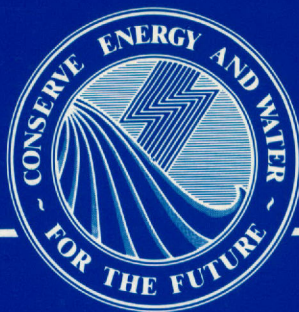


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Lower Colorado



River Authority

1988 Annual Report

LCRA is a conservation and reclamation district created by the Texas Legislature in 1934.

Responsibilities cover a ten-county statutory district and a 41-county electric service area, serving Central Texas with electricity, water, flood control, soil conservation, environmental, and recreational services.

LCRA receives no state funding; it must operate on the fees and rates it charges for its services. LCRA is governed by a 15-member Board of Directors, appointed for six-year terms by the Governor, with the consent of the Texas Senate.

1988 Annual Report

Lower Colorado River Authority

Dedicated to those we serve

This year's annual report focuses on some of the people, businesses and communities which benefit from electric, water, and environmental services provided by LCRA and its customers.

Government Publications
Texas State Documents

JUL 20 1989

Dallas Public Library

Wholesale electric customers

Thirty-three city utilities and eleven cooperatives are LCRA's wholesale electric customers. The partnership of LCRA and its wholesale customers, created from common goals of service and economy, has remained strong through the Depression, World War II, numerous natural disasters, and in recent decades, great swings in the Texas economy.

Customer service has always been a priority with LCRA. In the earliest days, LCRA built distribution systems for its customers and promoted the introduction of new farm and home appliances and automation of industry. Today LCRA maintains a consistent schedule for improving the transmission system and

operates a sophisticated control center for assured delivery of power. LCRA offers engineering services, routine calibration and safety equipment checks, and a variety of electric conservation programs both for the customers' distribution systems and for the end-users. When weather cripples service in a customer's area, LCRA sends men and equipment to help restore power.

Since 1939, LCRA's prime objective in power production has not changed: To provide reliable service at reasonable rates. Through the 1990's LCRA's rates are projected to be among the lowest in the state and the nation, and LCRA's employees are dedicated to maintaining that status.

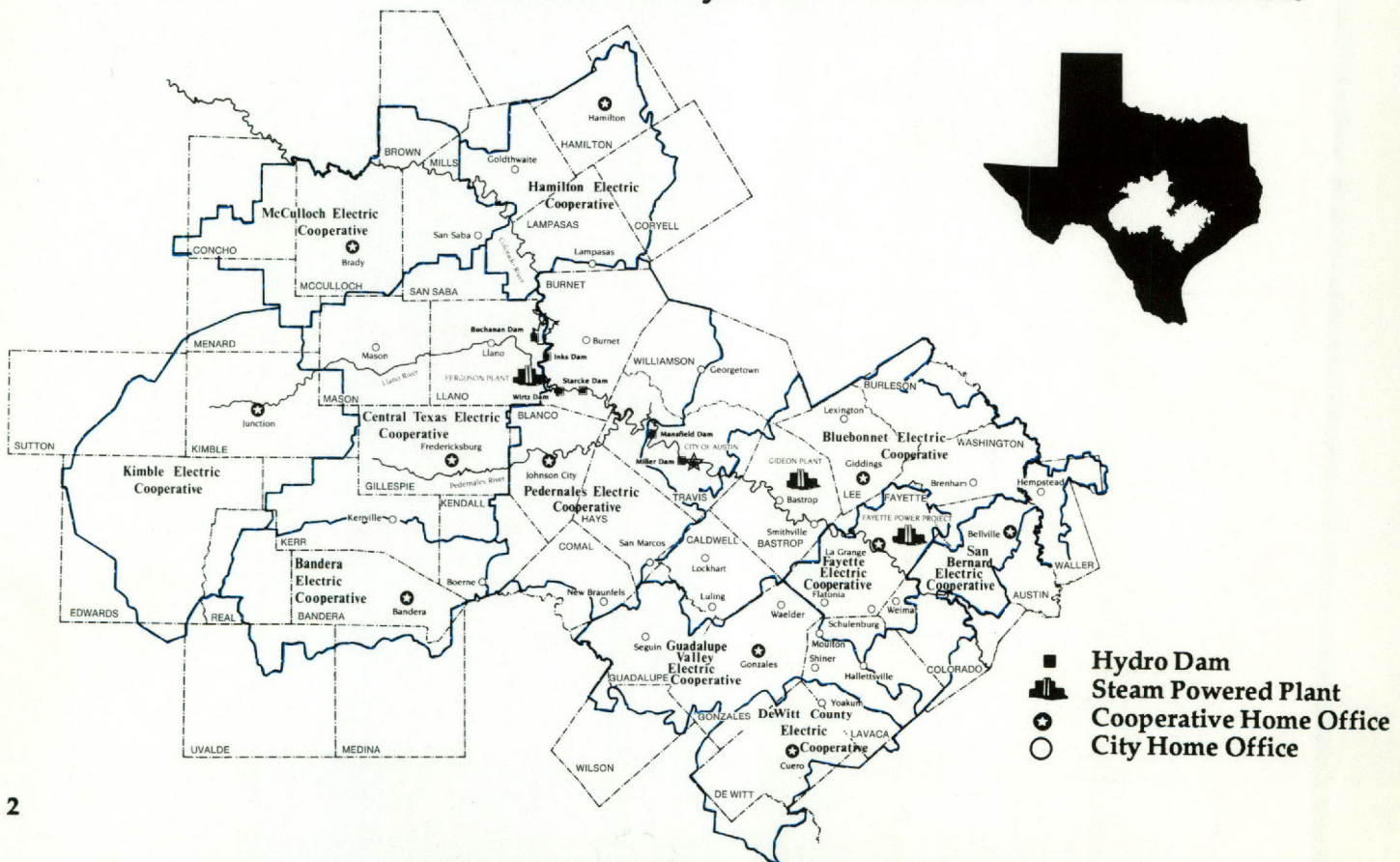
Electric cooperatives

Bandera Electric Cooperative, Inc., Bandera
 Bluebonnet Electric Cooperative, Inc., Giddings
 Central Texas Electric Cooperative, Inc., Fredericksburg
 DeWitt County Electric Cooperative, Inc., Cuero
 Fayette Electric Cooperative, Inc., La Grange
 Guadalupe Valley Electric Cooperative, Gonzales
 Hamilton County Electric Cooperative, Inc., Hamilton
 Kimble Electric Cooperative, Inc., Junction
 McCulloch Electric Cooperative, Inc., Brady
 Pedernales Electric Cooperative, Inc., Johnson City
 San Bernard Electric Cooperative, Inc., Bellville

Cities

Bastrop	Gonzales	Moulton
Bellville	Hallettsville	New Braunfels
Boerne	Hempstead	San Marcos
Brenham	Kerrville	San Saba
Burnet	La Grange	Schulenburg
Cuero	Lampasas	Seguin
Flatonia	Lexington	Shiner
Fredericksburg	Llano	Smithville
Georgetown	Lockhart	Waelder
Giddings	Luling	Weimar
Goldthwaite	Mason	Yoakum

Areas served by LCRA wholesale electric customers



Water customers

More than 200 government entities and individuals are water customers of LCRA. They range from cities and municipal utility districts to industries and agricultural producers.

In a drought-prone state, meeting water demands and encouraging conservation measures are major challenges for LCRA and its water customers.

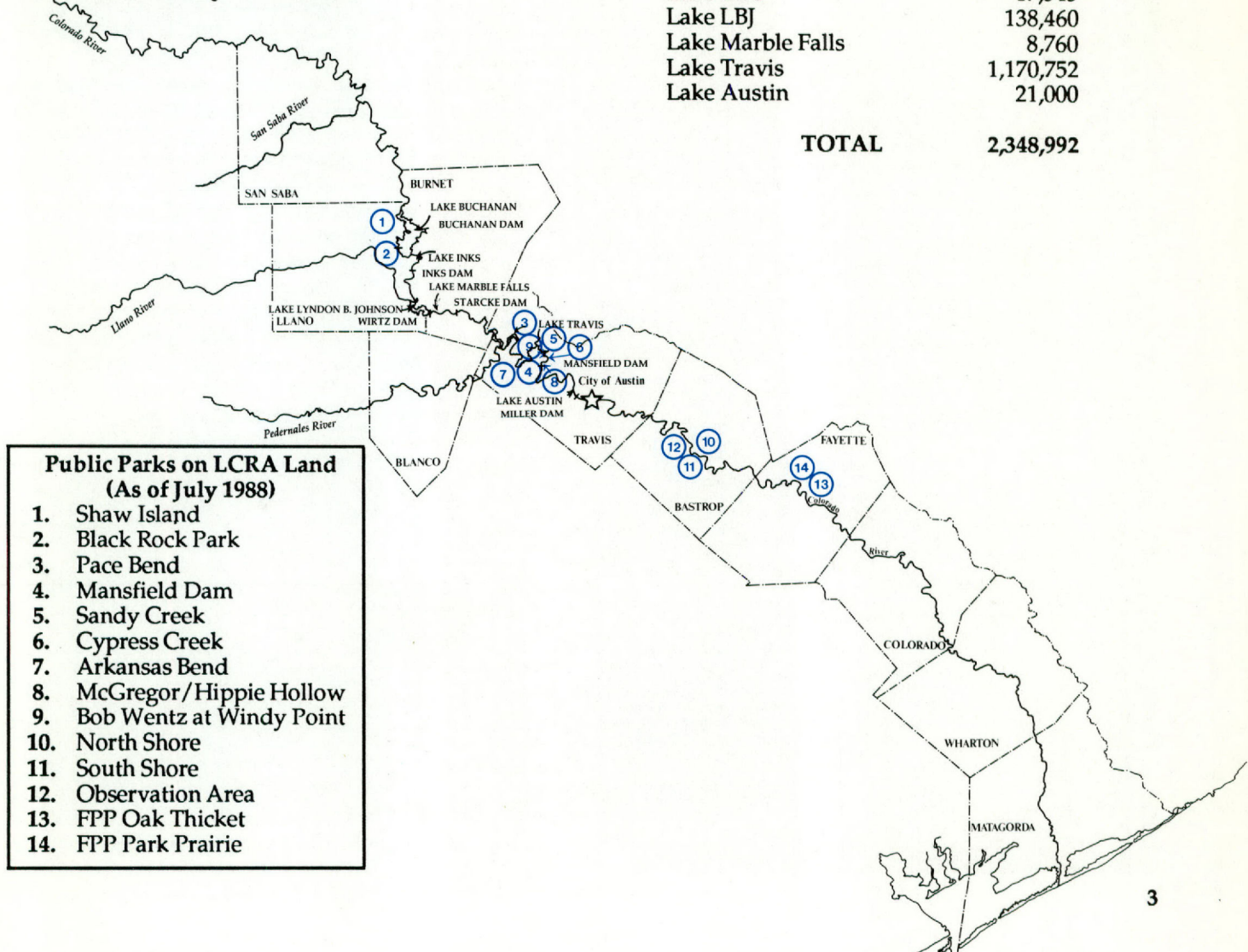
Those who enjoy LCRA parklands and water recreation

LCRA has agreements with cities and counties throughout its water service area for operation of parks and recreation areas on its public lands. These agreements contain stipulations for protection of the environment and for public safety on land and the adjacent waters. It is LCRA's policy to keep the Colorado River open to all who participate in water sports and

to preserve the beauty of the river in as natural a state as possible for everyone to enjoy.

Most of LCRA's public land is in the Highland Lakes area. (LCRA owns 80% of the available public land around Lake Travis.) However, LCRA encourages cities and counties to develop parks and recreational areas throughout the statutory district.

LCRA 10-County Water Service Area (Statutory District)



Capacity of Highland Lakes
(at optimum conservation levels)

	Acre-feet
Lake Buchanan	992,475
Lake Inks	17,545
Lake LBJ	138,460
Lake Marble Falls	8,760
Lake Travis	1,170,752
Lake Austin	21,000
TOTAL	2,348,992

- Public Parks on LCRA Land
(As of July 1988)**
1. Shaw Island
 2. Black Rock Park
 3. Pace Bend
 4. Mansfield Dam
 5. Sandy Creek
 6. Cypress Creek
 7. Arkansas Bend
 8. McGregor/Hippie Hollow
 9. Bob Wentz at Windy Point
 10. North Shore
 11. South Shore
 12. Observation Area
 13. FPP Oak Thicket
 14. FPP Park Prairie

Our achievements

Nineteen eighty-eight has been a landmark year for the Lower Colorado River Authority. During this year, LCRA completed and began operating a new generating unit, developed a strategy to keep LCRA's electric rates among the lowest in Texas, resolved a potentially costly legal battle over LCRA's water rights, and revised our water policies to ensure that we carry out fully all of the duties assigned to us by the State of Texas. These are the highlights of a busy and productive year for LCRA and its employees.

Fayette 3 Startup: On April 29, LCRA placed its Fayette 3 generating unit into commercial operation -- two days ahead of its projected May 1 deadline. Total construction cost was approximately \$10 million below the budgeted \$435 million. (Like its sister units at the Fayette Power Project, Fayette 3 was built on time and within budget.) The unit's 405 megawatts boosts LCRA's generating capacity by approximately 20% and will help us meet our generating needs through the mid-1990s.

To defer the need for additional construction,

LCRA continued to pursue an aggressive Energy Conservation Program in 1988. Coordinating with our wholesale customers, LCRA is making progress in its efforts to build a 200-MW "conservation power plant" to reduce the need for that amount of generating capacity. This program includes rebates for energy-efficient air-conditioning and commercial lighting, load management of air-conditioners and water heaters, and construction of "Good Cents" homes. These conservation efforts helped reduce LCRA's demand by 10 MW in 1988.

Electric Rates: LCRA takes pride in the fact that our current wholesale electric rates are lower than in 1984, even after LCRA enacted two base-rate increases to begin paying for Fayette 3.

These increases have been offset by LCRA's cost reductions in its fuel costs. We successfully secured a long-term rail-transportation rate for hauling coal to FPP, which will save LCRA about \$9 million a year. We also secured a favorable settlement on litigation concerning a proposed coal-slurry pipeline, resulting in \$9 million awarded to LCRA and the City of Austin.

More significant may be the settlement of litigation against a major coal supplier, removing a billion-dollar threat of increased fuel costs. We also have entered into our first gas exploration and development program with Pelto Oil Company, which will help us control a good portion of our natural gas requirements in the 1990s. Discovery results as of mid-December 1988 total about 10 billion cubic feet of proven reserves, in line with our initial projections.

If we are able to continue controlling our fuel costs, the only foreseeable adjustments to our electric rates will be two additional increases -- one filed for 1989, and the other in 1990. We expect these increases to result in our wholesale rates at about five cents per kilowatt-hour as we enter the 1990s -- still among the lowest in the state. The success of our conservation program indicates we may be able to avoid base-rate increases for several years thereafter.



Fayette Power Project near La Grange

Water Rights Settlement: In April, LCRA completed an agreement by the Texas Water Commission to resolve the issue of water rights for LCRA and the City of Austin. Through the agreement, LCRA secured and increased its water rights in the lower Colorado River basin.

This Agreement enables LCRA to carry out its mandate of supplying the people of the lower Colorado River basin with the water they need. The Agreement also provides for comprehensive water quality and conservation measures to protect the water in the Highland Lakes and Colorado River. As part of the Agreement, LCRA staff is completing a Water Management Plan for the river basin. This Plan for the first time addresses all the conflicting demands for the Colorado River waters, including the growing interest in recreation. The Plan will be submitted to the Texas Water Commission in Spring 1989.

Water Policies: LCRA's Board of Directors reviewed and strengthened LCRA's policies pertaining to water quality, conservation, pricing, recreation, and water-project financing. The result of their work will be a unified, comprehensive set of policies governing LCRA's water programs and operations.

The Board of Directors instructed LCRA to take a leadership role in protecting and improving the water quality of the Highland Lakes and the Colorado River downstream. As a result of the Board's action, LCRA has undertaken several projects, including the development of a program to control nonpoint-source pollution -- runoff from rural and urban areas which can contribute much of the pollution in our lakes and

river. We are also working with Austin, Marble Falls and other communities to achieve more stringent standards in wastewater treatment to minimize pollution from wastewater discharges.

LCRA is now firmly dedicated to a long-term effort to preserve and improve the quality of the water in the Highland Lakes and to clean up the river below. This effort requires the cooperation of everyone in Central Texas.

LCRA will continue to develop its lands dedicated as public parks to provide a broad range of recreational opportunities to Central Texans.

LCRA recognizes that the burning of fossil fuels is contributing to Global Warming. Conservation has now become a survival issue for the people on earth. LCRA will therefore continue to strengthen and focus its conservation programs for electricity and water as well. This will help keep our electric and water rates competitive.

