A STUDY OF THE SOCIAL AND ECONOMIC EFFECTS OF KEYSTONE RESERVOIR ON THE COMMUNITY OF MANNFORD, OKLAHOMA

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CHAPTER I

INTRODUCTION

A. General

Through the years engineers have endeavored to keep pace with the times and adapt to changing criteria in planning and designing new devices and facilities for our fast-changing society. New processes and materials are evolving rapidly, and while technology is advancing at an increasing rate, engineers have remained sensitive to these changes, optimizing their designs through the use of sound economic principles and engineering judgement.

In planning for water resources development, engineers have been concerned primarily with economics. Factors such as return on investment and benefit-to-cost ratio have become the most common yardsticks in measuring the efficiency of a water resources project (11). Recently engineers have begun to question the adequacy of this approach and recognize the importance of considering the sociologic and humanistic factors related to water resources development as well. The problem in water resources planning is now recognized as one of predicting the socio-economic impact of a development as well as estimating its pecuniary costs and benefits (9).

Too often engineers and economists in the planning organization tend to assume that the public cannot understand such problems or proposed solutions and that they know the best answer. On the contrary, the public should also be considered a partner in the decision-making process. Yet, today the public seldom participates in the planning of a project save through occasional public hearings. The interaction of planners and the public today is ordinarily limited to that of the administrators within the planning organizations and political and civic leaders of the benefited public. Because of the lack of complete interaction of planners and public and because of public apathy, important social or economic benefits may be underestimated, and the potential adverse social effects of a proposed project may go unnoticed until it is too late.

B. Justification of This Research

Except for secondary benefits derived from economic growth and development, most benefits from water resources projects accrue to people located away from the projects at the expense of the local people. A flood control reservoir benefits people downstream from the dam. Water supply and water quality control projects are often constructed for cities located downstream from the project. Recreation and fish and wildlife benefits derived from reservoirs accrue to users who may travel great distances to visit the project. But, what are the effects of such a project on

the people located in the immediate vicinity? Do the benefits received by others justify the inconveniences and hardships experienced by local residents? Does the local economic development and growth usually associated with a water-development project offset its adverse effects on the local people? Do attitudes of the local public toward a project change by the time it is completed and in operation?

Sound planning requires that these questions and many others be considered before a project can be justified. Past experiences provide the answers to some, but many remain unanswered because of lack of investigation. Although each project involves a variety of planning problems, this research is limited to a case study of a particular reservoir development. It is felt that research into the effects of such a development on the local people will serve to point out some of the considerations that must be included in the planning process to insure a completely satisfactory development.

C. Objectives

The objective of this study was to examine a community which has been directly affected by a multiple purpose reservoir project and attempt to answer the following questions from the results of the investigation:

1. Has the community experienced economic growth and development as a result of the construction of the project?

2. Has the overall welfare or well-being of people in the community improved due to the project?

3. Has the development affected the social structure of the community?

4. What adverse effects of the development on the local people, if any, could be avoided in the future, and how?

Answers to these questions will not provide a basis for future planning, but it is hoped that they will serve to emphasize the importance of considering and anticipating the social and economic effects of a reservoir project on the local people as well as the benefited public.

CHAPTER II

LITERATURE SURVEY

A. General

The effects of large reservoirs on local people has been the subject of research in the United States since the early 1940's. However, much of the research has been conducted by sociologists in a few scattered projects in economically depressed areas, and interest in the findings has generally been limited to public welfare agencies. Since the trend is toward more complete, comprehensive planning in water-development; since wise planning necessitates prediction of the social and economic impact of a project; and since predictions must be based largely on experience; the results of such research in the future will, no doubt, play an important roll in the planning process. Some of the findings of past research are discussed in the following paragraphs to show some of the common problems encountered.

B. Attitudes Toward Displacement

Since reservoirs are not always planned to benefit residents in the reservoir area, it is often difficult for these people to understand the purpose or need of such

development. Bailey (1) reported that the people in the Falcon Reservoir area of Zapata County, Texas found it difficult to understand the generosity of the United States in helping to relieve suffering in many parts of the world while, at the same time, it did not give similar compassionate consideration to a situation it created here at home. Wilkening and Gregory (27) found that the residents in the reservoir area of the Wappapello flood control project in Missouri expressed a generally passive attitude toward the project, but that "a large number of those in the area directly affected by the dam have expressed resentment, and, occasionally, hatred toward the building of the dam. They feel that even the Government has no right to come in and demand the sale of their farms for a purpose which will not benefit them in any way. This is particularly true of the older inhabitants of the basin."

C. Property Values and Replacement Costs

Although property owners usually receive fair prices for their property, they may also encounter costs and burdens which were not considered in the planning process. Displaced families must look for new homes, move their household goods and settle in new and sometimes strange surroundings. Families who relocate near the reservoir are often faced with buying a home in a seller's market. Kristjanson (10) reports that, when purchasing reservoir lands, the Tennessee Valley Authority emphasizes "equitable

treatment of the individual by recognizing the costs and hardships that fall upon the displaced," while the Corps of Engineers' policy is based only on the concept of fair market value, and it does not recognize that 'just compensation' required by the United States Constitution "may also be interpreted to allow owners to retain their same financial position before and after taking." Bailey (1) found that the greatest complaint of the people of Zapata County was "over the appraised value [of their property] in relationship to the cost of replacement at a new location." In the Wappapello Basin of Missouri 208 of 304 families affected by the project needed assistance from public agencies to accomplish the move from the reservoir area (27).

D. Effects of Relocation on Business

Although economic growth is usually associated with reservoir development, the displacement of farm families from a basin may seriously affect the patronage of businesses in nearby towns by altering their market areas. Similarly, the relocation of a town in a predominantly agricultural area may have adverse effects on businesses in the town. The merchants of Zapata, Texas and Greenville, Missouri expressed fear of these effects before their towns were relocated (1) (27).

E. Effects of Land Acquisition on Tax Revenues

Valuable land is often taken out of production through acquisition by federal agencies, resulting in loss of county tax revenues. Unless these losses are compensated, as in the case of the Tennessee Valley Authority's payments in lieu of taxes (7), counties may experience serious financial handicaps. Wilkening and Gregory (27) estimated the Wayne County tax levy loss would be 12 per cent as a result of the acquisition of 48,700 acres of Wappapello Basin lands by the Corps of Engineers.

F. Leadership in Relocating a Community

When a town is forced to relocate due to the construction of a reservoir project, one of the most important factors contributing to its success is dynamic leadership. Most landowners are not familiar with land acquisition procedures of water-development agencies and, likely as not, will find themselves in a state of bewilderment when they learn they must relocate. Water-development agencies usually provide only the minimum information necessary to carry out the land acquisition, and the people affected often find the ordeal frustrating and confusing. Effective leadership can help to unite the people of the community toward common objectives and insure efficient planning and development of the new town. The successful relocation of Hill, New Hampshire provides an excellent example of such

leadership and unification (4). On the other hand, Bailey (1) concluded that "a lack of dynamic leadership increased the difficulties in planning [the new town of Zapata, Texas]."

CHAPTER III

METHODS OF INVESTIGATION

A. Selection of the Study Area

The community of Mannford, Oklahoma was selected for study for a number of reasons. It provides an excellent opportunity for study because the community relocated due to construction of the Keystone Reservoir Project in 1962, and the early effects of the project are still fresh in the minds of the local people. The Mannford community also afforded an opportunity to study both rural and urban effects while limiting the study to a relatively small area. One of the most important reasons for selecting Mannford is that the entire city elected to relocate from the reservoir area as an entity and it provides an opportunity to study the social impact and problems involved in such a relocation.

B. Limits of the Study Area

The study area is located in Creek and Pawnee Counties, Oklahoma on the Cimarron River arm of Keystone Reservoir about five miles west of Keystone Dam. Mannford is a satelite city of Tulsa, Oklahoma which is located about 25 miles to the east. The study area includes the city of

Mannford and the portion of the surrounding rural area which is clearly associated with the city both socially and economically. Fringe areas which, through interviews with residents and consideration of the towns serving them, show ties with neighboring towns and cities, as well as Mannford, were excluded. The study area is delineated in Figure 1.

C. Methods of Investigation

Data pertaining to the relocation of the city of Mannford were obtained by a thorough search of the city's records and files of the Tulsa District Corps of Engineers. Supporting information was obtained through interviews with officials of the city and the Corps of Engineers.

Information and data relating to economic growth of the community were obtained from the records of city-owned and privately-owned utilities, the city post office, a survey of businesses and industries in the community and personal interviews with community businessmen.

