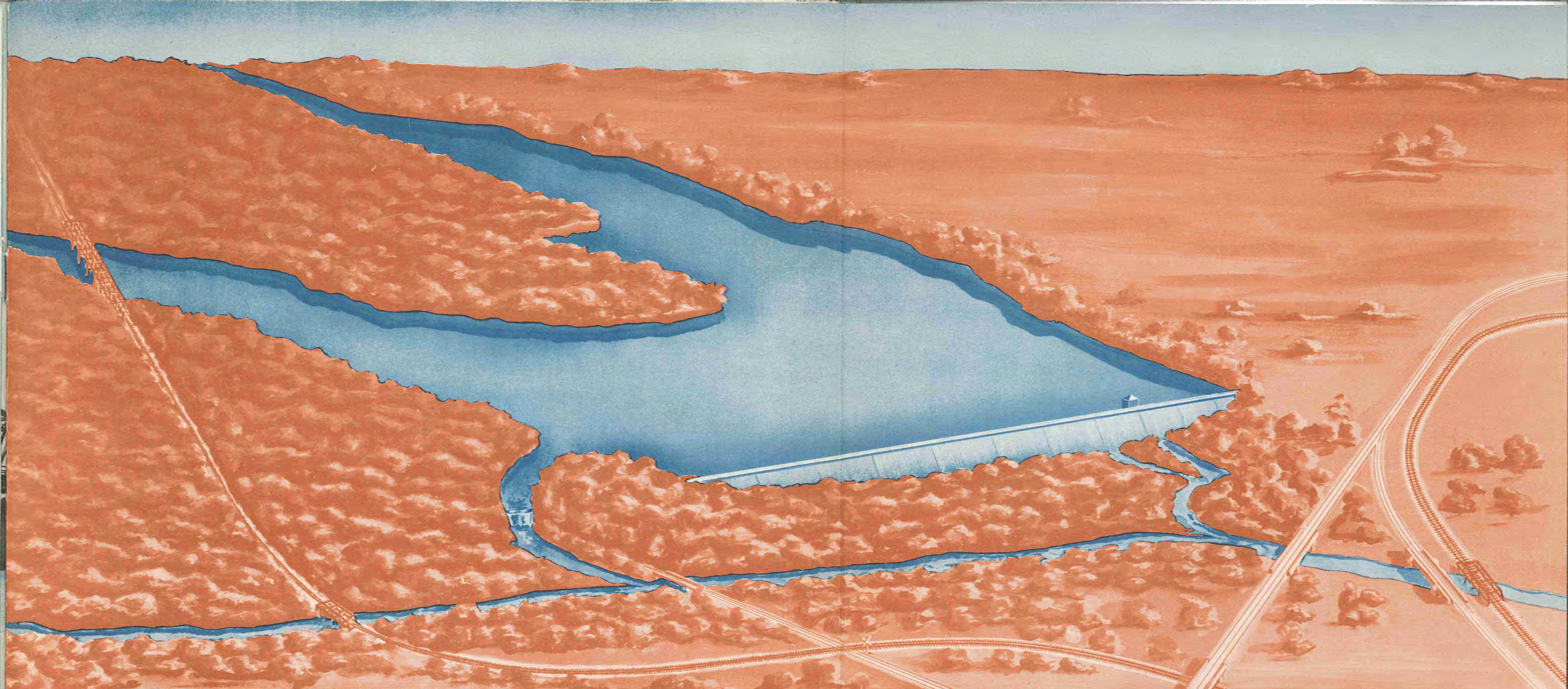
### Master Plan approved

For that part applicable to the State Reclamation Dept. Act as amended, provided that detailed plans of improvements under said Act be submitted for further approval

Reclamation Department of General Land Offices of Texas

By   
BASCOM GILES

LAKE CREEK DAM EXHIBIT "D"