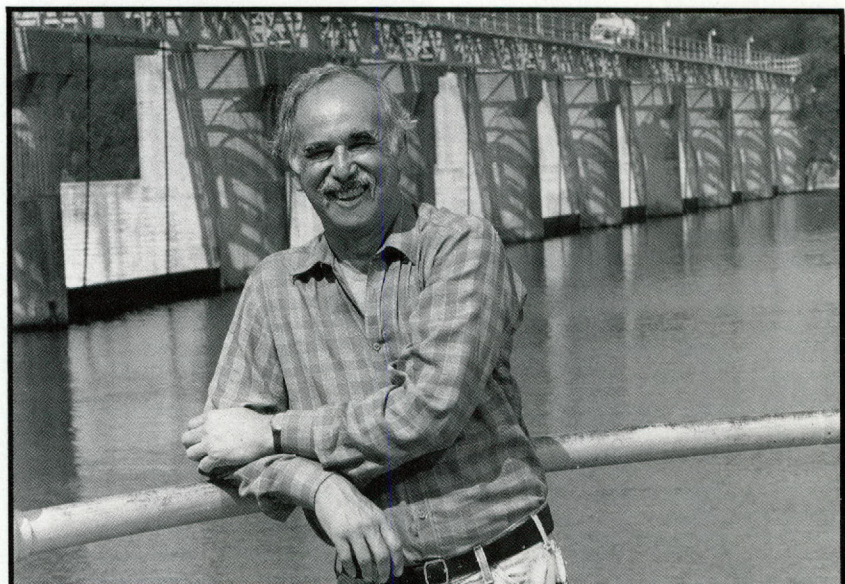
The Global Warming concerns are just another reason to "put a greener cover on the land." Hopefully, LCRA will initiate reclamation programs in the coming year.

We at LCRA are acutely aware that the only reason we're here is because of the people we serve. That means that while we can be proud of the many things we have done, we can't allow our achievements to overshadow the many things that remain to be done. Our pledge is that we will continue to do our best for The People We Serve.



S. David Freeman
General Manager

*General Manager S. David
Freeman at Tom Miller Dam in
Travis County*



Our priorities

LLCRA: Dedicated to Those We Serve

This is the theme for this Annual Report. Through the following stories, we hope to show how the Lower Colorado River Authority in partnership with local communities, cooperatives, water companies, and other agencies serves the people of Central Texas.

In these pages, you'll meet a rice farmer in the Texas Gulf Coast area, the chief executive of a popular ice-cream manufacturer, the proprietors of a successful Texas winery, the owner of a marina on Lake Travis, and a school teacher and historian who has witnessed the introduction of electricity to Central Texas and its impact on our lives. You'll also meet an executive of one of the largest steel mini-mills in the nation and a "retiree" who uses a Hill Country community as his home base for his diverse activities.

These people, along with hundreds of thousands of other Central Texans, have worked hard to build successful lives. LCRA is proud to have played a supporting role in these accomplishments. Our role, as mandated by our charter, includes responsible stewardship of limited electric and water resources, as well as responsibility to our customers to provide reliable, efficient and economical services.

While our operating priorities may have changed over the years, our commitment to our customers has not. I believe that our loyalty to our charter responsibilities has, in fact, dictated our major priorities over the years:

- In the 1930s and early '40s, our top priorities were to bring flood control and electricity to a region

which, for political, geographic, and economic reasons, had seen others fail in these attempts. LCRA built four dams impounding Lakes Buchanan, Inks, Travis, and Austin, and created its electric system and service area.

- During the 1940s to the early '70s, LCRA's major priority was to expand its electric operations to serve a rapidly growing population in its Central Texas service area. The Highland Lakes sustained the river basin through the severe droughts of the 1950s, and the dams prevented the worst effects of massive floods in 1957.
- The early 1970s saw LCRA faced with rising fuel costs and the threat of the Highland Lakes polluted by uncontrolled development and septic systems. In response, LCRA began building the Fayette Power Project to help control electric rates and created a Water Quality Department to inspect and license septic systems along the Highland Lakes above Austin.
- During the 1980s, LCRA constructed a third unit at FPP, but of equal significance are our efforts to expand our environmental, water and conservation programs. In the past three years alone, LCRA has formulated comprehensive water policies, assumed a leadership role in protecting and improving water quality in the river basin, adopted aggressive programs to conserve our limited water and electric resources, and launched an economic and industrial development program.

1988 LCRA Board Chairman Jack Johnson at his home in Eagle Lake.



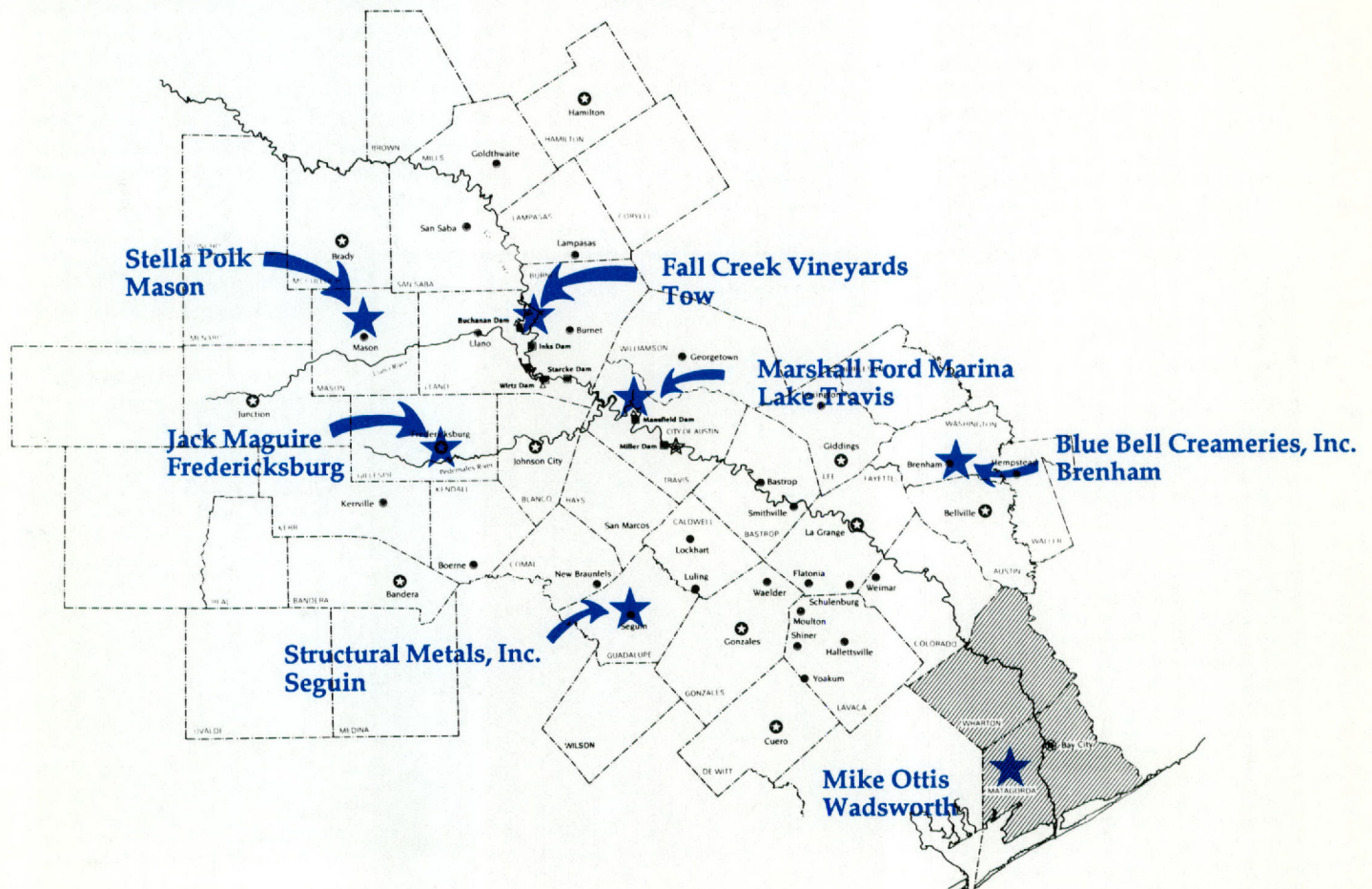
Every day, our programs and operations touch the lives of our customers in many ways. But that doesn't mean LCRA operates on a day-to-day basis. Our management decisions, since our creation, have not been merely to take care of the present, but also to prepare for the future. This is essential if not only our customers, but also their children and grandchildren, are to be well served.

This means that LCRA must plan for the construction and financing of major projects (such as electric generating units and water treatment plants) years before they are needed. Because it may take years to prepare to deal with a need or a problem, we must ask hard questions when determining our priorities and reaching proper decisions -- a lack of clear thinking can cause us to make the kinds of mistakes that carry long-term, irreversible consequences.

Directing the operations of LCRA now is no less challenging than in our earlier days. And it's no less rewarding to see the planning and hard work of our staff and Board members pay off in achievements which greatly benefit the people we serve. I am proud to have served as Chairman of LCRA's Board of Directors during 1988. I hope you will enjoy these profiles of our representative customers -- and through their stories, gain a sense of our mission here at LCRA.

Jack M. Johnson, Chairman
LCRA Board of Directors

Locations of featured residents and businesses



The residents in LCRA's service area

LCRA's 41-county service area includes roughly 260,000 residential customers served by the 33 cities and 11 electric cooperatives which buy electricity wholesale from LCRA. Residential electric use accounts for 54% of the electricity generated and sold by LCRA.

As diverse as is LCRA's service area, residential customers are almost evenly distributed throughout four major age groups -- 18-35, 36-50, 51-64, and 65 and older -- according to an LCRA survey. These age groups each have distinctive characteristics and lifestyle needs which determine their use of electricity:

The 18-35 age group, along with 36-50, represent the area's young and growing families. The 18-35 group's homes are newer (more than 70% were built after 1974), smaller (two-thirds are 2,000 square feet or less), and have more energy-conservation features.

The 36-50 age group has the best standard of living of the four groups. Their homes are bigger (40% have 2,000 square feet or more) and have the largest number of occupants -- half the households have four or more residents each. Customers in this group have higher incomes and educational backgrounds.

The 51-64 age group also has a large number of customers with high incomes, large houses and two or more occupants per

household. In this group 41% of the husbands are retired.

The 65-plus age group has houses that are older (35% were built before 1950), and smaller (nearly half are 1,500 square feet or less) than the other groups. Though smaller, these houses are not as energy-efficient and may use natural gas or propane for heating. Average household occupancy is less than two, as 37% of the women responding in this category are single. Farming/ranching is the largest occupation, but 82% of the men are retired -- and 54% of the respondents report incomes of \$15,000 or less per year.

Air-conditioning -- the largest single residential use of electricity -- is in 90% of all homes in the LCRA service area (though the figure drops to 83% in the 65-plus group). Nearly half of all homes have central air units.

For heating the house or water, up to 36% of all homes use natural gas or propane. However, newer homes tend to be all-electric -- more than two-thirds of all homes built after 1985, as compared to only a third of those built before 1950 -- and use the more energy-efficient heat pumps. Electric water heaters are in 60% of all homes -- including some that use natural gas for heating. (These figures may account for the fact that LCRA's annual system peak has shifted in several recent years from the summer to the winter.)



"People turned their backs on the old ways so quickly...If the power ever went off, they'd be lost."

Stella Polk, 87, of Mason



Stella Polk laughs when she hears The Question. It comes up every time she talks with school children about life in Mason County long ago.

"Someone always asks, 'How did you ever get along without TVs? Or radios? Or electricity?'" Polk explained. "And I tell them, 'Honey, we never had it. We didn't know how to miss it.'"

Polk, 87, a retired school teacher and the acknowledged historian of Mason and Mason County, has vivid memories of life before electricity, and how people responded when rural electrification swept through the area half a century ago.

"Some people wanted it, but there were some who fought against it," she said. The people who refused to sign up with the co-op were afraid that the electricity might kill them or their family. Or they were afraid of losing the \$5 service deposit. "Back then, \$5 was a lot of money," Stella noted.

But apprehension gave way to more persuasive influences. "One wife wanted to get electricity, and her husband was against it. But he gave in. And soon he

was inviting all his friends to come over to listen to the new radio he had bought."

The use of electricity grew slowly. "They first put the electricity in schools," Stella remembered. Her first vision of electricity was the single light bulb hanging from the ceiling in one of the many one-room country schools where she taught for several years.

"People got electricity mainly for the lights," she said. Other uses and appliances followed. After the lights came irons and radios and refrigerators -- "the dream of our lives," according to Stella -- and then stoves and air-conditioners and heaters and TVs. Windmills, necessities for every ranch before rural electrification, were primarily relegated to pastures, and cisterns were abandoned as electric pumps took over to provide water for the home.

Once people realized what electricity could do, the conversion was quick and complete. "People turned their backs on the old ways so quickly, you'd be surprised," Stella said. "If the power ever went off, they'd be" -- and she pauses to give the word extra emphasis -- "lost."

Her late husband Jack, a cowboy and rancher who was no stranger to a blue norther on the Texas plains, came to love wrapping up in a good, warm, electric blanket on a cold night. She chuckled as the scene replayed itself in her mind. "That shows how dependent you get when you get used to it."

Even so, she quickly added, electricity does have its advantages. She uses electricity in her 63-year-old ranch house for lighting, for cooking, for watching TV, and for a few small appliances. Her house -- which had to be wired for electricity after it was built -- has no central air-conditioning or heating unit; she uses propane and wood-burning stoves for heat. Her average monthly electric bill, about \$50, is manageable on her income.

It's ironic to Stella that people who once never knew about electricity became so dependent on it -- and that their children and grandchildren can't even conceive of life without it. Yet she wouldn't give it up to go back to the old ways. "We couldn't do without it," she said.

She remembered a thunderstorm "where everything went out, and I mean *everything*. I was scared. I called Central Texas Co-Op, and the lady on the phone told me, 'Miz Polk, you get back in bed. We'll get there as soon as we can, and we'll get you some light.' I had a real kind feeling. I felt that somebody cared."

Jack Maguire, a Fredericksburg "retiree"

Jack Maguire credits President Franklin D. Roosevelt with helping him break into journalism.

"I had applied for a job at my hometown paper, *The Denison Herald*," Maguire remembered, puffing on his trademark pipe. "It was 1936, in the middle of the Great Depression. I was a 16-year-old high-school student, and the editor informed me that only professional, experienced reporters need apply."

"I made a bet with him. If I could get a story worth running on the front page, he'd give me a job. If I didn't, I'd never pester him for a job again."

The editor immediately accepted, if only to get young Jack out of his office. Maguire, however, knew from his dad, who worked for the railroad, that the President's train would be stopping at Denison, en route to Dallas for the Texas Centennial. He wrote the White House, telling Roosevelt of his bet.

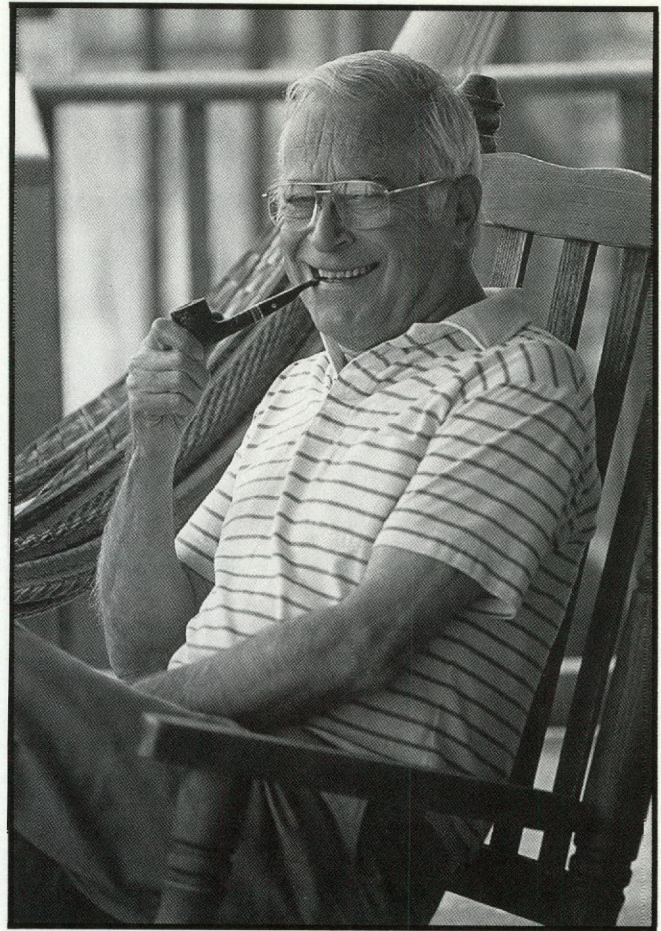
"The President must have loved a sporting bet, because he accepted my invitation to speak in Denison," Maguire said.

He got his front-page story, and the job. He's been writing ever since, having authored a weekly column, "Talk of Texas," for 27 years, as well as six books on Texas history and trivia. His has six filing cabinets filled with interesting tidbits, such as the fact that the State of Texas doesn't own the land on which the State Capitol sits. ("They've never been able to obtain clear title," he notes.) And the fact that there are three counties in Texas where Russian is still spoken. And the story of how an Austin hotel keeper's pig may have caused Texas to abandon its status as an independent republic and join the United States. ("The pig ruined the French ambassador's garden and made him so mad he had France cancel a \$5 million loan that would have kept the Republic afloat.")