Views of the public were recorded in personal interviews with a random sample from 165 old Mannford families who now reside in the study area. Questions asked the residents were taken directly from a prepared questionnaire, the format of which is presented in the Appendix. Answers, as well as notes of the conversations stimulated by the questions, were recorded on the questionnaires.

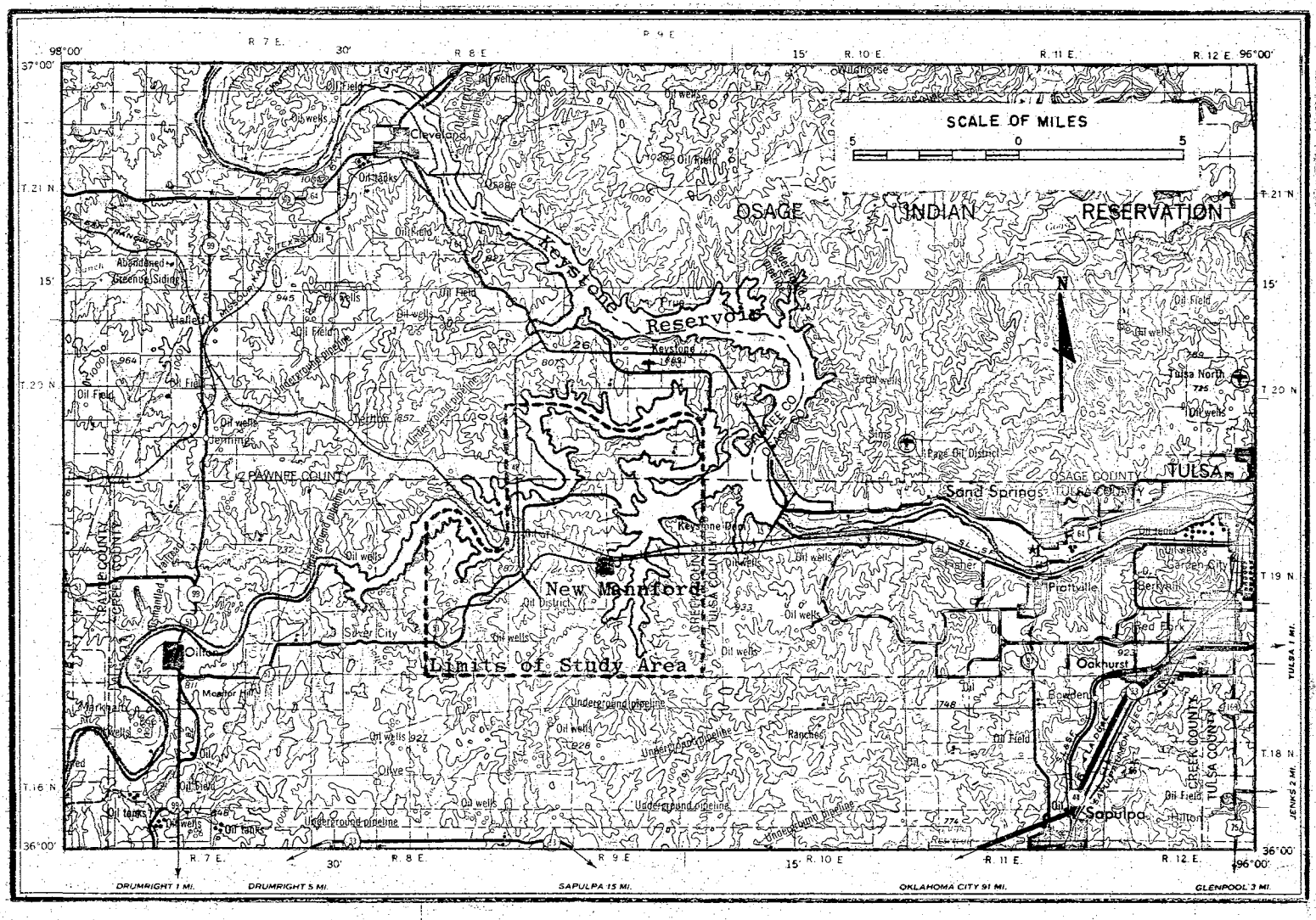

Figure 1. Keystone Reservoir and the Study Area.

CHAPTER IV

RESULTS

A. Social and Economic Development of Old Mannford

1. History of the Community

Old Mannford was settled in Indian Territory in the early 1900's near where travelers forded the Cimarron River. The town was located on land originally allotted to an Indian family named Mann, and the settlement came to be called Mann's Ford. Later the name was shortened to Mannford (20). The first businesses in the settlement included a general store, a hardware store, and a hotel. The town was officially founded before statehood in 1905 (3).

The town existed as an agricultural community until oil and gas fields began to develop in the area prior to 1920 (6), and economic development in the area reached a peak about 1930 due to oil and gas production. The area then experienced a decline during the depression years and did not begin to recover until initial construction of Keystone Dam and Reservoir began in 1956. The decline in the area's economy was evidenced by a reduction in the total population of Mannford and Cimarron Townships (the greater portion of the study area) from a peak of 2,576 in

1930 to 1,202 in 1960 (23)(24)(25).

Initial construction of the Keystone Project brought an influx of transient workers and their families into the Mannford area. By the time residents began relocating in 1962, the number of families in Mannford had increased from a low of 165 in 1958 to 221 (6).

2. Transportation Routes

Old Mannford was located on Oklahoma Highway 51 at its junction with Oklahoma Highway 48 which connected it with U. S. Highway 64 on the north side of the Cimarron River. These highways provided access to all towns in the area; however, except for Highway 48, they were old and in poor condition prior to their relocation due to construction of Keystone Reservoir. Some of the families interviewed indicated that they were discouraged from making more shopping trips to other towns because of the poor roads. The town was also served by the St. Louis-San Francisco Railroad which played a significant roll in the area's earlier economic development. However, the railroad was of less importance to Mannford just prior to its relocation.

3. Property Values

Until construction of the reservoir project began and Mannford was forced to relocate, the town was typical of many small, old towns in the state. It was characterized by old and vacant buildings, a limited number of new

buildings and improvements and a generally run-down appearance. The town's lack of a master plan, building code, or rigid restrictions led to its haphazard development.

Table I shows a summary of the Corps of Engineers' gross real estate appraisal of the school and privately-owned properties within the corporate limits of the old town (5). The table indicates that the average value of residential property in old Mannford was approximately $4,920 per residence and that the average value of commercial property was $5,550 per establishment excluding mineral values.

Some old Mannford improvements are illustrated in Figures 2 through 7.

TABLE I

GROSS REAL ESTATE APPRAISAL

School and Privately-Owned Property
Mannford, Oklahoma 1958 (5)

Item	Value
Commercial Subdivisional Land (6.5 acres)	$ 19,075
Commercial Buildings (33 sets)	164,000
Residential Subdivisional Land (96 acres)	157,200
Residential Dwellings (165 sets)	655,000
Churches (6)	56,000
School (1)	125,000
Mineral Value (Subordinated)	104,500
TOTAL ESTIMATED VALUE	$1,280,775

4. City-Owned Facilities

In 1958 the city water superintendent estimated that 600 people were served by the city water system which consisted of two main supply wells, four auxiliary wells, a 50,000 gallon elevated storage tank and distribution mains. The dependable yield of the system was 70 gallons per minute (6), but users often complained of water shortages in summer.

Natural gas was both purchased and leased from private interests by the city and distributed through city-owned facilities. In winter many residents complained of inadequate gas pressure.

Old Mannford residents relied on septic tanks and trash burning for waste disposal, as the town had no sanitary sewers or refuse collection service.

Municipal streets consisted of a portland cement concrete pavement on Oklahoma Highway 51 which ran entirely through the town and some gravel-surfaced, asphalt-surfaced and oil mat-surfaced streets. There were also some graded dirt streets in the residential areas.

Municipally-owned buildings in old Mannford included the community building and adjacent fire station. The community building, constructed of native sandstone in 1909, had rooms for general meetings, a kitchen for use during social functions and an unfinished basement used for a jail. The community building was in poor condition; however, the adjacent wood frame fire station, constructed in 1952, was in good condition prior to the relocation (6).

Figure 2. Commercial development along Oklahoma Highway 51 in old Mannford.