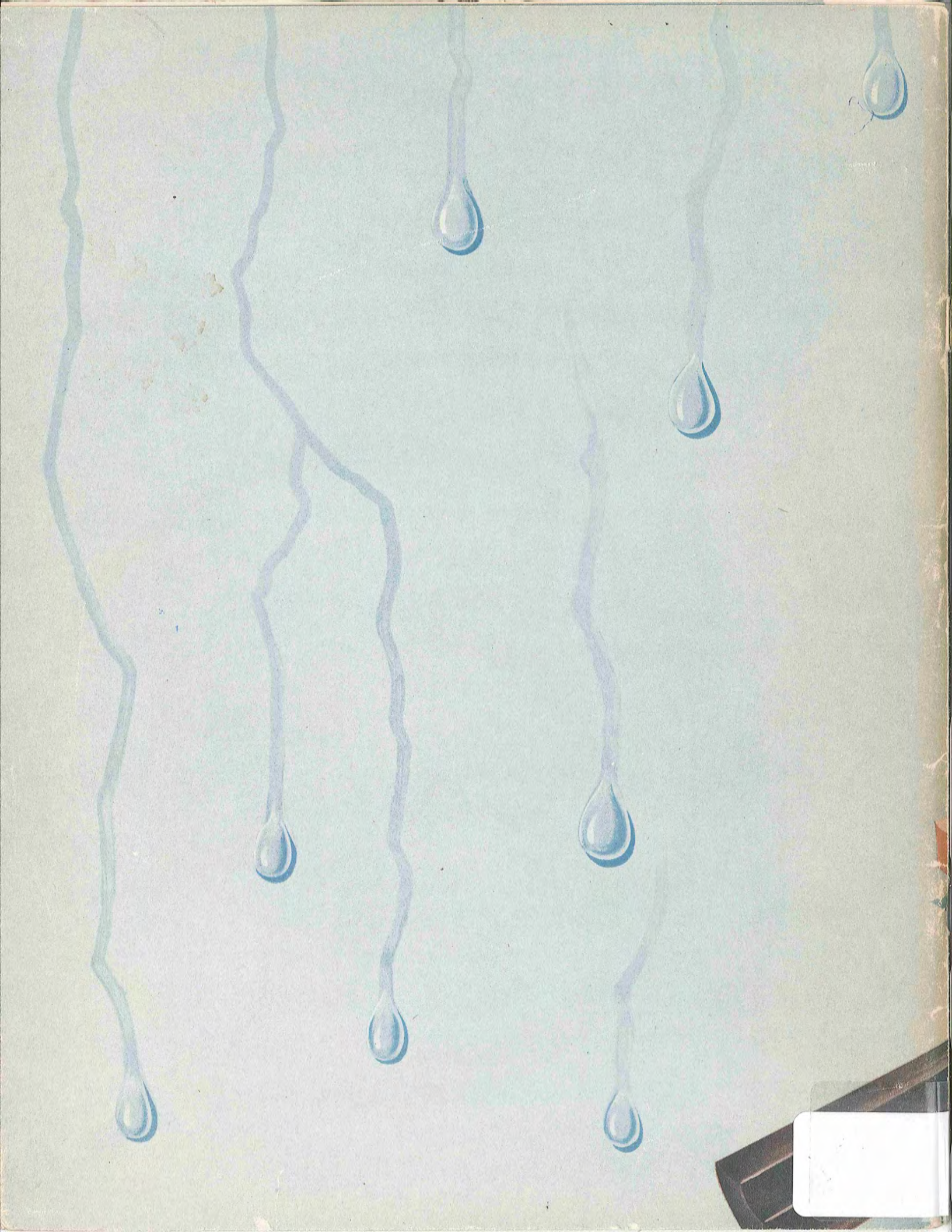


**SAN JACINTO RIVER AUTHORITY**  
**PROPOSED**  
**LAKE CREEK DAM**  
**DOBBIN, TEXAS**

**LAKE CREEK CHANNEL IMPROVEMENTS**  
**1950**

**CRITICAL DATA**  
**LAKE CREEK RESERVOIR AT DOBBIN**

DRAINAGE AREA	125 SQ. MILES
CAPACITY OF CONSERVATION POOL	32,500 AC. FT.
ELEVATION OF CONSERVATION POOL	227.0 FT.
AREA OF CONSERVATION POOL	3,200 ACRES
CAPACITY AT SPILLWAY LEVEL	74,000 AC. FT.
ELEVATION OF SPILLWAY	237.0 FT.
FLOOD STORAGE	41,500 AC. FT.
ELEVATION TOP OF DAM	253.0 FT.



SAN JACINTO RIVER AUTHORITY

SUPPLEMENTAL MASTER PLAN DATA

Freese and Nichols - November 21, 1957

Million Gals.  
per Day

Estimated Fresh Water Requirements of Houston Area

Requirements as of 2010 of Houston Water Survey Area as Estimated by Bureau of Business Research of University of Texas:	2163
Existing Supplies as of 1954 (Bureau of Business Research):	<u>476</u>
Estimated Requirements as of 2010 in Addition to Existing 1954 Supplies:	1687

Potential San Jacinto River Development (Over 1954 Use):

City of Houston's Lake Houston (160,000 acre feet) 150 MGD Yield less 40 MGD Use in 1954:	110
San Jacinto River Authority Direct Diversion 50 MGD Yield less 21 MGD Use in 1954:	29

San Jacinto River Authority Master Plan

<u>Reservoir</u>	<u>Conservation Capacity in Acre Feet*</u>
------------------	--

West Fork and Tributaries (1,858 square miles)

West Fork No 0	410,000	150
Lake Creek	32,500)	
San Jacinto No 1	33,525)	
San Jacinto No 2	5,830)	90
San Jacinto No 3	150,000)	
San Jacinto No 4	25,210)	
Stewart Creek	<u>2,400)</u>	
Total West Fork Conservation Capacity	659,465	

<u>Reservoir</u>	<u>Conservation Capacity in Acre Feet*</u>	<u>Average Yield Million Gals. per Day</u>