He admits his is a "journalist's view of Texas, not an academic historian's. It's material that hasn't been intentionally left out of history books so much as it's been ignored over the years. But it should be in history books. Kids love it, because it makes the people and places so much more interesting, and is something they can relate to. Some may think it more important that Santa Anna helped invent chewing gum than that he won the battle of the Alamo."

A popular talk-show and after-dinner speaker, Maguire has become such an authority on the state that when he appeared on Larry King's nationwide radio program, King introduced him simply as "Mr. Texas".

Since his interview with Roosevelt, Maguire has known every subsequent President except Ronald Reagan. He wrote a remembrance of the Texas Hill



Country for Lyndon Johnson and also helped him with press relations during the 1960 presidential campaign. One news conference during that campaign inadvertently put Maguire on national network television; he was center stage, flanked by Johnson and John Kennedy. The arrangement piqued Johnson, who understood something about the power of televised images. Maguire got a call later that night, with Johnson asking testily, "Maguire, are you running for President?"

Officially, Maguire has retired twice, but Texana and the work ethic are in his blood -- Burnt Orange blood, it turns out, as both jobs from which he retired were associated with the University of Texas system. In 1976 he retired after 20 years as executive director of the University of Texas Ex-Students Association, only to be offered the same position at UT's Institute of Texan Cultures in San Antonio. "I'm ready to retire," he told UT regents, "but I'll be happy to stay there for a couple of years." He stayed ten, building the Institute into an active educational foundation,

devoted to researching and preserving the state's ethnic and cultural history. During his tenure the Institute published more than 30 books and audio-visual materials for classroom teachers. He still works with UT, serving as special assistant to the president of the UT Health Science Center in San Antonio.

Even under the guise of retirement, Maguire stays busy. From his home in Fredericksburg, in the Central Texas Hill Country, he writes his column, researches and writes about one book a year, does consulting work, runs a travel agency for select clients, and averages one speech every other week.

"I can't seem to retire," he smiled. "Here in Fredericksburg, the pace is much slower than in San Antonio or Austin, but it seems like I'm busier now than when I was 'working.'"

Like many other residents, Maguire and his wife, Ann, have moved from large metropolitan cities to the smaller communities in Central Texas in recent years. Attracted by the scenery and pleasant lifestyles, they made the moves to start a new business, commute to their jobs, or pursue an active retirement. The communities are competitive with the larger cities in attracting prospective residents and businesses, as they

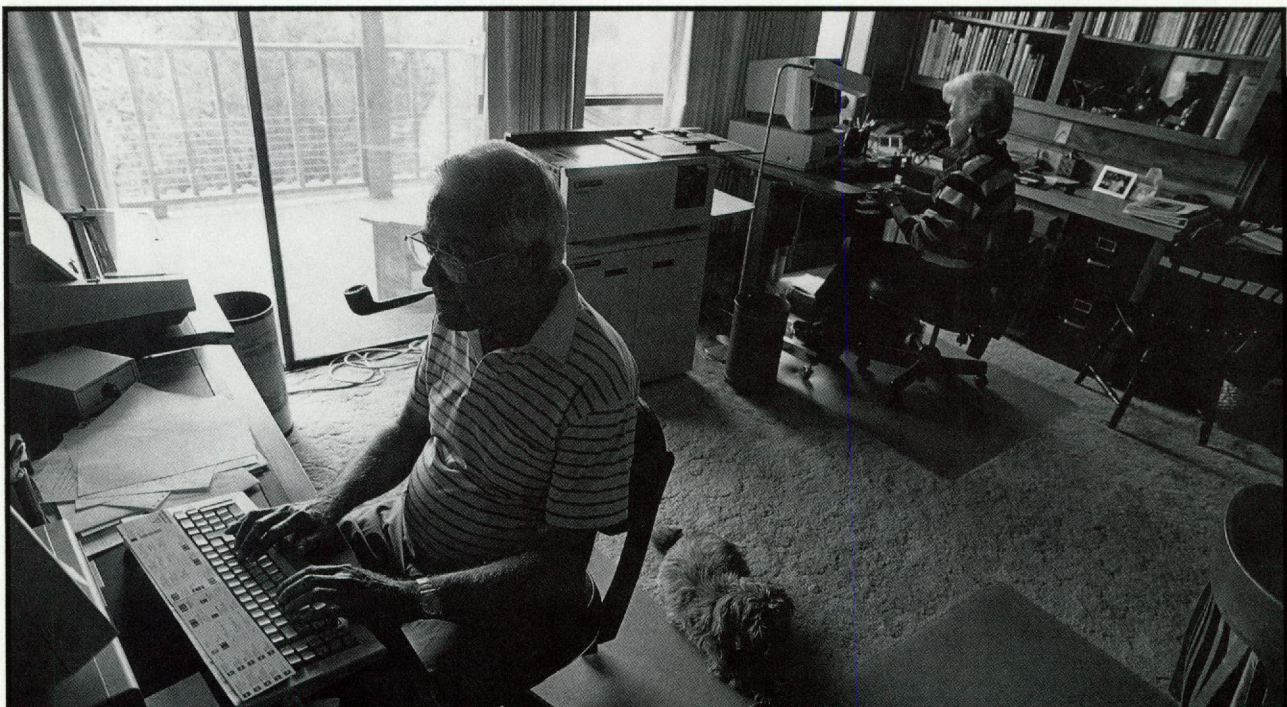
are able to offer attractive subdivisions, roads, schools, and (through LCRA and its wholesale customers) reliable and economical electric service.

The Maguires work out of an office in their house. "We have his-and-her personal computers," Jack said, "and the house is all-electric, including central air-conditioning and heating. We're literally dependent on good electric service."

He is pleased with the service provided by the City of Fredericksburg electric utility. "We've had excellent service. The people are wonderful to deal with, and the rates are great -- the bills during the winter or summer may run about \$110 a month. For a 3,000-square-foot all-electric house, that's not bad at all. It's certainly less than what I would be paying in Austin or San Antonio."

Maguire knew well the two men most associated with bringing rural electrification to Texas -- Sam Rayburn and Lyndon Johnson. "It was the Wheeler-Rayburn bill that created the rural electrification program, and it was Lyndon Johnson that brought it into the Hill Country and made this area livable." The benefits they brought to Central Texas -- and which are maintained today by LCRA and its wholesale customers -- are no trivial part of Texas history.

Jack Maguire and his wife, Ann, are active with their retirement careers, working out of their home.



Businesses in Central Texas

Food processors such as Blue Bell Creameries, Inc., constitute the top manufacturing activity in the eastern and western portions of LCRA's service area. Food production is the fifth largest segment of manufacturing throughout the LCRA service area.

While manufacturing represents only about 15.3% of total jobs in LCRA's service area, those jobs (and the higher pay they offer) account for 18.8% of total wages.

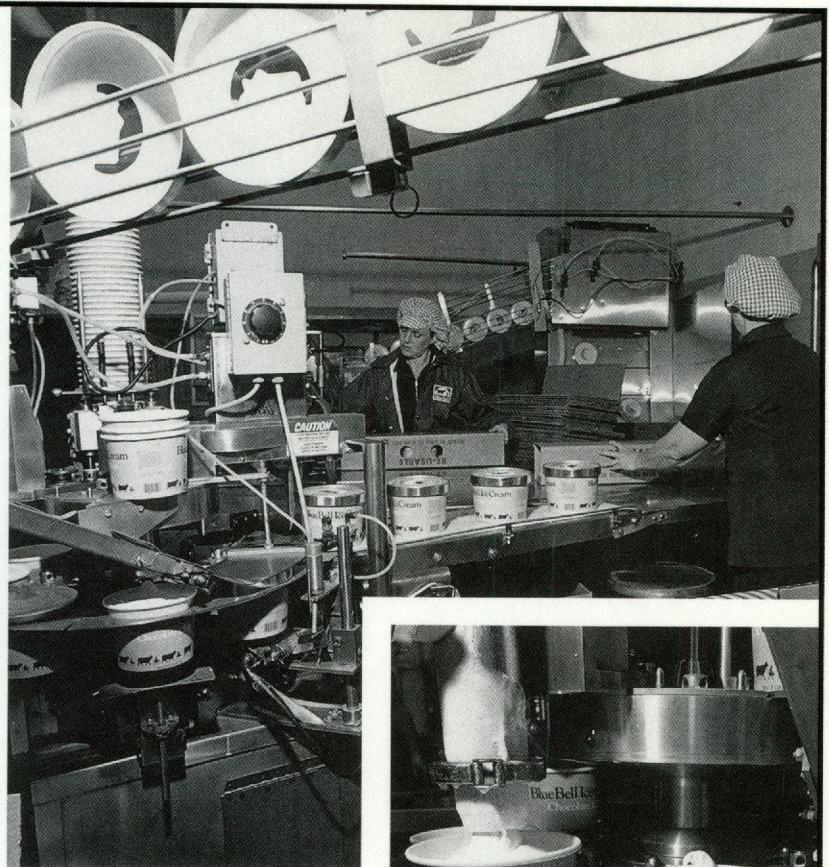
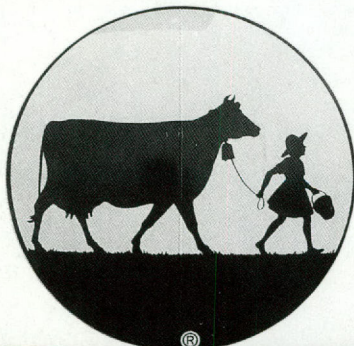
The top manufacturing activity in LCRA's service area includes production of stone and clay products – items made of concrete, gyp-

sum, plaster, clay, glass and pottery. Second largest activity is production of rubber and plastics products. The next largest manufacturing segments, in descending order, are fabricated metal, lumber, food products, chemicals, machinery, measuring and controlling instruments, and paper products.

Rounding out the top ten manufacturing segments is production of electrical and electronic equipment, including computers. Though jobs in this category have declined since the early 1980s, this segment still makes a major contribution to the Central Texas economy.

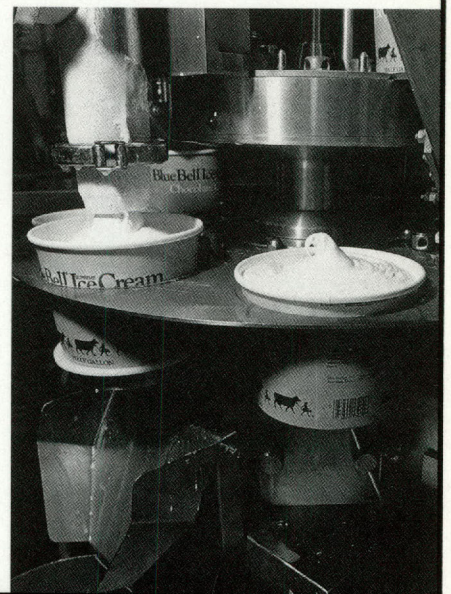


Ed Kruse, Blue Bell CEO, says, "You can romance ice cream."



Blue Bell has modernized as necessary to produce efficiently an old-fashioned favorite that has been around since 1907.

Affordable, dependable power from the City of Brenham has contributed to the company's success.



Blue Bell Creameries, Inc., of Brenham

Homemade vanilla, chocolate sundae, cookies and cream, and butter pecan are just a few of the flavors that created a boom industry out of a creamery that once produced only hand-churned butter.

Blue Bell Ice Cream is an addiction for many area Texans regardless of season, time of day, or diet plan. But there were decades of development before Blue Bell dominated the Texas ice cream market.

"It all began in 1907 when a group of Brenham business people saw a need to buy excess cream from area farmers to make butter," explained Ed Kruse, Chairman and Chief Executive Officer of Blue Bell Creameries, Inc.

"We've seen quite a few changes over the years. Brother (Howard Kruse, Vice President and Assistant General Manager) and I both started out in 1941. I was 13; he was 11. We'd work 48 hours a week and were paid ten cents an hour. We used to make popsicles, fudgesicles, and ice cream sandwiches, and wrap butter by hand."

"Blue Bell began concentrating on making ice cream in 1917 and continued in the butter business until 1958. Then the company got rid of butter and has stayed with ice cream since then."

Kruse, CEO since 1951, oversees the production and distribution of Blue Bell products to more than 12 million Texans for a sales total of \$150 million worth of ice cream and frozen snacks a year. A far cry from the days of selling butter, said Kruse. "You can do so much with ice cream. You can put fruits in it and add all kinds of flavorings and nuts. You can romance ice cream. Butter...you just churn cream and you get butter."

Blue Bell's market also includes parts of Louisiana and Oklahoma.

With 14 refrigerated warehouse branches throughout Texas, Blue Bell distributes frozen products from the warehouses to a 60-mile radius. Most branches are located near or in major population cities, such as Houston, Dallas, Fort Worth, Beaumont, San Antonio, and Austin. A new distribution warehouse in Corpus Christi opened in November 1988 to improve on Blue Bell's 80% market saturation in Texas. In 1989, Blue Bell took a big step by opening a branch outside of Oklahoma City.

But Blue Bell Creameries continues to produce frozen desserts in its hometown of Brenham. "We plan to grow at a planned rate, which means in the years to come we cannot continue to manufacture everything in Texas. We will, by necessity, have to build another plant elsewhere, because we envision that it's possible to go to all 48 states," said Kruse.

From ten full-time employees Blue Bell's staff has grown to more than a thousand people, some who own stock in the company to participate in the ownership and profits.

A big attraction for tourists, Blue Bell dipped ice cream for more than 70,000 guests during plant tours last year.

Affordable, dependable electric service is vital for businesses like Blue Bell. LCRA works closely with its wholesale customers -- including the City of Brenham, which serves Blue Bell -- so that they can serve their customers as efficiently as possible.

LCRA's working relationships with its wholesale customers range from strategic sessions, where issues such as rates and major construction projects are discussed, to a variety of technical services, in which LCRA assistance can help local utilities train

employees, build distribution systems, or design retail rates.

The closeness of the working relationship is shown during emergency situations which disrupt electric service. Crews from LCRA and the local utilities coordinate the repair of downed power lines, distribution lines and transmission towers. LCRA's System Operations and Control Center quickly reroutes electricity through other lines. Service is handled so quickly and efficiently that in many cases, retail customers may not even experience a power outage.

Expanding businesses rely on LCRA's low-cost electricity as their growth demands more electric usage. Averaging 1.7 million KWH a month at the main plant, Blue Bell helps curb consumption by using energy efficient machinery. Other businesses and industries can also learn to maximize their energy dollar by requesting an evaluation of available alternatives from LCRA's energy efficiency program.



Structural Metals, Incorporated, of Seguin



SMI President Marvin Selig

Structural Metals, Incorporated, is one of Central Texas' great success stories. When founder and president Marvin Selig arrived in Guadalupe County more than 40 years ago, all he had was a \$2,000 loan from his uncle and the idea to build a steel mill in rural Texas.

Selig, a New York native and University of Texas graduate, bought a 1 1/2-acre cornfield on the banks of the Guadalupe River near Seguin for \$300 and set up SMI. The plant began rerolling (remolding) railroad rails into reinforcement bars for concrete structures; he figured that the construction markets in San Antonio, Dallas, and Houston could provide a ready market for his plant's product and enough business to make a living.

The hard work of Selig and SMI employees has paid off beyond anyone's original expectations. Today, SMI's Seguin site has grown to encompass more than 300 acres and 700 employees, ranking among the nation's five largest "mini-mills" (mills that are smaller than the "Big Steel" companies but operate more efficiently and economically).

SMI is a major component of Dallas-based Commercial Metals Company's steel group, which includes manufacturing and distribution operations throughout the world, employing 2,200 people. Parent company CMC posted a \$24 million profit during its 1988 fiscal year, and Selig serves as president of the

CMC steel group as well as SMI's chief executive officer.

The SMI operation could be a textbook example right out of *In Search of Excellence*. SMI has avoided diversification and concentrated on what it knows best -- making and marketing steel products to meet its customers' needs. And SMI's management has fostered high morale by working with its employees so that they know they're a vital part of the production team.

The results? SMI's profitable Seguin mill has operated at full capacity, has never had to lay off employees in its 40-year history, and has more than doubled its production within the past five years to 500,000 tons a year. In stark contrast, "Big Steel" has been plagued by rusting and idle capacity, labor problems, and loss of revenues and market share to foreign competitors.

Even so, the industry is becoming more competitive, especially among the mini-mills, Selig said. "Our challenge is to meet that competition by producing the highest quality at the lowest cost and broadening our base of products and customers. It takes highly skilled and motivated people to do that.

"Our mission here, of course, is to make a profit," he pointed out. "If you don't make a profit, you go out of business. But sometimes you have to forego profit in order to keep your company strong in other areas, such as equipment, or research and development, or with your people."

Teamwork is a key to SMI's success, as well as careful attention both to customers and employees, according to Selig.

"Your customer signs your paycheck," he said. "You take care of him. Figure out his needs and fill them." While many big mills may arrange their production schedule to suit themselves, SMI will structure its schedule (and, if necessary, custom-design the products) to meet its customers' needs.