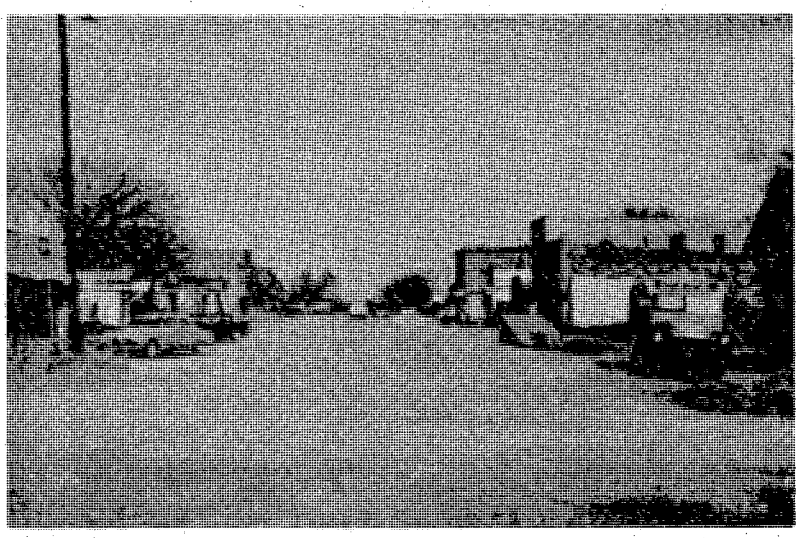

Figure 3. Main Street in old Mannford.

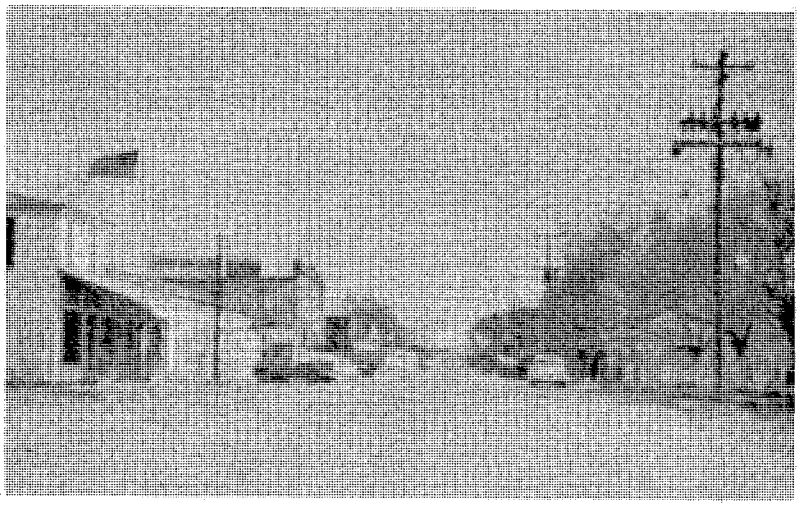

Figure 4. Old Mannford Post Office (left foreground) and other businesses.

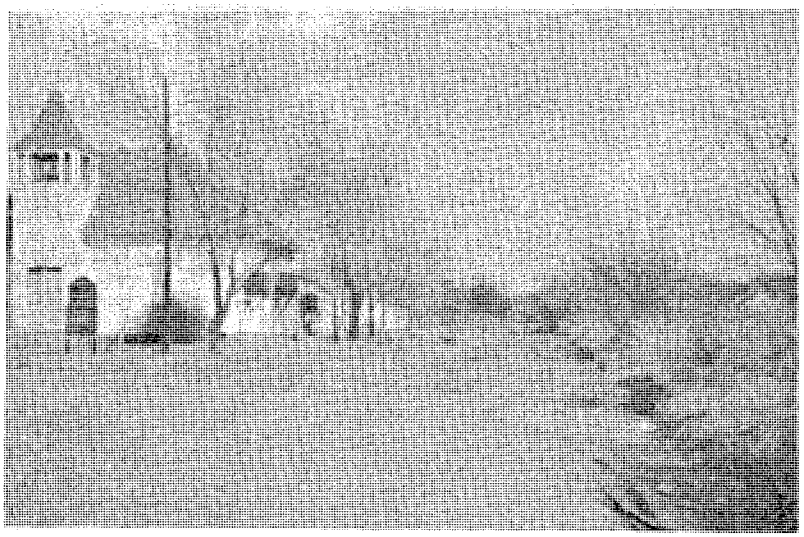

Figure 5. An old Mannford church and residential street.

Figure 6. Residences in old Mannford.

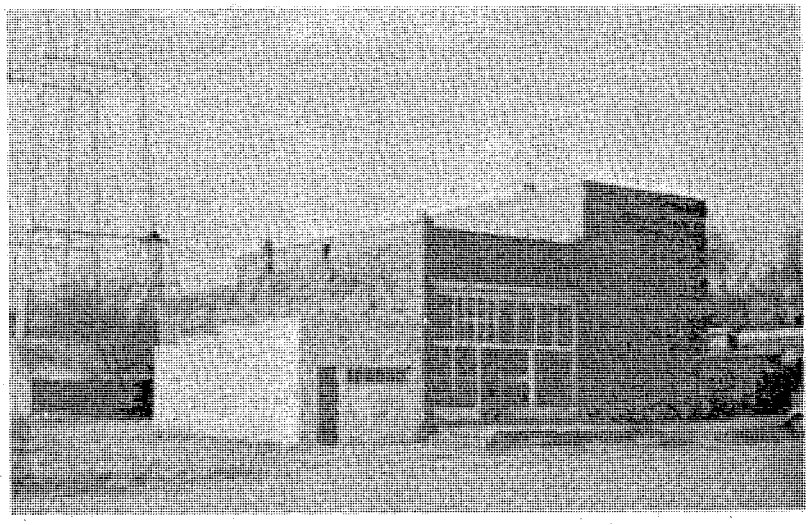

Figure 7. Old Mannford Fire Station (left) and Municipal Building.

Fire protection was considered inadequate by most residents as the town's volunteer fire department had only a single small truck. Inadequate equipment combined with the limited city water supply resulted in excessive fire insurance rates. The town was rated in the tenth class of the standard rating schedule of the National Board of Fire Underwriters (2).

A summary of unexpired life and present worth of city-owned facilities in 1959 is presented in Table II.

5. Business and Industry

In 1962, prior to the relocation of Mannford, a minimum of shopping facilities was available in the community as indicated in Table VI. These facilities were adequate for day-to-day household needs, but for a wider selection of goods and services, residents were dependent on other cities and towns. The families interviewed shopped in other cities an average of two to three times per month.

Prior to Mannford's relocation employment opportunities in the area were limited to those in the oil fields and business establishments in the town. Nearly 40 per cent of the workers in the sample worked in other cities before 1962 when the town began relocating.

TABLE II

UNEXPIRED LIFE AND PRESENT WORTH OF EXISTING TOWN-OWNED FACILITIES IN 1959 (6)

Item	Estimated Life Years	Year Installed	Unexpired Life Years	* Replacement Cost in $	Present Worth in $
Water System					
Pipe, C. I.	50	1928	19	35,590	13,520
Pipe, galvanized	20	1944	5	1,810	450
Hydrants	50	1928	19	1,440	540
Valves & boxes	40	1928	9	870	190
Res. meters & boxes	20	1944	5	6,690	1,680
Taps & services	20	1944	5	8,360	2,090
Elevated tank	50	1928	19	24,600	9,350
Supply line to town	40	1956	37	4,370	4,040
Wells with pump stations:					
In alluvium	20	1956	17	12,070	10,260
In town	25	1942	8	6,600	2,110
Subtotal, water system				102,400	44,230
Gas System					
Pipe steel	40	1924	5	40,570	5,070
Residential meters	20	1944	5	5,080	1,270
Taps & services	20	1944	5	9,240	2,310
Regulators	20	1956	17	1,200	1,020
Subtotal, gas system				56,090	9,670
Buildings					
Community	55	1909	5	20,000	1,820
Fire Station	30	1952	23	4,800	3,680
Subtotal, buildings				24,800	5,500
Streets					
Portland cement pavement	40	1924	5	21,280	2,660
Rock surfacing	5	1955	1	5,190	1,040
Asphalt surfacing	5	1956	2	14,370	5,750
Oil mat surfacing	3	1956	0	310	------
Grading	40	1939	20	8,740	4,370
Subtotal, streets				49,890	13,820
Sidewalks					
Concrete	25	1915	0	7,330	0
Brick	25	1915	0	390	0
Subtotal, sidewalks				7,720	0
Curb & gutter	25	1915	0	540	0
Header curb	25	1915	0	1,160	0
Street markers	15	1956	12	360	290
Traffic blinker signals	25	1954	20	560	450
TOTALS				243,520	73,960

*Cost for replacement using new materials.

6. School

In 1962, prior to the relocation, there were 360 students enrolled in the Mannford School (16). The school building was old, in poor condition, and badly overcrowded. All of the families interviewed who had school age children indicated that the teaching staff was adequate but the school facilities were poor.