<u>East Fork and Tributaries (933 square miles)</u>		
East San Jacinto No 0	276,000)	
East San Jacinto No 1	107,000)	
Caney Creek	6,930)	215
Peach Creek No 1	5,380)	
Peach Creek No 2	<u>2,750)</u>	
Total East Fork Conservation Capacity	398,060	_____

Total Potential Yield - Additional to 1954 Use: 594  
 (Total Yield of 655 MGD less 61 MGD Use in 1954)

\* The capacities of the West Fork No 0 and Lake Creek Reservoirs have been determined from five foot interval contour maps made by the San Jacinto River Authority. The capacities of the other West Fork reservoirs are based on extensions of detail topographic maps of the stream flood plains in the reservoir sites. The capacities of the East Fork reservoirs have been estimated on the basis of a limited number of reservoir cross sections. All of the reservoir sites on both the West and East Forks, except West Fork No 0 and Lake Creek which have been surveyed by the Authority, are now being mapped for the Authority by the United States Geological Survey. The projected total capacities and capacities per square mile of drainage area are given in the following table for the San Jacinto River, West Fork and East Fork:

	<u>Total Capacity: Acre Feet</u>	<u>Drainage Area: Square Miles</u>	<u>Acre Feet per Sq.Mile</u>
West Fork of San Jacinto River	659,465	1,858	355
East Fork of San Jacinto	398,060	933	427
Total-San Jacinto River including Lake Houston - 160,000 acre feet:	1,217,525	2,791	436

Estimated Requirements of Houston Water Survey Area from  
 Other than San Jacinto River as of 2010: 1,093 MGD  
 (Estimated Additional Requirements of 1687 MGD  
 less San Jacinto River Potential of 594 MGD)