"At the same time, one of our missions at SMI is to make sure our employees are satisfied with their jobs and are having fun doing them. We're occasionally asked, 'What's your personnel policy?' Well, you start with the Ten Commandments, then you add the Sermon on the Mount. You don't need very much else."

Selig has high praise and admiration for SMI's "world-class steelmakers," as he calls his employees. "We think of SMI as people because our buildings, our machines and our equipment are nothing without the people who operate this plant."

A tour of the SMI plant reflects the company's application of both the old and new in skills, equipment and technology. In its early days, SMI refurbished and installed used equipment purchased from other mills.

Through the years, as company profits (and stockholder approval) allowed, SMI has installed state-of-the-art facilities, such as a 90-ton electric furnace and other manufacturing and production equipment.

The furnaces and equipment use a lot of electricity, and "Our electric consumption and costs have grown directly in proportion to our output," said Selig. As a result, SMI is the single largest electric consumer in Guadalupe Valley Electric Cooperative's (and LCRA's) service areas; its demand makes up roughly 35% of GVEC's total load, and about 4% of LCRA's.

The mill works closely with both agencies to help monitor and control its electric costs.

"GVEC's a very well-run outfit," Selig remarked. "We have worked well together. Our relationship couldn't be better.

"We have worked with GVEC for years to implement conservation and load-management practices so that LCRA can delay investing in new generation sources. Communication systems installed by GVEC have helped considerably. Load management is an important part of SMI's production scheduling."

Selig also has a long-standing relationship with LCRA, including a six-year term as an LCRA director,

representing the electric service area. "LCRA has a competitive electric rate, and we're thankful for that," he said. "Communication between the end-user and LCRA is the key."

Selig intends for SMI to remain competitive and to continue growing in capacity, production, and in employee job opportunities. However, he's pleased with what SMI has accomplished so far in these areas, especially employee development.

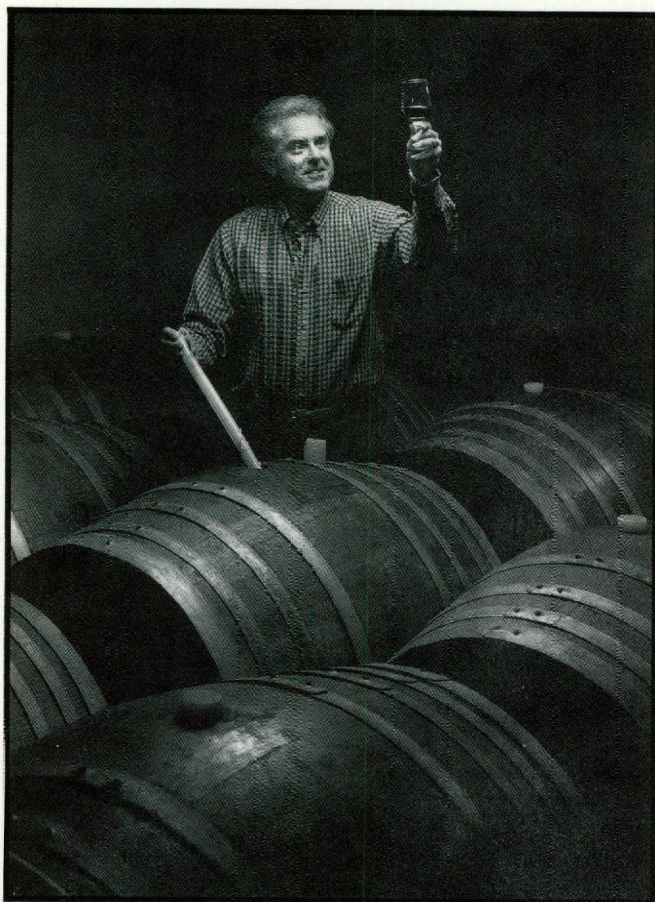
"There's a lot of satisfaction in training and guiding someone to achieve more than they thought they could," he noted. "As you develop and work through people, you can accomplish great things.

"An old biblical scholar once defined 12 levels of charity. You start at the lowest level, in which you give, and everybody knows you gave. At a higher level, you give, and nobody knows you gave. The highest level of charity, this scholar said, was to provide someone with a way of making a living.

"Our people have made the SMI steel group what it is today. I just started and guided its development."



Fall Creek Vineyards of Tow



For rancher Ed Auler, a business trip to France in 1973 transformed his Hill Country ranch. "My wife Susan and I had gone to France to look over some Charolais cattle breeds," Auler recalled. "While there, we toured many vineyards, and I became fascinated with wine. I was even more fascinated by the similarity of this French vineyard region with the geology of Texas Hill Country...the limestone hills on one side, the granite outcroppings on the other side, and the sandy loam reminded me of my ranchlands in Texas."

In 1975, after consulting with agricultural experts, Auler planted grapevines on a quarter-acre test site on his 7,000-acre Fall Creek Ranch bordering Lake Buchanan, and as he put it, "The phenomenal vine growth surprised the skeptics.

"Nothing comes close to grapes agriculturally in yield. There is the potential of producing eight tons of grapes per acre—that's 6,000 bottles of wine per acre per year," Auler added.

While cattle ranching still continues, the Aulers have watched their Fall Creek Vineyards prosper since that first harvest. They attribute the success of their

current 65 acres of vineyards to good grape variety, the agreeable climate in the Highland Lakes region, and the adjacent Lake Buchanan, which acts as a natural evaporative cooler when the winds move across the water over the vineyards.

"Most of the great vineyards in France and California are close to, or affected by, a body of water. I know that being next to Lake Buchanan adds to the success of my vines," said Auler.

The vineyards are irrigated from a well that is recharged by the Ellenburger Aquifer. (In fact, groundwater supplies more than 90,000 people in the Central Texas area and also feeds water to the Colorado River basin.)

Fall Creek Vineyards produces nine different wines, including Chardonnay, Sauvignon Blanc, White Zinfandel, Chenin Blanc, Emerald Riesling, Granite Blush, and Cabernet Sauvignon. Also produced are a proprietary red wine (Cabernet Sauvignon) and a proprietary white wine (Semillon Sauvignon Blanc blend).

The Aulers sell 90% of their wines in Texas, with the remainder marketed in New York City, Washington D.C., Los Angeles, New Orleans, London, and other locations. American Airlines selected Fall Creek Vineyards Sauvignon Blanc to be served on flights from Dallas to Tokyo and London. Discussions are underway to market Fall Creek wines in Japan. "We want to do the best we can with what we have and we do plan to be a national and international player in the wine world," said Auler.

By 1982 the success of his wines forced Auler to expand the winery from his garage into larger energy-efficient quarters. The facility is structurally designed with double concrete walls and is insulated with the highest rated materials. The oak barrel aging room has heavy barn doors, which originally belonged to the French scientist Louis Pasteur. The doors provide natural insulation. Areas like the fermentation room, in which each vat is temperature controlled to slow down the fermentation process, demand energy-saving equipment. Although energy-efficient equipment is initially more expensive, Auler says the equipment pays for itself with the savings seen in monthly electric bills.

Fall Creek Vineyards contributes to the Highland Lakes economy. The Aulers employ up to 200 people for seasonal work and attract as many as 300 to 1,100 people each Saturday for tours.

Small businesses like the Aulers' are the backbone of the Central Texas area, and LCRA serves these businesses in many ways. LCRA's Economic/Industrial Development section works with communities to attract businesses and build their economic base.

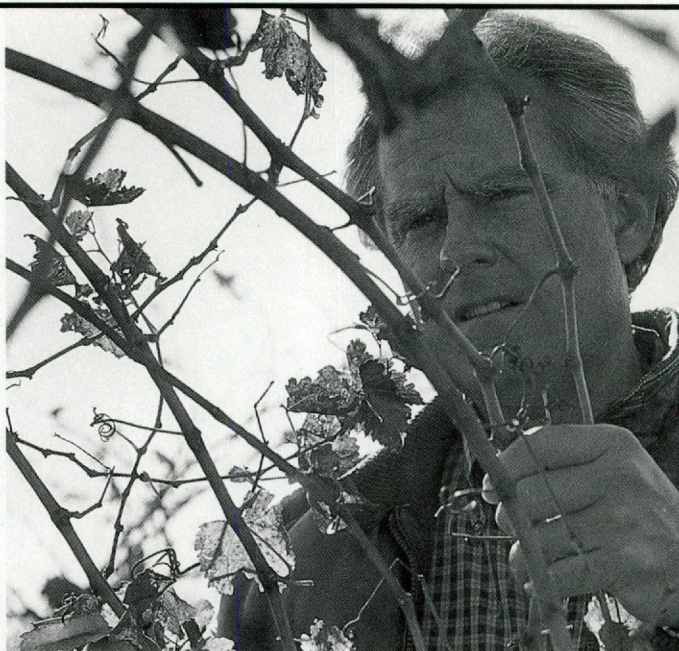
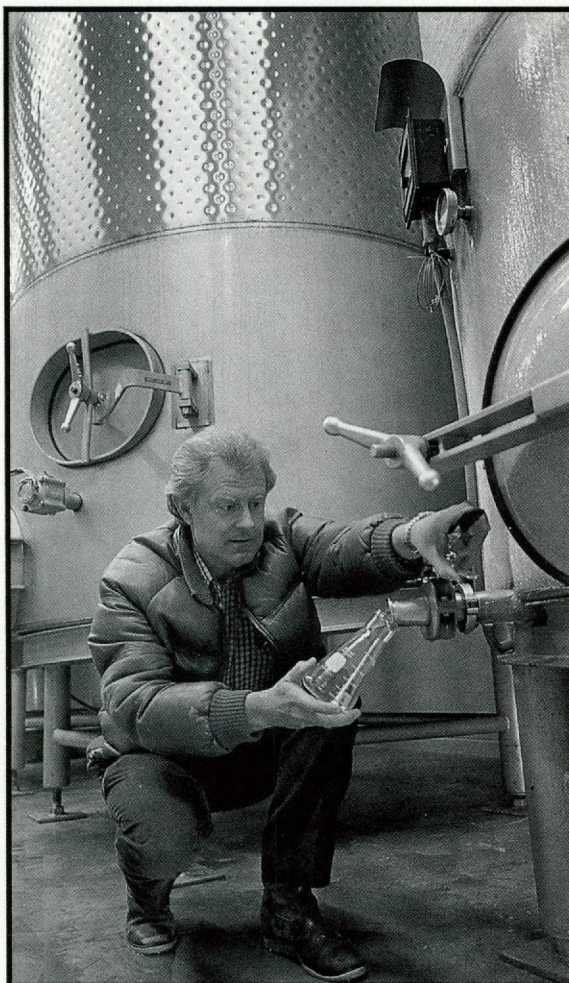
LCRA works with its wholesale customers to maintain low-cost, reliable electric service to help businesses like Fall Creek Vineyards expand their operations and conserve their electric consumption. Central Texas Electric Cooperative provides power to Fall Creek Vineyards.

As industries and population grow in the Central Texas area, LCRA strives to protect and improve water quality throughout its ten-county water district. LCRA's Groundwater Quality Monitoring Program includes sampling and analysis of 75 private wells to determine the current water quality characteristics of

the four major and six minor aquifers in the LCRA district. Routine surface testing of the Colorado River also identifies potential or current water quality problems. These programs are part of LCRA's leadership role in protecting water quality, as mandated by a policy adopted by the LCRA Board of Directors in August 1988.

Through the years, the Highland Lakes have provided Central Texas residents with an ample water supply, recreation opportunities, and hydroelectric generation.

Ed Auler has seen the importance of a healthy land enhanced by the lakes and the availability of low-cost electricity for his industrial needs. He predicts that "the Hill Country will become the premier area in Texas for vineyards, and the Highland Lakes will greatly benefit our industry."



Ed Auler attributes some of the success of his vines to the evaporative cooling effects of nearby Lake Buchanan.

The Aulers depend on Central Texas Electric Cooperative for reliable power to maintain temperatures in the fermentation vats.

Recreational and tourist interests

Recreational activities are a major economic force in Texas and in the LCRA service area.

It is a primary industry in the Highland Lakes region, according to figures from the Highland Lakes Tourist Association. Tourism generated more than \$55 million to the Burnet and Llano County economies in 1986 and provided jobs to more than 600 residents in that area.

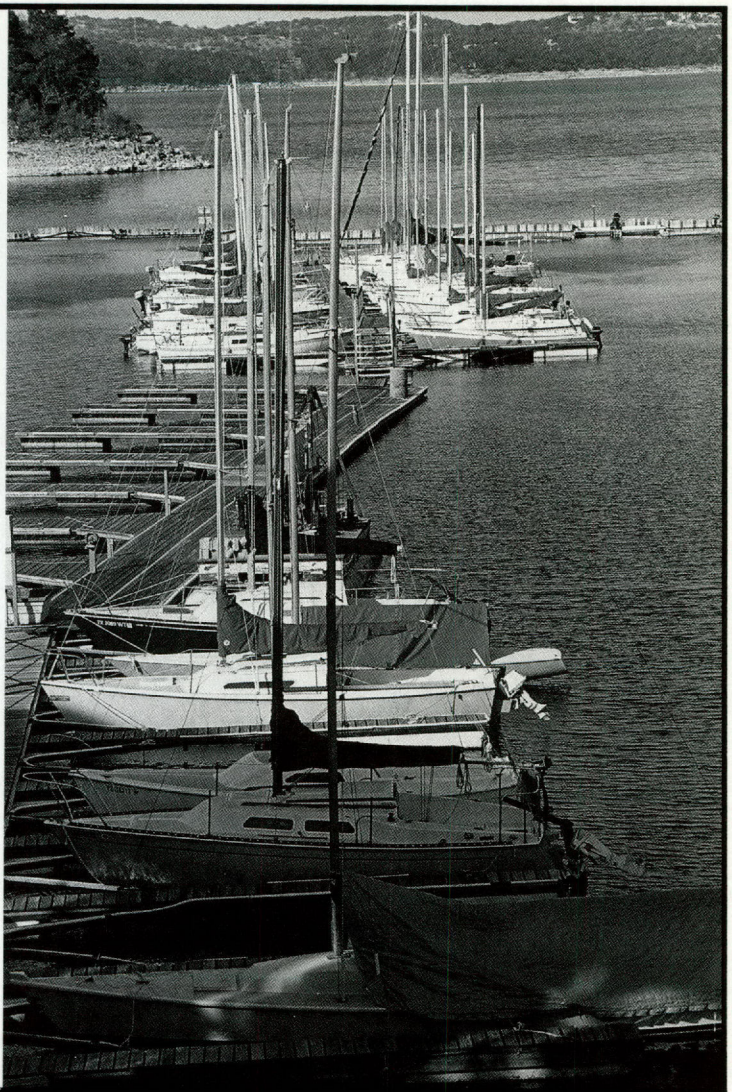
Deer hunting is the largest single industry in several counties in LCRA's service area. Hunters are attracted to the Hill Country because of the quality and quantity of deer and the availability of hunting leases. Texas Parks and Wildlife Department estimates that for every buck that is "harvested," \$750 is pumped into the local economy in leases, food, lodging, am-

munition and other items. For Llano, Sutton, Edwards, Gillespie and other counties, hunting provides about \$64 million annually to the local economy. The counties not only benefit during hunting season but during the summer as well, when hunters return to look over leases or vacation with their families.

As fishing and other water sports draw more visitors to Central Texas from the Hill Country to the Coast, the importance of recreation will continue to grow in the LCRA service area. LCRA's commitment to stimulating growth and diversity in the area economy extends to recreational development on its lands and support in attracting industries through its Economic/Industrial Development program.



Marshall Ford Marina has boat docking and storage facilities on Lake Travis, which draws wind surfers, divers, fishing enthusiasts, and those who just want to relax near or in the water.



Marshall Ford Marina on Lake Travis



After years of traveling the world, David J. Abel ventured into Texas through the dry West and by chance toured the Highland Lakes region. "The hills were green; there was a soft rain. It was beautiful. I decided that this is where I want to be....It wasn't until much later that I discovered that that was the first rain in six months!"

Water and rainfall are important components of Abel's life. After moving to Texas from New Zealand in 1978, Abel began operating the Marshall Ford Marina on Lake Travis and is acutely conscious of the impact of water quality and supply on water recreation and the consequent economic health of the region. The marina, located in a cove named Defeat Hollow, can house 300 motor boats out of the water in pigeon-hole, or rack, storage and 120 sailboats along floating docks. "Marinas, overnight facilities, and parks in the area contribute to the attraction of the Highland Lakes, but the tourist potential is virtually untapped," Abel said.

As a former commercial property developer, Abel is positive about growth around the Highland Lakes in the past ten years. "When I first moved here, I could look out at night and see only a few lights. Now there

is a 180-degree panorama of lighted skyline. With judicious planning, we can encourage this development and at the same time, protect the environment. We look to the LCRA Board and staff for guidance." Abel is an advocate of LCRA's 1988 policy to assume a leadership role in protecting the water quality of the Colorado River.