7. Public Recreation Facilities

Park and recreation facilities were non-existent in the old town except those provided by the school. Residents who participated in outdoor recreation such as picnicing, swimming, and fishing, visited Heyburn Lake near Sapulpa, Oklahoma and Mowhawk Park in Tulsa, Oklahoma.

8. Social Characteristics

Probably the most significant social bond contributing to the solidarity of the old Mannford community was kinship. A statistical analysis of the results of interviews with a random sample of the relocated old Mannford families indicates that 72 to 97 per cent of the families had relatives living in the old community. Many of the younger residents chose to remain in the area after marriage, and the social order exhibited an interwoven pattern of kinship among families.

Another important factor in the community's social structure closely related to kinship was the preponderance of families having long association with the community. In approximately 77 per cent of the families interviewed, at least one member had lived in the old Mannford area for 20 or more years. Average tenure of the adults interviewed was 26 years. The average tenure of residence in old Mannford of heads of households in the sample was 33 years. Statistical analysis indicates that the average tenure of all old Mannford heads of households was 26 to 40 years.

The average age of all family members in the sample in 1962 was 30, and the average age of family heads was 50. In 1957 the Institute of Community Development of the University of Oklahoma Research Institute interviewed 154 families in the study area and found the median age of family heads to be 50 to 54 (22).

Eighty-five per cent of the sample families indicated membership in social and civic organizations in the old town including Veterans of Foreign Wars, Lions Club, Masonic Lodge, Home Demonstration Club, Federated Club, Sportsmen's Club, Roundup Club and other church and school organizations.

Interpersonal relations in the all white old Mannford community (22) could be described as intimate. Nearly every family interviewed used the words "friendly" or "like

a family" in describing the old town, and 65 per cent indicated close social bonds as the main advantage of living in the community. Most of the families were well acquainted with other families in the community and many residents went to town on Saturdays simply to visit with others on the streets. The solidarity of the community and the civic interest of the people were evidenced in 1958 when 300 families voted to relocate the entire town rather than disperse or build another town with another name, and again in 1959 when 93 per cent of the qualified voters in old Mannford went to the polls and 100 per cent of them voted in favor of the new townsite (20).

Although the substandard conditions which existed in old Mannford suggest a lack of civic interest, on the part of its citizens, it should be noted that, while many residents complained of some of the town's facilities, there was a preponderance of low income families living in the town. In 1957 nearly 75 per cent of the families in the Mannford area had annual incomes of $5,000 or less and one-third had incomes of $2,500 or less (22). Consequently, the author has concluded that they tolerated some of the inconveniences to avoid higher taxes.

B. Relocation of the Mannford Community

1. The Keystone Reservoir Project

Congress, in the River and Harbor Act of 1950, authorized the Keystone Reservoir Project for construction by the Corps of Engineers for flood control, hydroelectric power, navigation and related purposes. It is a key unit in the comprehensive plan of development for the Arkansas River Basin's water resources (3). Construction of the Keystone Project began in 1956 and was completed in 1964 at a cost of $123 million. The benefit-to-cost ratio of the project is included in the Arkansas River Navigation Project's benefit-to-cost ratio of 1.5:1.

Keystone dam is located on the Arkansas River in Tulsa County, Oklahoma about two miles downstream from the mouth of the Cimarron River. The reservoir lies mainly in Osage and Pawnee Counties with portions in Creek, Payne, and Tulsa Counties.

At the top of power pool the reservoir inundates an area of 26,300 acres and has 300 miles of shoreline. The landscape along its shores varies from rocky, wooded hills to rolling, grassy meadows and provides a scenic attraction for visitors. The lake and surrounding marginal lands provide opportunities for hunting, fishing, camping, boating, swimming, and picnicing. There are 17 public parks and recreation areas serving the reservoir area. The Corps of Engineers estimated that the lake had 1.8 million

visitors in 1968. Access to all parts of the lake is provided through a well developed system of federal and state highways and county and park roads. There are approximately 70 residential subdivisions scattered throughout the lake vicinity with approximately 50 developed for lakeside residences (14).

2. Acquisition of Reservoir Lands

Acquisition of reservoir lands in the study area was accomplished under Corps of Engineers criteria (5) which provided for the acquisition in fee of all lands within a blocked perimeter encompassing the elevation 754.0 contour (five-year frequency flood pool). In addition, flowage easements were purchased on lands outside the blocked perimeter and lying below the fifty-year frequency flood pool at elevation 759.0. Before the town of Mannford elected to relocate as an entity the proposed guide contour for flowage easements in the corporate limits of the town was raised to elevation 760.0 as a safety factor. Although the guide contour did not encompass the entire town, the Corps of Engineers was obligated to purchase all of the property within the corporate limits when the town decided to relocate (6).

Corps of Engineers policy provided for payment of just compensation for all land and easements purchased. Their interpretation of "just compensation" was the "reasonable market value" as determined by staff

appaisers (7). After the owner's land and improvements were purchased he was permitted to buy back the buildings and other improvements at their salvage values and move them to a new location. In addition, landowners were allowed to lease marginal lands, which they had previously owned, for agricultural use.

According to the sample, about one-half of the displaced families were unsatisfied with the government's appraisal of their property. Those living in town who objected, complained that they could not replace their property for the same amount they were paid. Approximately 13 families moved out of the study area (22)--some because they felt they could not afford to buy or rent homes in the study area or move their old homes. Some businessmen complained that their commercial buildings, which were adequate in the old town, could not be moved and that new buildings of the same size would cost several times the amount they were paid for the old buildings. One respondent dissolved his business for that reason. In the rural areas some landowners disagreed with the government's appraisal of their land. Some went to court for adjustments, but the general feeling was that any increase in payment was not worth the legal problems involved.

One woman queried said that her family "had planned for years to build a new home on a beautiful site located on their farm." The Corps of Engineers purchased the land for a public use area, and the family had to move to a

less suitable site. Another family complained that they had worked five years "homesteading" their acreage. When the government purchased it they "had to start all over." Some families who lingered in the area after their property was purchased found the cost of other land in the area higher than they would have had they moved sooner.

3. The Decision to Relocate the Town

Since nearly all of the town would be inundated by the reservoir, Mannford residents were faced with two alternatives. Those living in the town on land below the acquisition contour could move to other locations leaving a few families behind who lived on higher ground, or the entire town could relocate in a new place. The first alternative was chosen by three other towns in the reservoir area. Two of these communities have since built new towns, and many of the residents from the third have resettled in a rural area near the site of their old town. The second alternative was provided through the government's legal obligation to relocate or replace Mannford's city-owned facilities under authority of Public Law 516 and Section III of Public Law 85-500 (River and Harbor Act of 1958) (6).

The people of Mannford chose the second alternative. Approximately 300 families in Mannford and the surrounding area elected to stay together and relocate the town. Through the influence of an active Lions Club, they envisaged a new town with all new facilities and

conveniences which the old town lacked. They foresaw the revival of the community's economy in a recreation-oriented environment enhanced by the reservoir's recreational opportunities.

4. Planning New Mannford

In 1957 Mannford residents began to plan the new town. The Institute of Community Development of the University of Oklahoma Research Institute was given a contract to study the problem of relocating, recommend a new location and prepare plans for developing the new townsite. The contract was financed under a federal grant in which the federal government paid two-thirds of the cost and one-third was paid by the Mannford Lions Club.

Through interviews with local residents the Institute was able to determine the overall desires of the community toward relocating the town. Out of 164 families interviewed by the Institute in the old Mannford area, 118 indicated a preference for living in the new town wherever it might be located. Eleven stated they wanted to remain in the general area and 15 planned to leave the area. Twenty were undecided.

The new town was planned with a view toward providing homes for the displaced families in the Mannford area while also providing for anticipated future expansion due to the large number of families from the Tulsa Metropolitan Area who would be interested in acquiring homes in a properly

designed new town having good access to lake recreational facilities (22). In addition, old Mannford residents expressed a desire for facilities such as concrete streets and sanitary sewers which did not exist in the old town.

The site of the new town, located about two miles southeast of the old town, was selected for its proximity to the Tulsa Metropolitan Area and the Keystone Reservoir, its geographical location with respect to excellent transportation routes and the Salt Creek arm of the reservoir, and its rolling, easily developed topography (22). Although some objections to the recommended site could have been raised by the local people, it had been decided earlier that, since the town was paying for the Institute's advice, they would accept its recommendation and follow its plan of development precisely (2).