Abel participated in LCRA's outreach to the public in the formation of important decisions on water issues. He testified at several of the eight water policy hearings in 1988 and served on the task force to develop the LCRA Water Management Plan. This plan, to be submitted to the Texas Water Commission in 1989, is based on Board policies and regulations concerning LCRA's responsibilities in water supply, pricing, flood control, reservoir releases, water quality, recreation, protection of bays and estuaries, and LCRA's role in developing regional water and wastewater systems.

"Meeting with others who depend on the Colorado River in so many different ways--the fishermen from the bays and estuaries, rice farmers, municipal officials, and tourist industry representatives--gave us all a broad perspective on the diverse demands on the river and its resources--and the necessity for compromise," Abel said. However, Abel's prime interest, as true of most people, is the impact of social and governmental actions on his enterprise and his home.

Abel's commitment to and respect for the river are evident. Walking out on the docks at Marshall Ford Marina on a crisp December morning, he pointed out his favorite view of the cove--masts of the sailboats swaying, the steady ripple of the water from the first breeze of an incoming norther, the workmen winterizing the motor boats, all sheltered by the sharp steep limestone walls of Defeat Hollow. "It's never the same. Every day there is change."

LCRA, too, observes and anticipates growth and changes that affect the river, not just in the Highland Lakes region, but throughout the ten counties along the Colorado. Acting to make change favorable for the district, LCRA maintains an environmental count of the pulse of the Colorado. In addition to water sampling programs and special research, LCRA regulates private septic systems along the Highland Lakes and coordinates with the Texas Water Commission the monitoring of wastewater discharges into the Colorado. With the aggressive policies passed by the Board and the force of responsibilities clarified in the LCRA Water Management Plan, LCRA is moving into a new era in its efforts to protect and preserve this vital resource for Central Texas.

Agricultural producers

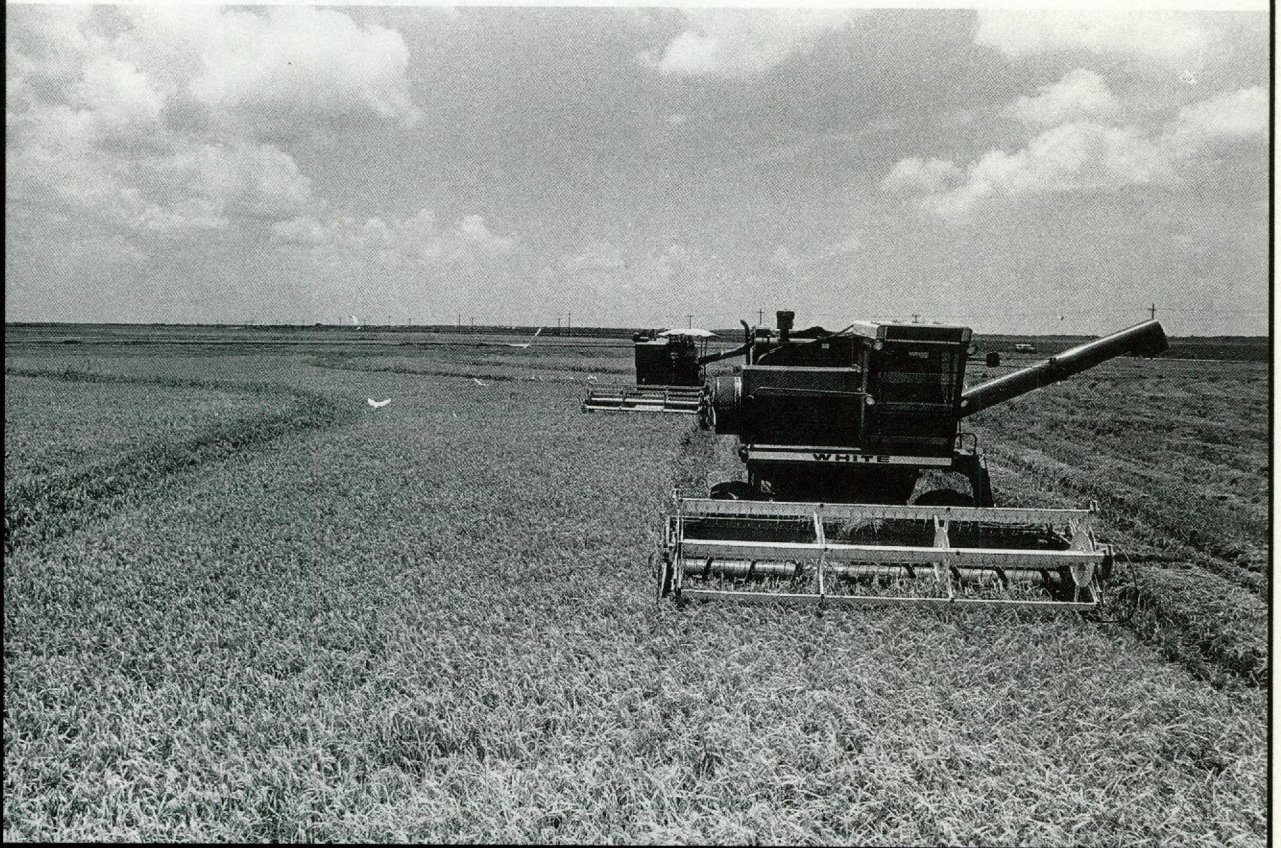
Rice farming began in the lower Colorado River basin in the early 1800s, and the three Gulf Coast counties in LCRA's statutory district -- Colorado, Wharton and Matagorda Counties -- contain some of the best rice-growing land in Texas. This area produced 42% of the Texas rice crop in 1987, helping the state rank fourth, behind Arkansas, California, and

Louisiana, in total rice production.

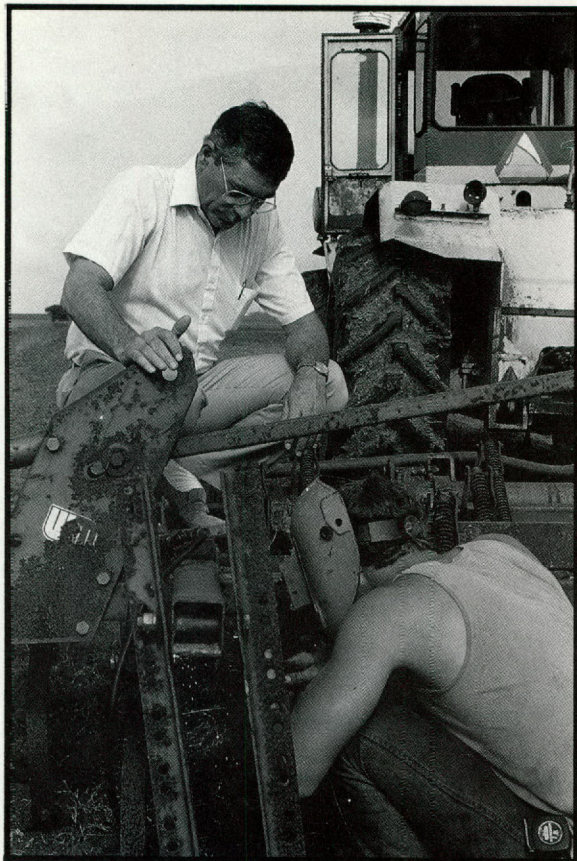
Rice is the biggest cash crop produced in these counties, contributing up to half of the agricultural income during 1987. However, rice-growing demands more water than most other crops --and rice irrigation accounts for 75-80% of the water used in the lower Colorado River basin.



The Coastal Plains is an area perfect for rice farming. The level terrain simplifies construction of levees and contouring of slopes. The clay base of the topsoil holds the water vital to rice production. And the Colorado River is an abundant source of water as it flows on its last winding trail to the Gulf of Mexico.



Mike Ottis, rice farmer from Wadsworth



One day, biotechnology will implant a gene that will make rice grow without abundant water, but rice is a water grass, and until that scientific miracle occurs, we farmers will need good, dependable supplies of water." That is the reality of rice farming today, as Mike Ottis, a farmer from Matagorda County, sees it.

As a result, Ottis and other Coastal Plains farmers participate in discussions about supplies as demand increases from cities and industries. "We attend the LCRA hearings, and we try to have representatives at other government meetings on water issues," said Ottis, whose rice farm is near Wadsworth, eight miles south of Bay City. He is a member of the Matagorda Water Council established by LCRA in 1987 and serves with other local groups addressing water problems. "In addition to the value of a forum to present our needs at the LCRA meetings, the dialogue between water users helped relations. There was a time when a rice farmer didn't mention his occupation when he visited the Highland Lakes--or Austin.

"LCRA's local efforts to reduce water loss in its own irrigation delivery system has made all of us conscious of the need for finding new ways to manage irrigation water," Ottis said. "Clearing the vegetation from the banks of the El Maton, LCRA's main canal, and others in the system will reduce water loss."

The "water bosses," LCRA employees who order and monitor the flow of water, check the canals for breaks and alert farmers to problems in their canals that could mean water losses.

"Our use of water boxes eliminates wash-out of the levees and helps save water--and time," Ottis said. "Without these metal gates, when you spade an opening in the levee to irrigate a paddy, the water often breaks down the opening. I used to sit my kids down for a temporary dam, until their mother made me stop."

Until rice is in the five- to six-leaf stage, the fields are "flushed," or "wet over"; that is, the paddies are partially flooded with water released at the highest elevation and allowed to flow through the paddies to fill those at the lowest point of the field. After that, the paddies are under continuous flooding from mid-May until late July. The fields are then drained, and harvest begins when fields are dry enough for combines to enter for the first cutting. The fields are flushed or flooded again (as necessary) to stimulate growth for a second cutting in late October.

Ottis' farm is very close to the river, and he has seen it flood his fields. At such times, LCRA attends one of its historic duties, lessening flood damage as much as possible in the river basin.

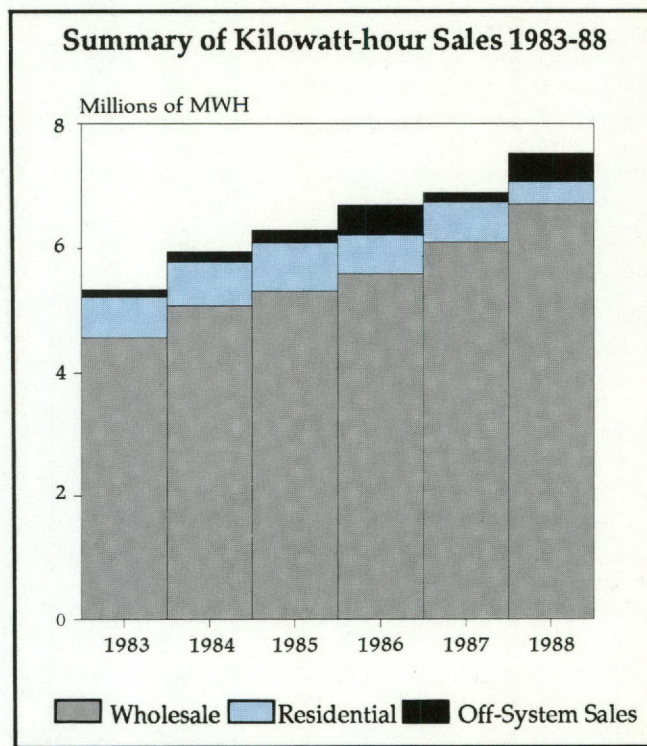
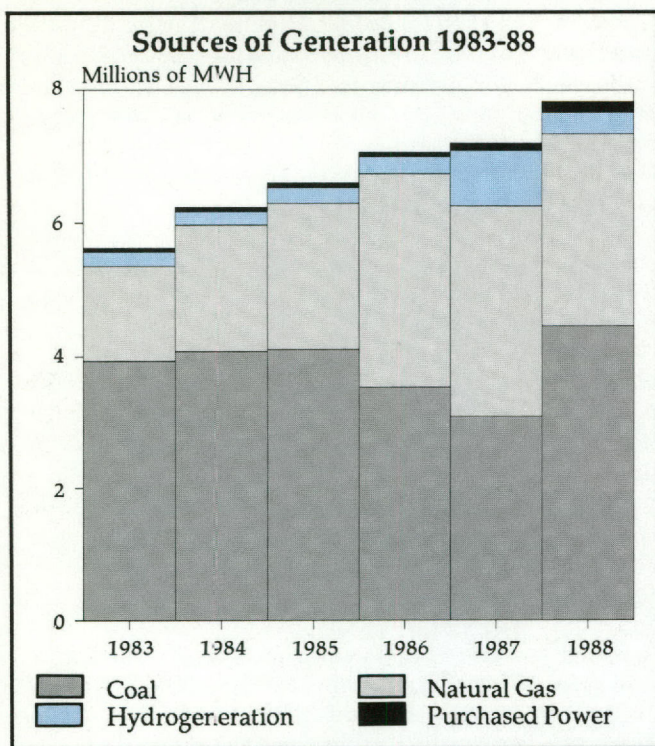
The seasonal irrigation releases are welcomed all along the river, because the flow improves the quality of water. LCRA is conducting pollution and instream-flow studies to determine the most efficient actions to improve water quality. LCRA is also conducting regional wastewater studies and is working with cities to improve the quality of treated wastewater discharged into the Colorado.

Ottis has moved with the changes in rice production since he began farming in 1963, a few years after graduating from St. Edward's University. Through the years he added cattle raising and the seed and rice drying businesses to farming, but now he says he is "just a rice farmer." Ottis contracts for aerial planting of his fields, but he and one of his sons handle the remaining field work, made easier through improved contouring equipment and sophisticated combines.

Despite Ottis' time spent in remaining current on technological advances in agriculture and in farming, he reserves a part of his life for family and the traditional pleasures of rural life--hunting, being a part of community projects, and enjoying fish fries down on the river bank with speckled trout and redfish emerging crisp and golden from a deep kettle. "You can't beat it...And I don't want this to change."

Operational Highlights

	<u>Fiscal Year Ended June 30</u>		<u>Percent Change</u>
	<u>1988</u>	<u>1987</u>	
	(Thousands of Dollars)		
Operating Revenues	\$ 245,737	\$ 210,930	16.5%
Operating Expenses (excluding depreciation)	\$ 188,630	\$ 167,984	12.3%
Net Income	\$ 20,398	\$ 9,343	118.3%
Debt Service Coverage Ratio	1.41x	1.27x	11.0%
Generation (MWH)	7,658,000	7,085,000	8.1%
Sales (MWH)	7,515,000	6,892,000	9.0%
Net Peak Demand (MW)	1,494	1,500	(.4%)



Generation Facilities and Net Capacities

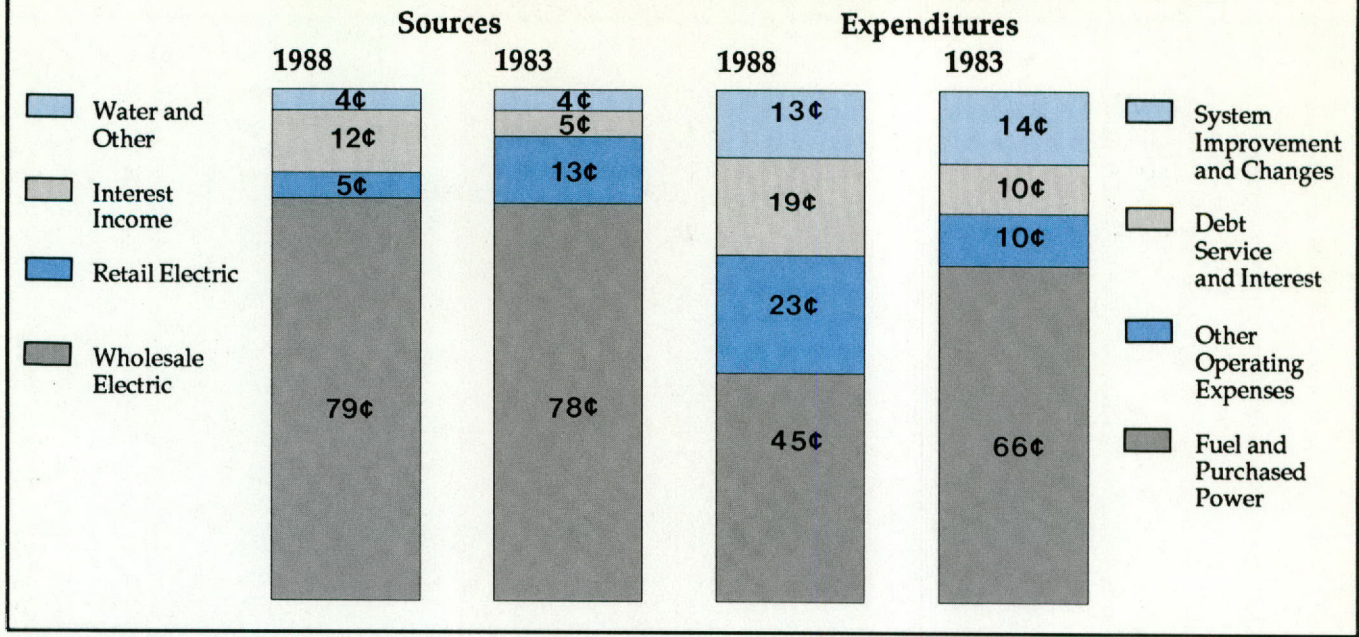
Plant	Net Capacity (MW)
Fayette Power Project (Coal) (La Grange)	955*
Sim Gideon Steam Plant (Natural Gas) (Bastrop)	620
Thomas C. Ferguson Power Plant (Natural Gas) (Marble Falls)	430
Hydro Plants	239
Total	2,244

*Includes LCRA's 50% share of capacity of Units 1 and 2.