When fully developed (in 20 to 30 years) the new site would provide for a community of 20,000 people; however, it was planned for development in stages. The plan would provide for the development of three residential neighborhoods of about one square mile each. Industrial areas would be developed along the highway and railroad to provide convenient access to those transportation facilities. These areas would be located well away from the residential areas to avoid any undesirable effects such as smoke, odors, and noise. The commercial district would be located at the traffic focal point where the three neighborhoods all came together. The new town would have a municipal building and

fire station, concrete-paved streets, a water system which would meet present and future needs, an adequate natural gas system and a much-needed sanitary sewer system. Other utilities would be provided by private companies.

5. Government Participation

As a result of a petition by Mannford residents the town, in October, 1959, officially requested the assistance of the federal government in relocating the city-owned facilities (6). The River and Harbor Act of 1958 provided for the relocation of the facilities or payment of a lump sum representing the estimated reasonable cost of replacement. Since the plan of the new town called for development of city-owned facilities superior to those in the old town, the Town Board of Trustees negotiated a lump sum payment for the old facilities, and the additional costs of development were born by the local residents. To provide a basis for estimating the reasonable cost of replacement, the Corps of Engineers had to prepare estimates based on hypothetical plans of development at the new townsite equivalent to those in the old town.

Replacement of the city's water supply posed a special problem. Oil and gas wells in the area of the new townsite were regarded as a source of pollution which would threaten the development of a water well system in the area. For that reason the town was paid a lump sum of approximately $300,000 to develop a surface water supply which would meet

the immediate and future needs of the community. This amount was approximately $187,000 greater than the estimated replacement cost based on development of a well system (6). The surface water supply with a capacity of 2,000 acre-feet was finally developed on Little Salt Creek, a tributary of the Cimarron River, near the new townsite.

As previously discussed, the costs of betterments over the lump sum payment by the Federal Government were born by the local people through the purchase of lots in the new townsite. A comparison of the estimated costs of the town's plan of development with the estimated federal replacement costs is presented in Table III. These costs were estimated by the Corps of Engineers prior to the relocation and do not represent the actual final costs incurred. The final lump sum payment agreed to and accepted by the Mannford Town Board of Trustees was $687,085.94 (6). A comparison of Table II with the final lump sum payment shows that the town received $613,126 over the 1959 present worth of the city's facilities.

6. Relocating the Town

Early in the planning stages of the relocation, the Board of Trustees of Mannford appointed an executive administrator to devote full time to the countless administrative tasks which would be involved. It was partly through his efforts, acting as liaison between the city government, local groups, and the federal government, that

TABLE III

COMPARISON OF ESTIMATED COSTS

Replacement of City-Owned Facilities and Town's Proposed Plan of Development (6)

Item	Replacement or Relocation Costs	Cost of Town's Proposed Plan
Water system including supply	$394,782	$ 422,605
Gas system including supply	131,063	159,052
Buildings	27,200	27,200
Streets	62,914	455,465
Miscellaneous items	10,357	89,885
SUBTOTAL	626,316	1,154,207
Town's Engineering, Design, Supervision and Administration	40,561	---
SUBTOTAL, DIRECT COSTS	666,877	1,154,207
Town's Engineering, Design, Supervision and Administration	---	40,561
Contingencies	80,025	143,372
TOTAL, DIRECT COSTS PLUS CONTINGENCIES	746,902	1,338,140
Net Mineral Subordination Damage to Town-Owned Gas Leases	12,323	---
Net Salvage	-4,467	---
TOTAL COST	$754,758	$1,338,140

the town was able to affect an orderly relocation.

To assist the Governing Board of the town in relocating the community the New Mannford Corporation was organized in 1957 under the laws of the State of Oklahoma. The sole purpose of the corporation was to do those things and act where the municipal government was powerless to act. The corporation obtained working capital from the sale of $20,000 in stocks to local people. Its most important functions were the purchase of the new townsite recommended by the Institute of Community Development, the development of the townsite and the sale of lots in the new townsite (3).

The relocation of the city was a new experience for the state. It required the passage of a special bill by the state legislature before the town could annex the new townsite. House Bill 663, passed in 1959, provided for the annexation of the new townsite only after approval of the townspeople through a special election (8). In addition, Senate Bill 412 was passed by the state legislature in 1961 authorizing the city to grant the Federal Government the right to inundate the streets in the old town (7).

The New Mannford townsite was approved in a special election June 23, 1959. It is interesting to note that not one dissenting vote was cast in the election. On the day after the election the first addition of the new townsite containing 110 acres, was annexed to the city.

With the approval of the new townsite, the New Mannford Corporation proceeded to purchase the land, subdivide

it based on the plans prepared by the Institute of Community Development and sell lots to old Mannford residents. At a town meeting held two weeks before the sale of the lots, each family in the old town was furnished a plat of the new townsite showing the purchase price of each lot. When the sale was held, all of those families desiring to relocate in new Mannford had bought lots within the first two hours of the sale. The price of the lots varied from $700 to $1,150 depending on size. However, six lots were given away to residents who could not afford the cost. Buyers were charged only for the cost of the land and development over and above that provided by the government (6). After the lots in the first addition were sold, the New Mannford Corporation awarded contracts for the construction of streets, water lines, and sewers which were designed by a private engineering firm. These facilities were complete and ready for use in 1962 when families began moving to the new town (3).

In 1962, to insure against blight in the new town, and to provide for orderly development and strict adherence to the ultimate plan of development, the Town Board of Trustees adopted a municipal code setting forth rules and regulations governing building construction and plumbing and electrical work as well as subdivision and zoning (21).

In 1962 all of the 112 lots in the first addition to the new townsite had been sold and residents began moving to the town (3). By 1963 all of those planning to relocate

in the new town had done so. Approximately one-half of the homes in the new townsite were moved there from the old town, and the others were new. Most of the displaced rural families in the old community relocated in the rural area around the new town. It is estimated that 200 families relocated in the new community. In addition to the school and residences, six churches and approximately 34 business establishments relocated in the new town (6). As new families continued to move to new Mannford, other residential areas were developed by the New Mannford Corporation and annexed into the city.

Electric service was provided in the new town through facilities constructed by the Public Service Company of Oklahoma. However, soon after the relocation was completed, the town purchased the distribution facilities. The sale of power purchased from Public Service Company now provides a source of revenue for the municipality.

Natural gas is purchased by the city from Cities Service Oil Company and is obtained from a gas pipe line located about six miles northwest of the city. Along with the distribution system installed by the city, this utility also provides a source of revenue for the new town.

As previously discussed, the cost of providing a water distribution system over and above that allowed in the lump sum payment by the Corps of Engineers and the cost of providing sanitary sewers in the new town were included in the prices of the lots sold by the New Mannford Corporation.

However, the water treatment and sewage treatment facilities in the new town were financed through the sale of municipal bonds.

C. New Mannford Today

1. Transportation Routes

New Mannford is located on Oklahoma Highway 51 about two and one-half miles east of its junction with Highway 48. Highway 48 connects with U. S. Highway 64 about seven miles north of new Mannford. The relocation of these highways, as well as many county roads, during construction of Keystone Reservoir has provided the study area with excellent transportation routes. The distances to surrounding towns can now be driven in a few minutes. The relocated St. Louis-San Francisco Railroad passes through the industrial section of new Mannford connecting it with Tulsa to the east and Pawnee, Perry, and Enid to the west. A map of the new Mannford area is shown in Figure 8.

2. Population Growth

A search of city utility records and information gathered from the local post office showed that there are 406 individual residences in the city and 315 in the surrounding rural area making a total of 721 in the study area. Multiplying the number of residences in the city by 3.08, the average number of persons per household in