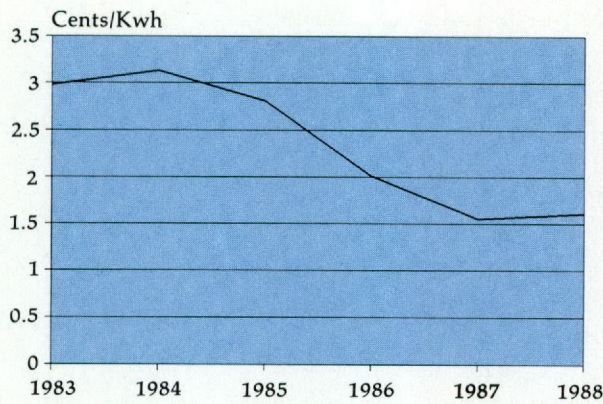
System Statistics

Transmission Lines	Miles
345 KV	285
138 KV	1,504
69KV	530
Total	2,319
Customers and Areas Served	Number
Electric Cooperatives	11
Cities	33
Counties - Electric customers	41
Counties - Water service	10

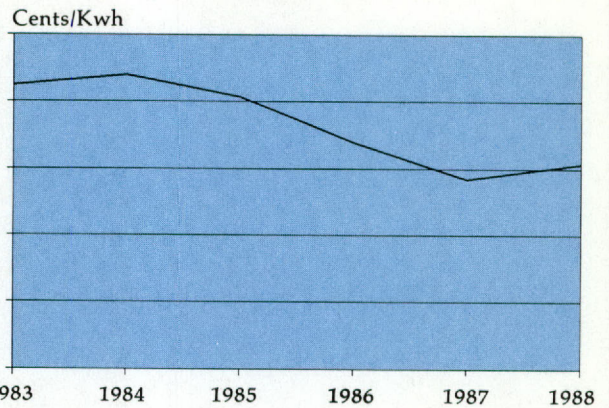
Sources and Expenditures of Revenue Dollar 1983 and 1988



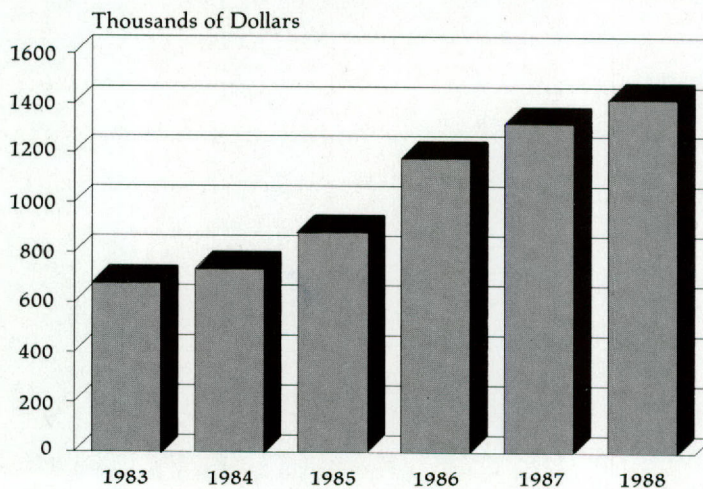
Average Cost of Fuel per Kilowatt-hour 1983-88



Wholesale Electric Revenue per Kilowatt-hour Sold 1983-88



Growth of Net Utility Property, Plant and Equipment 1983-88



Comparative Financial Information

(Dollars in Thousands)	<u>1988</u>
Operating Revenues	\$ 245,737
Interest and Other Income,	
Less Amounts not Available for Debt Service	<u>15,406</u>
Total	261,143
Operating Expenses,	
Excluding Depreciation	<u>188,630</u>
Net Revenues Available for Debt Service	<u>\$ 72,513</u>
Debt Service Requirement*	<u>\$ 51,507</u>
Debt Service Coverage Ratio	<u>1.41 x</u>
Electric Revenue per KWH Sold (¢):	
Wholesale	3.07
Retail	3.73
Utility Plant @ June 30	\$1,420,421
Accumulated Depreciation @ June 30	\$ 214,002
Long-Term Debt @ June 30	\$1,315,140
Statistics	
MWH Sales	
Wholesale	6,707,783
Retail-Residential	95,897
Retail-Other	<u>260,137</u>
Subtotal	7,063,817
Economy Energy and Other	<u>451,114</u>
Total MWH Sales	<u>7,514,931</u>
MWH Generation and Purchased Power	
Hydraulic	322,368
Steam:	
Gas	2,873,852
Coal	4,462,050
Purchased Power	<u>166,735</u>
Total Generation and Purchased Power	<u>7,825,005</u>
Net Peak Demand (MW)	1,494
Electric Customers:	
Wholesale	44
Retail-Residential	17
Other	<u>48</u>
Total Electric Customers	<u>109</u>
Number of Employees @ June 30	1,923

Fiscal Year ended June 30,

1987	1986	1985	1984	1983	1982	1981	1980	1979
\$ 210,930	\$ 243,839	\$ 274,443	\$ 279,318	\$ 241,940	\$ 210,020	\$ 191,817	\$ 155,501	\$ 123,883
<u>23,934</u>	<u>27,801</u>	<u>21,620</u>	<u>10,540</u>	<u>8,723</u>	<u>10,593</u>	<u>8,714</u>	<u>5,453</u>	<u>5,202</u>
234,864	271,640	296,063	289,858	250,663	220,613	200,531	160,954	129,085
<u>167,984</u>	<u>195,257</u>	<u>229,696</u>	<u>233,756</u>	<u>195,867</u>	<u>170,046</u>	<u>150,319</u>	<u>121,234</u>	<u>96,545</u>
<u>\$ 66,880</u>	<u>\$ 76,383</u>	<u>\$ 66,367</u>	<u>\$ 56,102</u>	<u>\$ 54,796</u>	<u>\$ 50,567</u>	<u>\$ 50,212</u>	<u>\$ 39,620</u>	<u>\$ 32,540</u>
<u>\$ 52,645</u>	<u>\$ 47,994</u>	<u>\$ 42,829</u>	<u>\$ 38,091</u>	<u>\$ 35,261</u>	<u>\$ 29,810</u>	<u>\$ 27,300</u>	<u>\$ 23,559</u>	<u>\$ 17,373</u>
<u>1.27 x</u>	<u>1.59 x</u>	<u>1.55 x</u>	<u>1.47 x</u>	<u>1.55 x</u>	<u>1.70 x</u>	<u>1.84 x</u>	<u>1.68 x</u>	<u>1.87 x</u>
2.84	3.39	4.07	4.40	4.24	3.85	3.34	3.27	2.92
3.68	4.08	4.77	5.18	5.11	4.65	4.14	3.97	3.56
\$1,320,599	\$1,179,378	\$ 884,251	\$ 734,956	\$ 677,292	\$ 608,512	\$ 578,125	\$ 555,241	\$ 503,182
\$ 200,304	\$ 184,929	\$ 170,505	\$ 154,432	\$ 139,228	\$ 124,635	\$ 109,860	\$ 95,970	\$ 85,152
\$1,443,564	\$1,206,883	\$ 728,208	\$ 684,085	\$ 324,039	\$ 427,953	\$ 435,723	\$ 398,150	\$ 374,388
6,099,374	5,590,143	5,314,239	5,080,024	4,569,471	4,248,793	3,924,087	3,523,770	3,372,397
235,577	269,792	268,232	249,360	229,288	210,905	207,840	185,835	183,400
<u>407,924</u>	<u>546,283</u>	<u>512,803</u>	<u>455,459</u>	<u>419,380</u>	<u>407,615</u>	<u>433,366</u>	<u>444,463</u>	<u>419,155</u>
6,742,875	6,406,218	6,095,274	5,784,843	5,218,139	4,867,313	4,565,293	4,154,068	3,974,952
<u>149,150</u>	<u>287,832</u>	<u>200,381</u>	<u>164,263</u>	<u>120,601</u>	<u>226,385</u>	<u>818,478</u>	<u>356,914</u>	<u>54,370</u>
<u>6,892,025</u>	<u>6,694,050</u>	<u>6,295,655</u>	<u>5,949,106</u>	<u>5,338,740</u>	<u>5,093,698</u>	<u>5,383,771</u>	<u>4,510,982</u>	<u>4,029,322</u>
827,731	254,347	228,416	204,084	218,952	387,303	396,097	205,948	223,243
3,164,320	3,198,427	2,185,624	1,891,473	1,417,486	1,213,956	1,492,992	2,914,792	3,717,528
3,093,259	3,535,669	4,110,758	4,076,818	3,933,865	3,721,448	3,689,110	1,538,090	175,013
<u>101,805</u>	<u>66,106</u>	<u>73,029</u>	<u>63,909</u>	<u>55,361</u>	<u>53,505</u>	<u>55,701</u>	<u>81,882</u>	<u>129,167</u>
<u>7,187,115</u>	<u>7,054,549</u>	<u>6,597,827</u>	<u>6,236,284</u>	<u>5,625,664</u>	<u>5,376,212</u>	<u>5,633,900</u>	<u>4,740,712</u>	<u>4,249,951</u>
1,500	1,418	1,451	1,326	1,140	1,106	1,038	1,046	863
42	41	41	41	41	41	41	41	41
13,240	23,056	22,245	20,928	19,589	18,670	17,918	17,239	16,566
<u>3,890</u>	<u>5,518</u>	<u>5,153</u>	<u>4,799</u>	<u>4,404</u>	<u>4,168</u>	<u>3,995</u>	<u>3,697</u>	<u>3,527</u>
<u>17,172</u>	<u>28,615</u>	<u>27,439</u>	<u>25,768</u>	<u>24,034</u>	<u>22,879</u>	<u>21,954</u>	<u>20,977</u>	<u>20,134</u>
1,964	1,829	1,714	1,599	1,483	1,365	1,293	1,214	1,111

* For Fiscal Years 1985 through 1987, Debt Service Requirements have been revised to include all short-term and long-term obligations.

Lower Colorado River Authority

Balance Sheets

Assets

	<u>June 30,</u>	
	<u>1988</u>	<u>1987</u>
	(Thousands of Dollars)	
Utility Plant		
Plant in service:		
Electric	\$1,155,415	\$ 687,150
Irrigation	12,784	12,856
	<u>1,168,199</u>	<u>700,006</u>
Less accumulated depreciation	214,002	200,304
	954,197	499,702
Construction work in progress	252,222	620,593
Net Utility Plant	<u>1,206,419</u>	<u>1,120,295</u>
Other Physical Property, net	<u>1,552</u>	<u>2,256</u>
Restricted Funds (Cash and Investments)		
General Improvement and Construction Funds	133,016	379,107
Less amount due Revenue Fund	12,936	6,063
	120,080	373,044
Debt service funds	128,473	141,341
Debt service funds with paying agent	45,856	41,075
Contingency and other restricted funds	12,737	7,142
Total Restricted Funds	<u>307,146</u>	<u>562,602</u>
Current Assets		
Revenue Fund (cash and investments)	7,464	8,712
Amount due from General Improvement and Construction Funds	12,936	6,063
	20,400	14,775
Accounts and notes receivable, net	39,331	22,813
Inventories:		
Fuel	33,591	25,528
Materials and supplies	20,653	19,304
Other	13,092	16,595
Total Current Assets	<u>127,067</u>	<u>99,015</u>
Notes Receivable	<u>6,634</u>	—
Deferred Charges		
Unamortized losses on refunded debt	108,672	109,666
Contract extension settlement with major customers	18,588	18,588
Coal contract settlement	18,811	—
Unamortized debt expense	18,438	18,741
Costs to be recovered from future revenues	17,734	18,094
Gas exploration and development	10,624	—
Powell Bend lignite mine costs	8,161	10,076
Other deferred charges	6,709	—
Total Deferred Charges	<u>207,737</u>	<u>175,165</u>
Total Assets	<u>\$1,856,555</u>	<u>\$1,959,333</u>

The accompanying notes are an integral part of these financial statements.

Capitalization and Liabilities

	June 30,	
	1988	1987
	(Thousands of Dollars)	
Capitalization		
Contributed capital:		
U.S. Government Agencies	\$ 26,669	\$ 25,669
Contributions in aid of construction	3,036	3,215
	29,705	29,884
Capital derived from earnings:		
Balance, beginning of year	304,512	295,169
Net income for the year	20,398	9,343
Balance, end of year	324,910	304,512
Capital reimbursable to U.S. Government	4,881	5,038
Long-term Debt:		
Senior and junior lien revenue bonds, including amounts due within one year of \$6,040,000 and \$12,220,000	1,116,515	1,127,764
Subordinate debt: commercial paper and adjustable rate revenue bonds	198,625	315,300
	1,315,140	1,443,564
Accrued interest	46,728	42,074
	1,361,868	1,485,638
Total Capitalization	1,721,364	1,825,072
Accounts Payable from Restricted Funds	7,265	9,448
Current Liabilities Payable from Revenue Fund	34,295	32,800
Deferred Credits and Other Long-Term Liabilities		
Unamortized gain on refunded debt	88,888	92,013
Unamortized gain on sale of retail districts	1,375	—
Amount due Pension Trust Fund	3,368	—
Commitments and Contingencies	—	—
Total Capitalization and Liabilities	\$1,856,555	\$1,959,333

Lower Colorado River Authority

Statements of Operations

	Year Ended June 30,	
	1988	1987
	(Thousands of Dollars)	
Operating Revenues		
Sales of electricity		
Wholesale	\$ 220,093	\$ 177,629
Retail	13,279	23,697
	233,372	201,326
Water and irrigation	7,316	5,278
Other	5,049	4,326
Total Operating Revenues	<u>245,737</u>	<u>210,930</u>
Operating Expenses		
Fuel	120,651	110,031
Purchased Power	3,423	2,147
Operation	47,010	38,374
Maintenance	17,546	17,432
Depreciation	19,821	17,933
Total Operating Expenses	<u>208,451</u>	<u>185,917</u>
Operating Income	37,286	25,013
Interest and Other Income	32,467	52,638
Income Before Interest Charges	<u>69,753</u>	<u>77,651</u>
Interest Charges		
Interest expense	105,025	112,740
Interest during construction	(50,617)	(51,566)
Net Interest Charges	<u>54,408</u>	<u>61,174</u>
	15,345	16,477
Costs To Be Recovered From Future Revenues	5,053	(7,134)
Net Income	<u>\$ 20,398</u>	<u>\$ 9,343</u>

The accompanying notes are an integral part of these financial statements.

Lower Colorado River Authority

Statements of Sources of Funds Used for Construction

	Year Ended June 30,	
	1988	1987
	(Thousands of Dollars)	
Funds From Operations		
Net income	\$ 20,398	\$ 9,343
Gain on sale of retail districts	(2,216)	(2,367)
Add (deduct) items not requiring (providing) funds:		
Interest during construction	(50,617)	(51,566)
Depreciation	19,821	17,933
Amortization of debt discount and expense	1,785	1,254
Amortization of Powell Bend Mine costs	1,787	263
Amortization of deferred gain on refunding	(3,125)	(2,771)
Amortization of deferred loss on refunding	994	196
Amortization of incentive retirement plan	1,214	—
Costs to be recovered from future revenues	(5,053)	7,134
Total Funds Used In Operations	(15,012)	(20,581)
Other Sources Of Funds		
Proceeds from issuance of revenue bonds	—	494,827
Proceeds from issuance of commercial paper	102,575	1,700
Proceeds from issuance of adjustable rate bonds	—	167,000
Proceeds from sale of retail districts	19,043	9,448
Accrued interest	4,653	(7,072)
Restricted funds, net	255,456	(17,332)
Other, net	8,748	(4,612)
	390,475	643,959
Changes in components of working capital:		
(Increase) decrease in current assets:		
Cash and investments	1,248	8,310
Due to/from restricted funds	(6,873)	1,952
Accounts and notes receivable	(16,518)	771
Inventory - fuel, materials and supplies	(9,412)	1,672
Other current assets	3,503	(1,176)
Increase (decrease) in current liabilities:		
Accounts payable from revenue fund	1,495	825
	363,918	656,313
Total Sources of Funds	348,906	635,732
Uses of Funds		
Payment of long-term debt	231,970	431,090
Contract extension settlement with major customers	—	18,588
Coal contract settlement	18,811	—
less: Interest charged to coal settlement	(411)	—
Gas exploration and development	10,624	—
Deferred loss on advance refunding, net	—	81,512
Other deferred charges, net	8,310	2,174
Notes receivable	6,634	—
Total Uses of Funds	275,938	533,364
Funds Used for Construction	\$ 72,968	\$ 102,368
Funds Used for Construction		
(excluding interest during construction)		
Fayette Power Project, Unit 3	\$ 41,536	\$ 63,076
Cummins Creek Mine	1,991	14,093
Other	29,441	25,199
	\$ 72,968	\$ 102,368

The accompanying notes are an integral part of these financial statements.