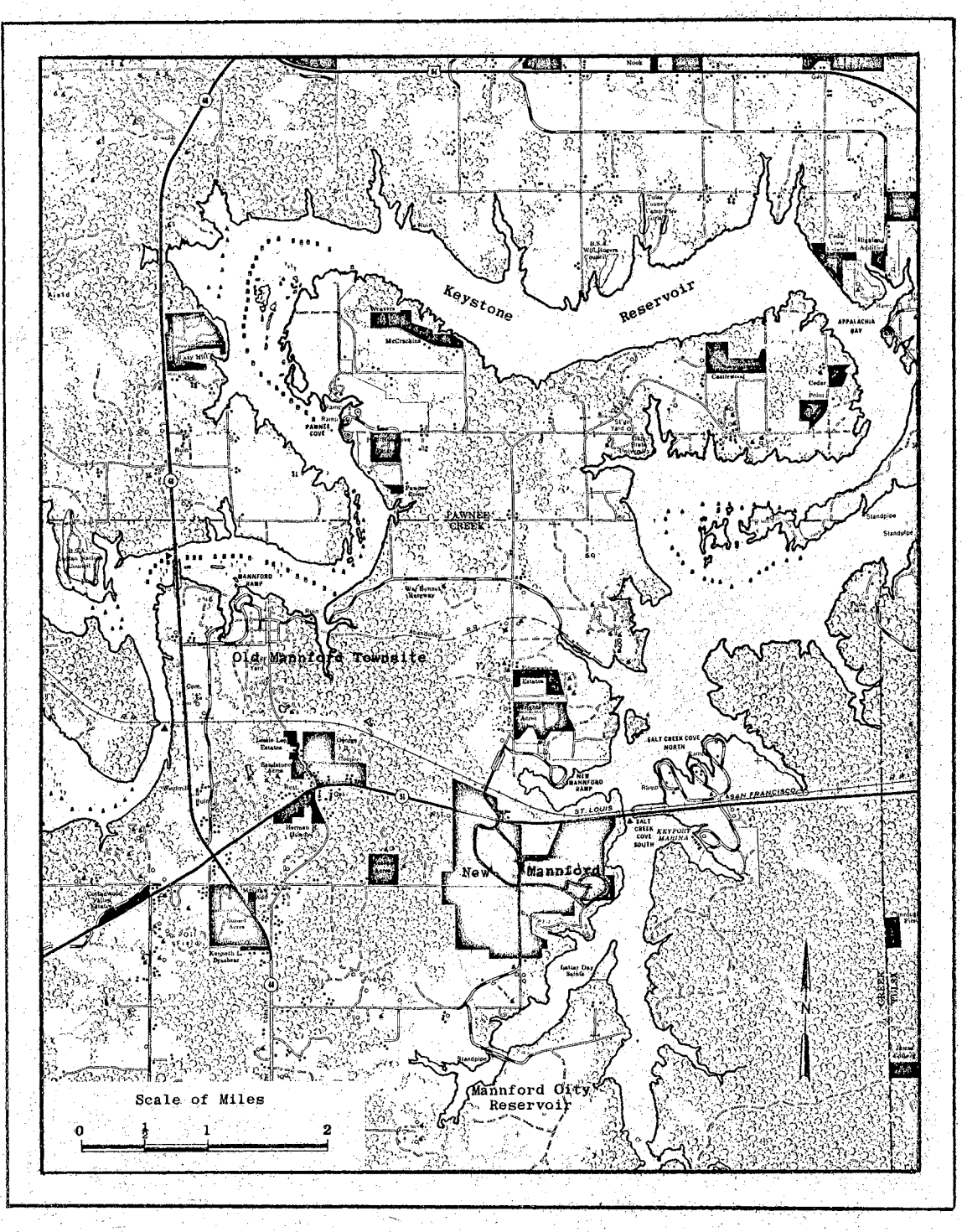

Figure 8. Map of the new Mannford community.

Creek County, Oklahoma in 1960 (25), yields a conservative population estimate of 1,250 for new Mannford in 1969. The rural population of the study area was estimated in a similar manner to be 970 making the total for the study area 2,220. For comparison, these figures are shown in Table IV with past census records. Although no census data are available for population after 1960, enrollment records of the Mannford schools provide an indication of population growth in the last ten years (16). This data is presented in Table V. Referring to the table, it is noteworthy that the decrease in enrollment from 1963 to 1965 was due to the out-migration of families of construction workers as work on the Keystone Project was completed.

3. Employment

The number of full-time workers in the study area was estimated by applying the 1960 non-worker-to-worker ratio for Creek county (1.95)(25) to the estimated population of the study area. This method yielded 750 workers (including self-employed workers) as compared with 410 in 1960. A business-to-business survey showed that there are about 385 full-time, non-farm jobs in the study area filled by workers from the new Mannford community. An additional 90 full-time jobs are filled by workers living outside the study area. There are approximately 60 part-time jobs, excluding domestic help, filled by new Mannford residents. A comparison of the number of workers in the study area with the number of jobs

TABLE IV

POPULATION OF STUDY AREA
BY YEARS (23)(24)(25)

Year	Mannford Township	Cimarron Township	Total	Mannford Town
1907	976	1,282	2,258	
1910	1,257	1,295	2,552	
1920	1,324	1,000	2,324	
1930	1,533	1,043	2,576	421
1940	1,393	758	2,151	403
1950	881	602	1,483	426
1960	733	469	1,202	358
1969	2,020*	200*	2,220*	1,250*

*Estimated

TABLE V

TOTAL ENROLLMENT OF MANNFORD PUBLIC SCHOOLS (16)

School Year	Enrollment	Per cent Increase
1959-60	328*	---
1960-61	336*	2.4
1961-62	360	7.1
1962-63**	374	3.9
1963-64	378	1.1
1964-65	364	-3.7
1965-66	414	13.7
1966-67	483	16.7
1967-68	555	14.9
1968-69	596	7.4

* Estimated from average daily attendance records.

**New school occupied at the beginning of the 1962-63 school year.

filled by Mannfordites shows that approximately 365 persons or 49 per cent of the workers living in the study area are employed either outside the community or on local farms. There are only five full-time farms in the study area; therefore, it is concluded that about 48 per cent of these workers work outside the community. The sample results support this estimate in that 42 per cent of the workers interviewed work outside the study area--mainly in the Tulsa area. About 40 per cent, or 160, of the workers in the old Mannford community work elsewhere.

4. Business and Industry

Although the number of business establishments has increased significantly since the relocation as shown in Table VI, most of the new business is associated with real estate development, recreation and tourism. The demand for property and homes in the lake area has afforded business opportunities in construction, real estate, insurance and financing while tourists and recreation seekers have increased the demand for eating and drinking places, bait and fishing tackle, boat storage and recreation facilities. A few new retail stores and services have been established in the new town as a result of the increase in population, but they do not appear to have changed the shopping habits of the local residents. The families interviewed continue, as before, to shop in other towns an average of two to three times per month. The only businesses which experienced a

TABLE VI

A COMPARISON OF THE NUMBER OF BUSINESSES AND INDUSTRIES IN MANNFORD IN 1962 AND 1969

Kind of Business	Number of Establishments 1962	1969
Retail Establishments		
Appliances, plumbing and electric supplies	1	1
Automotive parts and supplies	1	2
Bait and fishing tackle	-	5
Boats and accessories	-	3
Building materials and hardware	1	1
Clothing and apparel	-	2
Drugs and sundries	1	1
Eating and drinking places	4	7
Feed and grain	-	1
Flowers and gifts	-	2
Gasoline service stations	3	6
Grocers	5	5
Service Establishments		
Automotive repairs	2	4
Banking and financing	1	2
Barber and beauty shops	4	5
Boat storage	-	3
Drilling and oil field services	7	6
Hotels and motels	1	1
Insurance	1	3
Laundry and dry cleaning	2	2
Printing and publishing	1	2
Recreation	-	4
Welding	2	3
Miscellaneous services	4	7
Building, plumbing, electrical and other contractors	5*	9
Oil and gas production	3	2
Real estate	1	5
Manufacturing	-	3**

* Includes general contractors.

**Includes one manufacturing establishment presently under construction.

decrease in number were drilling and oil field services and oil and gas production. Some views of new Mannford's commercial developments are shown in Figures 9 and 10.

There are two manufacturing firms operating in the new town at the present time. The larger firm employs 83 workers in the manufacture of automobiles, 48 of which live outside the study area. All of the materials for use in production are imported from outside the study area. The second firm employs only six workers in manufacturing machined parts. A third manufacturing firm which is presently under construction will employ 60 people from the study area in producing plastic goods.

5. Residential Areas

The residential area in the new town was planned with long, curving streets which discourage through traffic and provide an air of individuality from lot to lot. Lots are generally well kept and show a great deal of pride on the part of the residents. Houses which were moved in from the old town have been rehabilitated to meet the restrictions adopted in the municipal code and, in most cases, are well adapted to the new residential area. Most of these houses are concentrated in the first residential area developed; however, there are several scattered throughout the study area and it is not uncommon to see a small, old house next door to a large new one. Some residential improvements are shown in Figures 11 and 14 through 16.

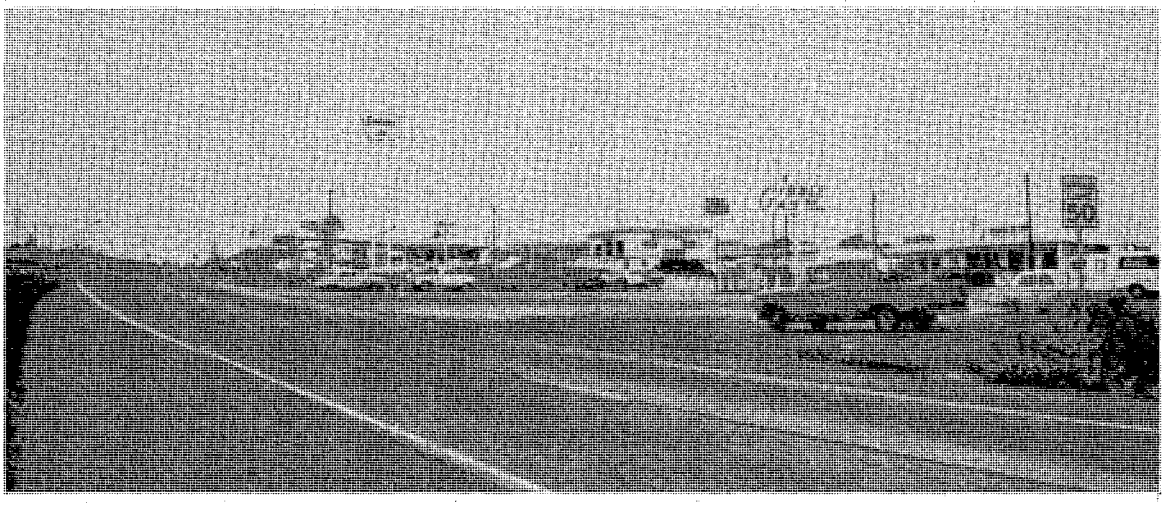

Figure 9. Commercial development along relocated Oklahoma Highway 51 in new Mannford.

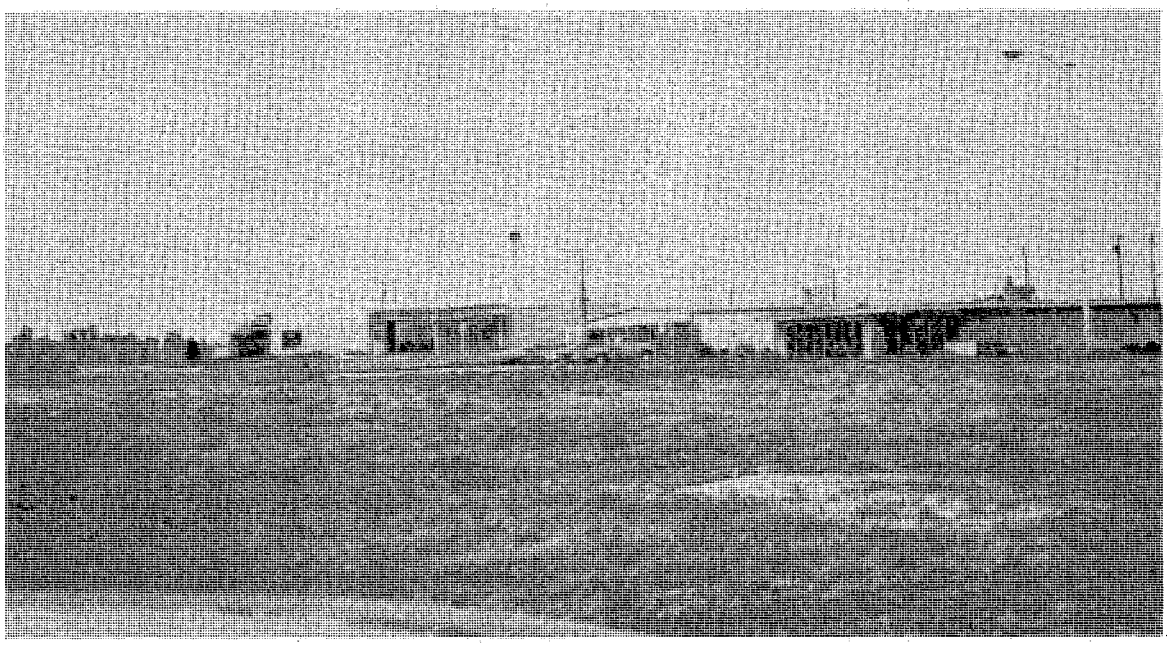

Figure 10. Business section of new Mannford.

Figure 11. An arterial street in new Mannford.

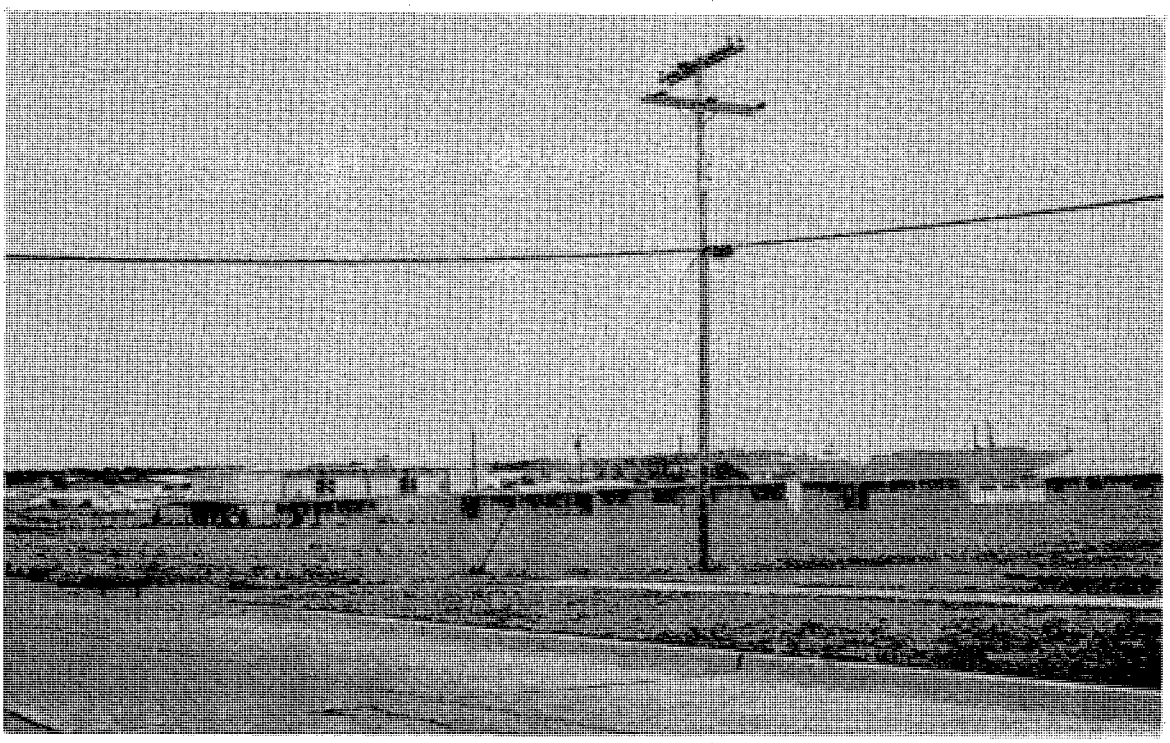

Figure 12. New Mannford High School.

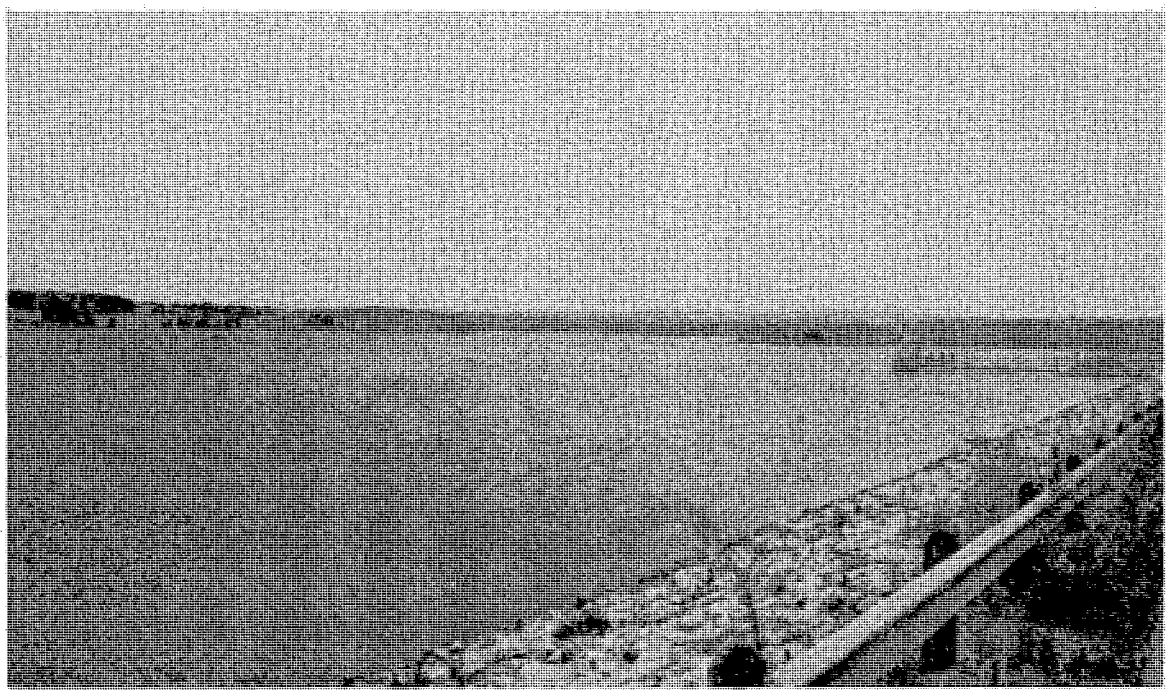

Figure 13. New Mannford City Reservoir.