Lower Colorado River Authority

Notes to Financial Statements

1. General

The Lower Colorado River Authority (LCRA) is an agency of the State of Texas created to control, store, and preserve the waters of the Colorado River within its reservoirs, regulate the flow of water to develop hydroelectric energy, provide water for irrigation and other useful purposes, aid in the prevention of flood damage, conserve and protect the soil and forests within its watershed, and construct and operate steam generating plants.

LCRA's electric generating facilities are comprised of six dams with installed hydroelectric net generating capacity of 239 MW, four gas-fired units having an aggregate net capacity of 1,050 MW, a 50% undivided ownership interest in two coal-fired units having an aggregate net capacity of 1,100 MW and a wholly-owned 405 MW coal fired unit. LCRA also has two irrigation systems with approximately 560 miles of canal.

The coal-fired units are located at a site known as the Fayette Power Project (FPP) and operate pursuant to a

participation agreement with the City of Austin (Austin) which designates LCRA as project manager. Each party is entitled to 50% of the generating capacity in two of the units. LCRA's net investment in the jointly-owned facilities was \$ 185,716,000 and \$185,866,000 at June 30, 1988 and 1987, respectively. LCRA's investment in this project is financed with LCRA funds, and all operations are accounted for in the same manner as wholly-owned facilities. The third unit, entirely owned by LCRA, was placed in commercial operation on April 29, 1988.

LCRA's capital has been provided by accumulated earnings, various federal and state agencies, and contributions in aid of construction.

Approximately 96% of LCRA's operating revenues are derived from its electric utility business. Sales of electricity to two wholesale customers represent approximately 22% and 10% of LCRA's total electric sales revenues.

2. Significant Accounting Policies

Utility Plant: Utility plant consists of generating plants, electric transmission and distribution facilities, dams, reservoir land, irrigation systems and related projects under construction, including, at June 30, 1988, approximately \$ 195,277,000 associated with LCRA's lignite acquisition program. These assets are recorded at cost which includes materials, labor, overhead, and interest during construction. The costs of repairs and minor replacements are charged to operating expense as appropriate. Costs of renewals and betterments are capitalized. The original cost of utility plant retired and the cost of removal, less salvage, are charged to accumulated depreciation.

Inventories: Coal is stated at cost determined on the last-in, first-out basis. Fuel oil and materials and supplies are stated at average cost.

Revenues: Revenues from the sale of electricity, including amounts resulting from application

of a fixed fuel factor, are recorded based on billings to customers. Under rules established by the Public Utility Commission of Texas (PUC), LCRA also records over or under recoveries of fuel costs which are periodically reconciled through adjustment of the fixed fuel factor. Over-recoveries may result in refunds to customers.

Rates and Regulations: The PUC has exclusive original jurisdiction over wholesale electric rates and other services which comprise approximately 90% of LCRA's operating revenues. The determination of LCRA's electric rates is based on LCRA's cost of operations, debt service and debt service coverage requirements. It is the opinion of counsel to LCRA that a Texas court applying Texas law ultimately would conclude that the PUC is required to approve rates and charges for LCRA's electric power and energy sufficient, among other things, to enable LCRA to pay the interest on and principal of all bonds issued under the LCRA enabling act and to

fulfill the terms of any agreements made with the holders of such bonds.

On September 21, 1988, the PUC approved a stipulated agreement between LCRA and its customers to increase wholesale rates by approximately 9.2%. These rates went into effect on October 13, 1988. On November 3, 1988, LCRA filed a request for an electric rate increase of approximately 17.8%. The proposed rates, if approved by the PUC, would become effective June 1989.

Water rates are established by LCRA's Board of Directors based upon the cost of providing service. Customers may appeal the rates to the Texas Water Commission.

Interest During Construction: Interest is capitalized as part of the cost of property under construction that is financed with debt proceeds. The amount capitalized is interest paid from debt proceeds net of interest earnings on Construction Fund investments.

Lignite Exploration, Evaluation and Mine Development Costs: All costs associated with exploration, evaluation, and development are capitalized as incurred and amortized on the units-of-production method based on the estimated tons to be recovered.

Gas Exploration and Development: LCRA has adopted the full cost method of accounting for natural gas exploration. Under this method all costs directly associated with acquisition, exploration and development are capitalized and amortized to expense over the life of proved reserves on a units-of-production basis.

Contract Extension Settlement With Major Customers: In May 1987, LCRA completed negotiations with two major wholesale customers who desired to be relieved of their obligations under wholesale contracts signed in 1974 and to construct their own generating facilities. Under the terms of the settlement, the customers agreed to continue taking power under the wholesale contracts and signed an extension of their contracts to 2016; LCRA agreed to reimburse the customers for their costs incurred in planning generating facilities. These costs will be amortized over the period affected by the contract extension, beginning in 1993.

Coal Contract Settlement: On January 18, 1988, LCRA settled a coal supply contract lawsuit with Decker Coal Company. The agreement called for a net payment by

LCRA of \$18,400,000 in lump sum to settle all matters and litigation relating to the coal supply contract. These costs will be amortized on a straight line basis until the year 2003, the last year LCRA was to have taken coal under the contract. Interest is being capitalized on the unamortized balance which totaled \$411,000 at June 30, 1988.

Costs to be Recovered from Future Revenues: Certain expenses included in net income by an unregulated enterprise are recovered by

LCRA through inclusion of debt service in rates established by the PUC. To the extent that those expenses will be recovered through rates charged in subsequent years, LCRA defers those expenses. Likewise, certain revenues are deferred until such time as they will be matched with expenses in the rate-making process. Thus, the reported results of operations better reflect the economic effects of regulation. Costs and revenues deferred in the twelve months ended June 30, 1988 and 1987 are, as follows:

	<u>FY 1988</u>	<u>FY 1987</u>
	(Thousands of Dollars)	
Current Depreciation and Amortization:		
Depreciation of debt-funded plant	\$ 14,268	\$ 12,322
Amortization of debt discount and expense	1,785	1,254
Amortization of gain on refunding	(3,125)	(2,771)
Amortization of loss on refunding	994	196
Other amortization	<u>2,064</u>	<u>207</u>
	15,986	11,208
Less: Revenues collected for debt service	14,617	11,161
Interest income to be applied against future costs net of interest income used for debt service	(3,684)	7,181
Costs to be recovered from future revenues	<u>\$ 5,053</u>	<u>\$ (7,134)</u>

Depreciation and Amortization: Depreciation is provided using the straight-line method over the estimated useful lives of the various classes of plant. Annual depreciation expenses, expressed as a percentage of average depreciable utility plant, were approximately 2.4% and 2.6% for 1988 and 1987, respectively.

Amortization of debt discount and expense are computed on the interest and straight line methods, respectively, over the life of the related bond issues.

Gains or losses on refundings are deferred and amortized proportionally over the life of the refunding bond issue.

3. Deposits and Investments

Texas law and LCRA policy require that deposits be placed in banks located in Texas. Board policy requires that demand deposits be collateralized with securities or surety bonds to the extent not insured by the Federal Deposit Insurance Corporation (FDIC). Securities that may be pledged as collateral are limited to direct obligations of the United States or obligations of public agencies approved by the Texas Attorney

General.

LCRA's demand deposits at June 30, 1988 and 1987 were entirely insured by federal depository insurance or collateralized with securities held at the Federal Reserve Bank in LCRA's name separate and apart from the assets of the depository banks.

LCRA's investment activities are governed by state statutes, bond resolutions, and LCRA policy. Priority reserve funds may be in-

vested in obligations of the U. S. Treasury, federal agencies and instrumentalities, State of Texas bonds, and other state obligations. Priority bond funds and other funds may be invested in the same types of securities as well as in collateralized certificates of deposit and repurchase agreements.

The Governmental Accounting Standards Board (GASB) Statement No. 3, "Deposits with Financial Institutions, Investments (including

Repurchase Agreements), and Reverse Repurchase Agreements," requires state authorities to categorize their investments into one of three credit risk categories. Category 1 includes investments that are insured or registered or for which the securities are held by LCRA's agent in LCRA's name; category 2 includes uninsured and unregistered investments for which the securities are held by the counterparty or by its trust department or agent in LCRA's name; category 3 includes uninsured and unregistered investments for which securities are held by the counterparty or by its trust department or

agent but not in LCRA's name. LCRA's investments at June 30, 1988 and 1987 were all classified as

category 1 and are summarized as follows:

Type of Investment	June 30, 1988		June 30, 1987*	
	Carrying Value	Market Value	Carrying Value	Market Value
	(Thousands of Dollars)			
U.S. Government Securities	\$197,799	\$192,579	\$493,155	\$496,007
Certificates of Deposit	14,402	14,402	32,662	32,662
Repurchase Agreements	73,955	73,955	10,263	10,263
	<u>\$286,156</u>	<u>\$280,936</u>	<u>\$536,080</u>	<u>\$538,932</u>

* FY 1987 amounts have been reclassified due to further clarification of risk categories by the GASB.

4. Long-term Debt

The principal amount of long-term debt outstanding at June 30, 1988 and 1987, consisted of LCRA Revenue Bonds and Tax-Exempt Commercial Paper as follows:

Description	Maturity Date January 1,		Interest Rates		June 30,	
	From	To	From	To	1988	1987
	(Thousands of Dollars)					
Priority Bonds:						
Series 1987 Refunding Revenue Bonds	1988	2014	3.900%	7.100%	\$ 514,525	\$517,445
Series 1986 Revenue Bonds	1992	2016	6.500%	8.375%	200,000	200,000
Series 1985 Refunding Revenue Bonds	1990	1999	7.000%	9.000%	48,955	48,955
Series 1985 Revenue Bonds	1991	2015	7.000%	8.900%	75,290	75,290
Series 1984 Revenue Bonds	1990	1996	8.750%	10.250%	34,000	34,000
Junior Lien Bonds:						
Series 1983 Refunding Revenue Bonds	1988	2007	8.750%	10.750%	292,785	302,085
					<u>1,165,555</u>	<u>1,177,775</u>
Less: Unamortized discount					(49,040)	(50,011)
					<u>1,116,515</u>	<u>1,127,764</u>
Subordinate Lien Debt:						
Adjustable Rate Revenue Bonds	1992	2017	Variable	Variable	167,000	167,000
Commercial Paper Total	—	—	Variable	Variable	31,625	148,800
					<u>\$1,315,140</u>	<u>\$1,443,564</u>

LCRA's debt has been rated by Moody's and Standard & Poor's, respectively, as follows:

Priority Bonds - A and A
Junior Lien Bonds - A and A-
Adjustable Rate Revenue Bonds -
 VMIG-1 and A-1+ short term,
 AA long term

Commercial Paper - P1* and A1

**Series "A" Commercial paper only,
 outstanding at June 30, 1987*

Debt service requirements are as follows:

Fiscal Year Ending June 30,	Principal**	Interest***	Total***
		(Thousands of Dollars)	
1989	\$ 16,040	\$ 83,807	\$ 99,847
1990	19,925	90,509	110,434
1991	21,490	88,952	110,442
1992	26,145	87,110	113,255
1993	28,195	85,249	113,444
1994 - 2017	<u>1,220,760</u>	<u>984,364</u>	<u>2,205,124</u>
Total	<u>\$1,332,555</u>	<u>\$1,419,991</u>	<u>\$2,752,546</u>

** excludes principal amount of commercial paper.

*** excludes interest payable from original issue bond proceeds, and variable-rate interest on commercial paper and Adjustable Rate Revenue Bonds.

Refunding Bonds: LCRA has three refunding bond issues outstanding. These include the Series 1983, Series 1985 and Series 1987 Refunding Revenue Bonds. Proceeds from the refunding bond issues are used to purchase U.S. Government obligations which will mature at such time and yield interest at such amounts so that sufficient monies are available for payment of principal and interest on the refunded bonds when due. None of the refunded bonds are included in the LCRA outstanding long-term debt at June 30, 1988 or 1987. The amounts of the refunded bonds outstanding at June 30, 1988 were:

Bonds Related to	Amount
1983 Refunding	\$359,100,000
1985 Refunding	217,000,000
1987 Refunding	421,215,000

Priority and Junior Lien Bonds: Under terms of the Bond Resolutions, the Bonds are limited obligations of LCRA payable solely from and secured by an irrevocable lien on LCRA's net revenues. The Resolutions provide that the Bonds maturing on and after January 1,

1994, are subject to optional redemption prior to their scheduled maturity dates beginning in 1993 at prices from 103% to 100%.

The Bond Resolutions contain certain restrictions and covenants including LCRA's agreement to establish and maintain rates and other charges to produce revenues sufficient to pay operating and maintenance expenses, to produce net revenues sufficient to pay the amounts required to be deposited in the debt service funds, to produce net revenues equal to at least the sum of (a) 1.20 times the annual debt service to be paid for the then outstanding priority bonds and (b) 1.10 times the annual debt service to be paid for the then outstanding junior lien bonds, and to pay any and every other indebtedness, liability or obligation whether arising out of contract or otherwise including any obligation arising out of a monetary judgment or order entered against LCRA by a court of competent jurisdiction.

The net revenues referred to in the preceding paragraph are defined in the Bond Resolution to include operating revenues plus in-

terest income (excluding interest income on Construction Fund investments and any proceeds derived from the sale of capital assets) less operating expenses excluding depreciation.

Commercial Paper: LCRA's Board of Directors adopted resolutions authorizing the issuance of short-term obligations in the amount of \$150,000,000 [Series A] and \$100,000,000 [Series B] to provide interim financing for FPP3, system improvements, acquisition of fuel reserves and facilities, refunding of outstanding debt, and the payment of interest on outstanding debt. The short-term obligations have been issued as tax-exempt commercial paper notes (Notes) in denominations of \$100,000 or more with maturities not to exceed 270 days from their respective issue dates. The maximum maturity date for the Series B Notes issued under the commercial paper program is January 1, 2018. As of June 30, 1988, LCRA had retired the outstanding balance of Series A and had \$31,625,000 of Series B Commercial Paper outstanding.

Under the Resolution authorizing issuance of the Notes, LCRA pledges to the payment of the Notes (i) the proceeds from the sale of bonds and other short-term obligations (as provided in the Resolution), (ii) commercial paper proceeds until expended, and (iii) the Net Revenues of the system, such pledge of Net Revenues being subordinate to the pledge thereof securing the payment of priority and junior lien revenue bonds.

LCRA has entered into revolving credit agreements with a group of banks which are obligated to lend LCRA aggregate amounts of up to \$150,000,000 and \$100,000,000 relating to Series A and B, respectively. There were no borrowings under these agreements through June 30, 1988. Under the agreements related to the \$150,000,000, which expired in April 1988, LCRA paid a fee of 1/4 of 1% per annum of the unused portion of the commitment and was obligated to pay interest on any borrowings. Under the agreements related to the \$100,000,000, LCRA pays a fee of 1/8 of 1% per annum

of the unused portion of the commitment and is obligated to pay interest on any borrowings. In addition, LCRA has agreed to maintain credit facilities with the banks which at all times would provide available borrowings sufficient to pay the principal of the Notes. As LCRA retires its commercial paper, the bank loan commitments are reduced accordingly.

Adjustable Rate Revenue Bonds: In July 1986, the Board of Directors of LCRA authorized the issuance of \$167,000,000 Adjustable Rate Revenue Bonds which were sold in August 1986. These bonds have been issued in a mode in which the interest rate changes weekly. Principal will be payable annually beginning January 1, 1992 through 2017. So long as these bonds remain in a short term mode, they may be

redeemed in whole or in part, at the option of LCRA, on any interest payment date at 100%.

The Bond Resolution authorizing the issue requires that the principal and interest payments be secured by an irrevocable direct-pay letter of credit. On October 23, 1987, LCRA entered into an agreement with a bank to provide an irrevocable letter of credit in the amount of \$181,500,000 replacing a prior letter of credit in the same amount. This agreement may be utilized to make payments for principal of \$167,000,000 and interest of up to \$14,500,000 on Adjustable Rate Revenue Bonds and will expire the earlier of December 1, 1991, or upon complete retirement of the Bonds (See Note 9), with extensions available for additional one-year periods from the expiration date. LCRA pays an annual rate of .45% on the

letter of credit amount for its availability as well as interest on any borrowings at the Bank Rate plus one and one-half percent per annum. As of June 30, 1988, LCRA had not borrowed funds under this agreement.

Reimbursement of Capital to U.S. Government: Under a 1948 contract with the U. S. Bureau of Reclamation, LCRA agreed to reimburse the United States government \$5,510,000, which was expended on the Mansfield dam, for facilities employed in the generation of electric power and energy. The amount is being repaid in equal annual installments of \$157,000 without interest. Payments are made on June 1 through the year 2019. The outstanding balance at June 30, 1988 was \$4,881,000.

5. Employee Benefits

Retirement Plan and Early Retirement Program:

A. Plan Description: LCRA contributes to the Lower Colorado River Authority Retirement Plan (Plan) which is a single-employer pension employees retirement system. The Retirement Benefits Committee (composed of LCRA employees and members of the Board of Directors) functions as an investment and administrative agent for the LCRA with respect to the Plan.

For the plan years ended March 31, 1988 and 1987, the LCRA's total payroll for all employees was \$57,763,000 and \$52,343,000, respectively, and the LCRA's total covered payroll is an annualized amount at February 1, of \$49,113,000 and \$43,840,000, respectively.

All employees aged 20 1/2 or more with at least 6 months of service who are working at least 1,000 hours per annum are covered by the Plan. Employees are not required to contribute to the Plan, although the Plan retains employee contributions and associated liabilities from years prior to April 1, 1984 when the Plan did require employee contributions.

Under the provisions of the Plan, retirement benefits begin to vest after five years of service on a

graded scale, with complete vesting after 15 years. The retirement benefit for each year of service is 1.75% of the highest 5 year average compensation plus 0.4% of that portion of the highest 5 year average compensation in excess of the social security covered compensation. Employees may retire with unreduced accrued benefits at age 65 with five years of participation, or when the total of age and service equals 92. The monthly benefit at retirement is payable in a ten year certain and life thereafter form of annuity, although other actuarially equivalent methods of payment may be elected with the approval of the Retirement Benefits Committee.

In May 1987, the Plan instituted an Incentive Retirement Program (IRP) which allowed participants who had attained age 50 and completed at least 20 years of service or who were already eligible for normal retirement to elect to retire between July 1, 1987 and August 31, 1987. The IRP provides increased retirement benefits reflecting a credit of 3 additional years of age and service in the basic retirement formula and a \$500 monthly supplement, payable to age 62. Approximately 125 employees were eligible for early retirement and 63%

participated. The actuarially determined cost of the IRP is being paid by LCRA in separately determined contributions reflecting a five year amortization of the increase to the unfunded actuarial liability resulting from the IRP.

B. Related Party Investments: The Plan held no securities of LCRA or other related parties during the year or as of the close of the fiscal year.

C. Funding Status and Progress: Presented on the next page is the total pension benefit obligation of the Plan. The amount of the total pension benefit obligation is based on a standardized measurement established by GASB No. 5 that, with some exceptions, must be used by this type of plan. The standardized measurement is the actuarial present value of credited projected benefits. This pension valuation method reflects the present value of estimated pension benefits that will be paid in future years as a result of employee services performed to date and is adjusted for the effects of projected salary increases. A standardized measure of the pension benefit obligation was adopted by the GASB to enable financial state-

ment users to (a) assess a plan's funding status on a going-concern basis, (b) assess progress made in accumulating sufficient assets to pay benefits when due, and (c) make comparisons among plans of this type.

Significant actuarial assumptions used to determine the standardized measure of the pension benefit obligation are summarized below:

- The present value of future pension payments was computed by using a discount rate of 8% which is equal to the estimated long-term rate of return on current and future investments of the Plan.
- Future pension payments were based on a 7% salary increase compounded annually and attributable to inflation, merit, promotion, and longevity.
- Future pension payments reflect no post-retirement benefit increases.

The standardized measure of the unfunded pension benefit obligation as of March 31, 1988, the Plan year end, is as shown in the table below.

<u>Pension Benefit Obligation</u>	<u>(Thousands of Dollars)</u>
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	\$ 8,404
Current employees:	
Accumulated employee contributions including allocated investment income	5,165
Employer - financed vested	12,816
Employer - financed non-vested	20,691
Total pension benefit obligation	\$ 47,076
Net assets available for benefits, at market	\$ 32,612
Unfunded pension benefit obligation	<u>\$ 14,464</u>

No changes in actuarial assumptions or benefit provisions that would significantly affect the valuation of the pension benefit obligation occurred during 1988. Similar information for 1987 is unavailable.

D. Contributions Required and Contributions Made: Periodic employer contributions to the Plan are determined on an actuarial basis using the entry age normal actuarial cost method. Normal cost is funded on a current basis. The unfunded actuarial accrued liability is funded over a 30-year period. Periodic contributions for both normal cost and the amortization of the unfunded actuarial accrued liability are based on the level percentage of payroll method.

Total contributions to the Plan for the 1988 and 1987 plan years amounted to \$5,004,000 and \$4,607,000, respectively. The contributions represent funding for normal cost of \$4,071,000 and \$2,828,000 and the amortization of the unfunded actuarial accrued liability of \$933,000 and \$1,779,000. These contributions represent 10.19% and 10.51%, respectively, of covered payroll.

The contributed amounts were based on an actuarial valuation as of April 1, 1987 and 1986, respectively.

The 1986 valuation used the entry age normal actuarial funding method with level dollar amortization of unfunded actuarial accrued liability applied to all plan benefits except pre-retirement death benefits which were funded through a one year term cost method. In addition, various actuarial assumptions were revised for the 1987 valuation.

Significant actuarial assumptions used to compute pension contribution requirements are the same as those used to determine the standardized measure of the pension benefit obligation.

The contributions necessary to fund the IRP were actuarially determined by calculating the change in the unfunded actuarial liability attributable to the implementation of the IRP and amortizing the increase in the unfunded actuarial liability with quarterly payments of \$343,000, including interest, over a 5 year period commencing June 30, 1987. IRP contributions for the plan year ended March 31, 1988 totalled \$961,000. Included as a liability in the balance sheet at June 30, 1988 is \$4,426,000 relating to the IRP, of which \$1,058,000 is included in Current Liabilities Payable from Revenue Fund.

E. Trend Information: Historical trend data for the plan year ended March 31, 1988 is presented below:

Net assets available for benefits as a percentage of the pension benefit obligation applicable to LCRA's employees 69.28%

Unfunded pension benefit obligation as a percentage of LCRA's annual covered payroll 27.72%

Similar information for 1987 and 1986 is unavailable.

The required supplemental information relating to the Plan's historical trend data is available in a separately issued report. This information enables financial statement users to assess the progress made in accumulating sufficient assets to pay pension benefits as they become due.

Savings Plan: The Lower Colorado River Authority Savings Plan (Plan) was established April 1, 1984, and qualifies for tax-exempt status under Section 401(k) of the Internal Revenue Code. The Plan is a defined contribution pension plan in which the benefits a participant will receive depend solely on the amount contributed to the participant's account and the returns earned on investments of those contributions.

Employees who are at least twenty and one-half years of age are eligible to participate in the Plan beginning on the April 1 following the completion of six months of service. Eligible employees who elect to participate in the Plan must contribute a minimum of 2% but not more than 10% of their compensation. LCRA provides matching con-

tributions equal to one-fourth of the first 4% of wages contributed by each participant. Contributions made by both the employee and employer vest immediately.

Contributions by LCRA and the employees for the years ended June 30, 1988 and 1987 are presented below.

	1988	1987
	(Thousands of Dollars)	
Employer contributions	\$ 306	\$ 295
Employees' contributions	\$1,516	\$1,457

No pension provision changes occurred during the year that affected the required contributions to be made by LCRA or its employees. The plan held no securities of LCRA

or other related parties during the year or as of the close of the fiscal year.

Deferred Compensation: LCRA also offers its employees a deferred compensation plan created in accordance with Internal Revenue Code Section 457. The plan, which is available to all LCRA employees, permits them to defer a portion of their salary until future years. The deferred compensation is not available to employees until termination, retirement, death, or unforeseeable emergency. The market value of the plan assets was \$750,000 and \$714,000 at June 30, 1988 and 1987, respectively. These amounts have been included on the balance sheet in contingency and other restricted funds and accounts payable from restricted funds.

6. Commitments

Construction: While FPP Unit 3 ("FPP3") went into commercial operation in April 1988, LCRA has remaining construction cash requirements relating to the project of \$14,700,000, to be expended in fiscal year 1989. FPP3 was designed as a lignite-fired generating unit. Presently, only about 10% of the fuel requirements are provided by lignite. The primary fuel is coal which is the least cost source of fuel. LCRA is continuing to evaluate lignite as a source of fuel for FPP3. Through June 30, 1988, LCRA incurred costs of \$194,933,000 (including approximately \$43,307,000 of interest during construction) in the development of a lignite mine. Additional cash requirements for Cummins Creek Mine of \$3,866,000 are budgeted in 1989. LCRA does not anticipate producing lignite from this resource before the early 1990's. In the interim, LCRA plans to maintain its leases and equipment subject to the outcome of the evaluation.

LCRA's construction budget also provides for general improvement projects with remaining cash requirements through FY 1993 of approximately \$212,566,000, including \$51,164,000 in 1989.

Fuel: LCRA and Austin have one long-term coal contract to supply fuel for FPP Units 1 and 2. This contract expires in 1995 and requires an annual purchase of approximately 1,800,000 tons. The 1,800,000 tons may be reduced by up to 10% and quantity may vary based on BTU quality. The contract provides for price escalation based on changes in certain price indices and various other factors. (See Note 9.) LCRA uses flexible spot coal bidding to meet the balance of coal requirements.

On July 21, 1988, LCRA and Austin executed a long-term rail transportation agreement with three railroad companies to ship western coal to FPP. The agreement also settles litigation with the Missouri-Kansas-Texas (MKT) railroad, one of the contracting parties. See Note 8.

LCRA has a contract with The Pittsburg & Midway Coal Mining Company to mine lignite at the Powell Bend Mine in Bastrop County, Texas. An estimated 200,000 tons of lignite is to be mined annually for the next four to five years. The total estimated contract price, including costs for reclamation and demobilization, is \$7,287,000 and is

subject to escalation.

LCRA has entered into two contracts for the supply of natural gas to the Sim Gideon Power Plant through January 1, 1990. A minimum of 50% of the plant's gas requirements are supplied under these contracts and up to 100% may be purchased. Quarterly prices from bids are used to select the remaining 50% when the firm supplier's quarterly price quote is not competitive.

On June 1, 1987, LCRA entered into three 3-year contracts expiring July 1, 1990, to supply the Ferguson Power Plant with natural gas. One of the contracts has no minimum quantity obligation and price varies with the supplier's average purchase cost. The other two contract prices are keyed to the spot market index and vary monthly. A minimum of 50% of the plant's requirements must be purchased under these two contracts. Remaining requirements can be purchased from the spot market.

On July 1, 1988, LCRA signed an agreement with Pelto Oil Company to explore for natural gas reserves in order to secure a long-term gas supply for LCRA's fuel mix. The three-year agreement which has an

effective date of April 1, 1988, may be terminated by LCRA on the first or second anniversary of this date or any point in time at which LCRA has expended or committed to expend minimum exploration costs of \$32,100,000. In addition to the expected expenditures for exploration

costs, which include prospect inventory, additional lease acquisition costs, geological and geophysical costs and the costs associated with drilling exploratory wells, LCRA will participate in development and production of proved reserves. At June 30, 1988, LCRA

had incurred capital costs of \$10,624,000, consisting primarily of prospect inventory; however, no payments were made until July, 1988. Production expenses at June 30, 1988, were \$73,000 with corresponding revenues of \$88,000.

7. Sale of Retail District

In June 1986, LCRA's Board of Directors authorized the sale of electric retail operations in Kerrville, San Marcos, and San Saba to those respective municipalities or other parties. San Marcos was sold in fiscal year 1987; Kerrville and San Saba were sold in the current year. Each of the sales were based on the original cost of the assets sold and resulted in a gain on the sale.

In December 1987, LCRA and the City of Kerrville consummated the sale of the Kerrville electric retail operations. Per the agreement, the assets were sold for \$19,143,000 to be paid in three annual installments of \$6,381,000 of which \$1,461,000

will be recorded as interest over the life of the note. The first installment was made at closing. The remaining payments will be made in December 1988 and December 1989. The sale resulted in a gain of \$3,189,000 of which \$1,639,000 is being deferred and amortized through December 1989.

In March 1988, the City of San Saba purchased the San Saba electric retail operations from LCRA for \$1,467,000. The City of San Saba paid \$489,000 at the time of purchase and will make the two remaining installments in March 1989 and March 1990. LCRA will record \$106,000 of the payments

received in 1989 and 1990 as interest on the note. A gain of \$402,000 was recognized on the sale, two-thirds of which is being deferred and amortized through March 1990.

Under the terms of the operating agreements, LCRA will continue to operate the utility for each municipality for at least five years or until such time as it is mutually agreeable for the municipality to assume responsibility for such. They have also entered into wholesale power supply agreements with LCRA under which each city will purchase substantially all of their power and energy from LCRA.

8. Litigation

Burlington Northern Railroad Company and Missouri-Kansas-Texas Railroad Company: In July 1987, the Burlington Northern Railroad Company (BN) and the Missouri-Kansas-Texas Railroad Company (MKT) filed suit against LCRA and Austin in the U. S. District Court for the Northern District of Texas (Fort Worth).

BN and MKT alleged in the suit that LCRA and Austin breached two contracts signed in 1975 and 1980 with BN and MKT concerning the rail transportation of coal (the Contracts), thereby allegedly causing damages aggregating \$584,000,000. LCRA and Austin

denied such allegations and counterclaimed against BN and MKT for more than \$60,000,000 in overcharges, plus interest, on the Contracts. In July 1988, LCRA and Austin approved a settlement agreement and 10-year coal transportation agreement with the Union Pacific Railroad Company ("UP") and Western Railroad Properties, Inc. The transportation agreement will provide LCRA with two payments totalling an estimated \$6.5 million by April 1989. These agreements, coupled with the August 1988 merger of the UP and MKT, left BN as the sole plaintiff in this litigation.

On November 1, 1988, BN, LCRA and Austin announced final settlement of the remaining Fort Worth contract litigation. Under the settlement, BN will pay LCRA and Austin a total of \$6 million on January 3, 1989. In exchange for this payment, LCRA/Austin and BN dismissed their respective lawsuits in the Fort Worth federal court. LCRA and Austin also agreed to dismiss BN and its parent, Burlington Northern, Inc., from LCRA/Austin's antitrust suit against various railroads scheduled for trial in the U. S. District Court for the Eastern District of Texas (Beaumont) in January 1989.

9. Subsequent Events

On November 30, 1988, LCRA issued \$104,727,000 Priority Refunding Revenue Bonds, Series 1988. The proceeds were used to refund \$100,000,000 aggregate principal

amount of outstanding Adjustable Rate Revenue Bonds, Series 1986A and Series 1986B. As a result of this refunding, the original amount of the letter of credit pledged as

security for the Adjustable Rate Revenue Bonds has been reduced accordingly.

Effective April 1, 1989, LCRA and Austin have extended their long-

term coal contract to supply FFP Units 1 and 2. The contract amendment provides for the purchase of approximately four million tons of coal annually until 1995 and 2.5 million tons from 1996 to 2001. The contract established new pricing

mechanisms resulting in a lower cost to LCRA and Austin.

On March 7, 1989, LCRA purchased interests in three natural gas wells and more than 5,000 acres of undeveloped leases in Fayette County, Texas, for approximately

\$17 million. Proven reserves of LCRA are about 17 billion cubic feet with potential increases via development drilling. This gas will be burned in the Sim Gideon and Ferguson plants.

Independent Auditors' Report

The Board of Directors
Lower Colorado River Authority

We have audited the accompanying balance sheets of the Lower Colorado River Authority (the "LCRA") as of June 30, 1988 and 1987, and the related statements of operations and sources of funds used for construction for the years then ended. These financial statements are the responsibility of the LCRA's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the LCRA as of June 30, 1988 and 1987, and the results of its operations and the sources of its funds used for construction for the years then ended in conformity with generally accepted accounting principles.

Deloitte Haskins & Sells

November 4, 1988, except for Note 9, as to which the date is April 1, 1989

1988 LCRA Board of Directors



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 Charles Patrick Oles, Jr., Vice Chairman
 James B. Garrison, Jr., Secretary

Board Members

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 Bank Chairman
 Kerrville
 Kerr County
 Appointed 1987

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 Union Representative
 Austin
 Travis County
 Appointed 1984

Ken Dixon
 Retired Engineer
 Sunrise Beach
 Llano County
 Appointed 1981

Charles Matus
 Businessman
 Johnson City
 Blanco County
 Appointed 1983

Jack B. Miller
 Attorney
 San Saba
 San Saba County
 Appointed 1985

Jack Littlejohn
 Retired Businessman
 Carmine
 Fayette County
 Appointed 1985

Lawrence Roy Bandy
 Oil Businessman
 Luling
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 Bastrop
 Bastrop County
 Appointed 1984

Patricia Wilson Scanlan
 Rancher
 La Grange
 Fayette County
 Appointed 1983

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 Austin
 Travis County
 Appointed 1987

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 Appointed 1987

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Rita Myatt Radley
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 El Campo
 Wharton County
 Appointed 1987

James Randall Grimes
 Attorney
 Georgetown
 Williamson County
 Appointed 1987

1988 LCRA Officers

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General Manager

Mark Rose
Deputy General Manager

Thomas G. Mason
Acting General Counsel

William P. Freeman
Executive Director
of Corporate Services and Chief Financial Officer

H. Dale Tucker
Executive Director of Electric Operations

William E. West, Jr.
Executive Director of Natural Resources

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