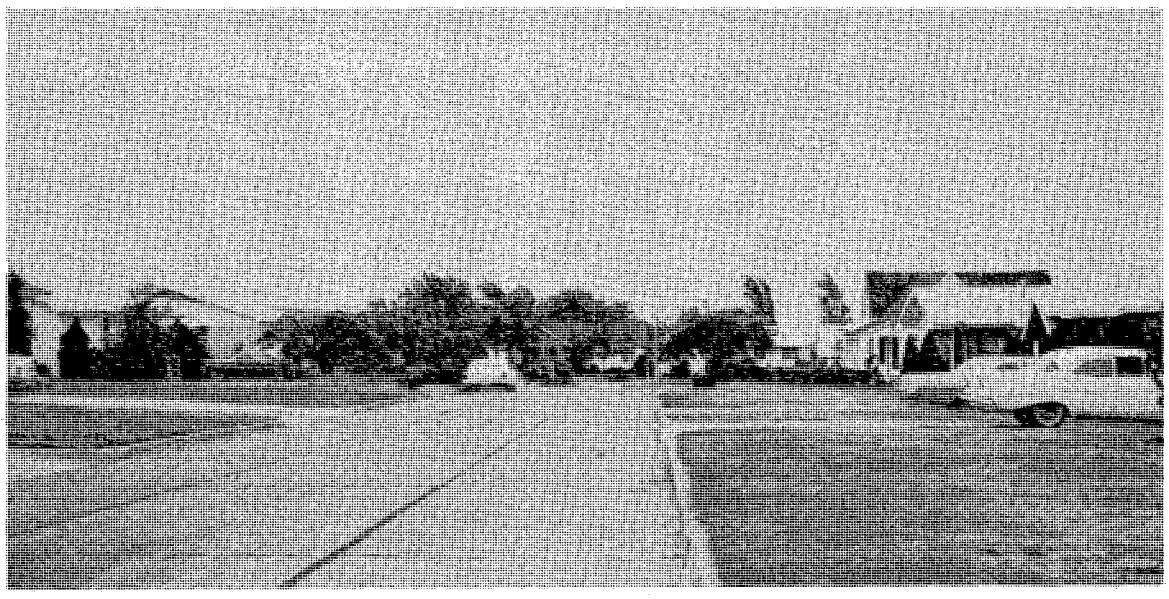

Figure 14. A residential street in new Mannford.

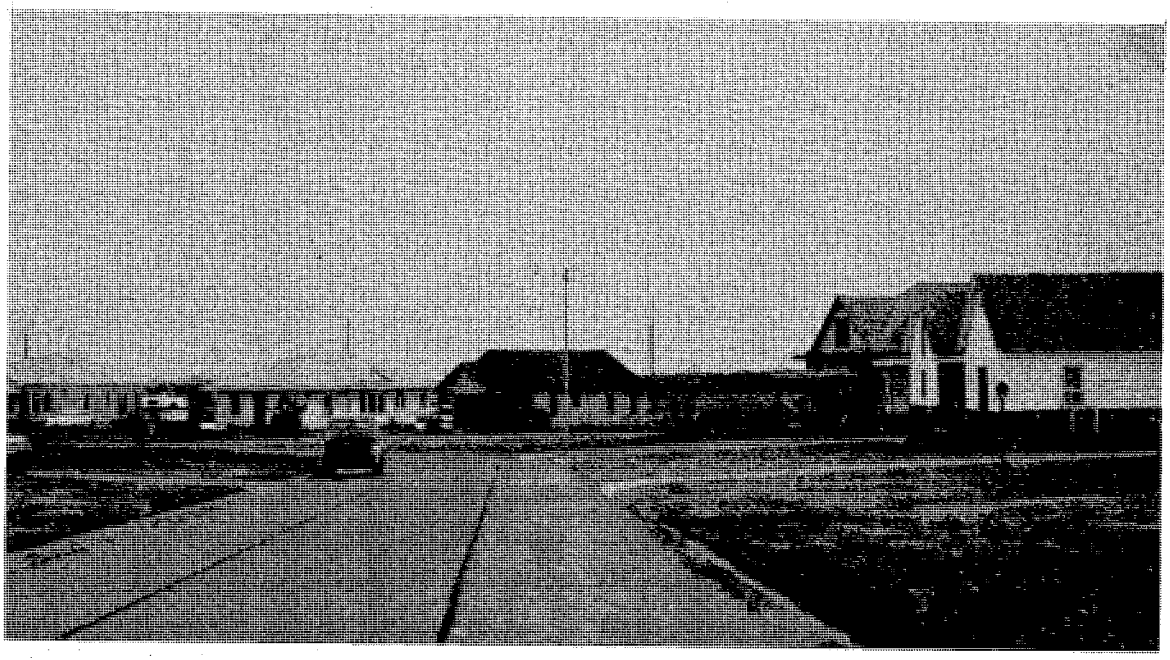

Figure 15. Old Mannford houses which were moved to new Mannford.

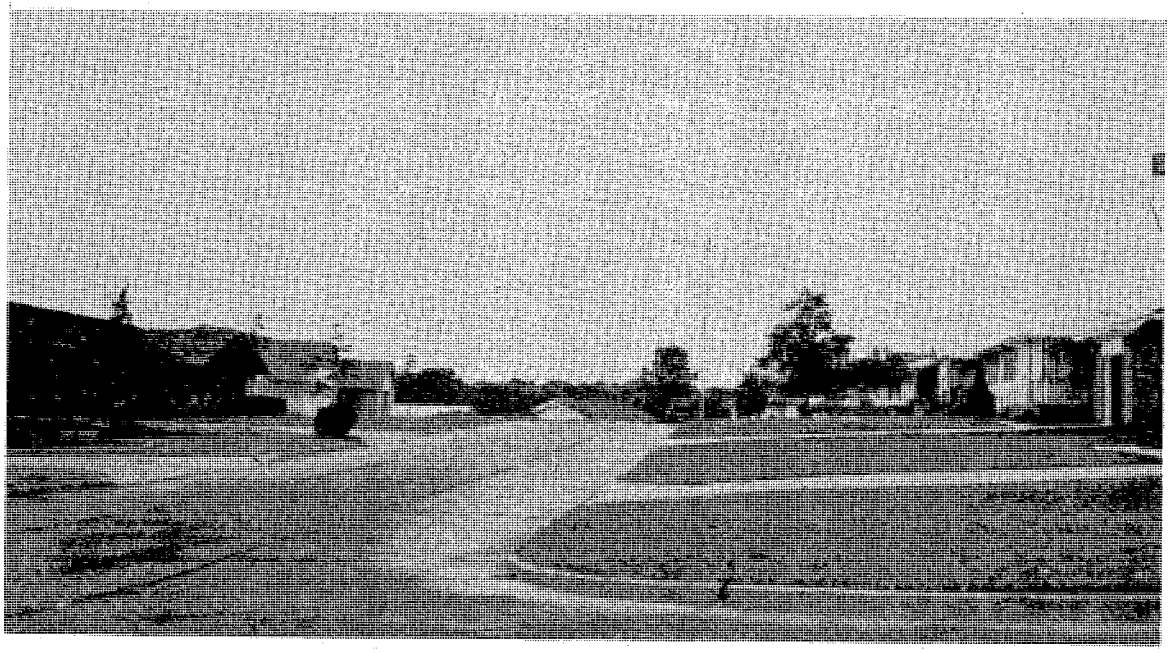

Figure 16. A new Mannford neighborhood.

Most of the rural residences are located to the west and south of the new town and are made up of relocated houses, new houses, houses which were built before the community's relocation, and numerous mobile homes. These areas have developed haphazardly due to the lack of restrictions and buildings codes outside the city.

There are a number of lakeshore subdivisions in the study area. Most of the residences in these areas are modest houses or mobile homes; however, there are a few very large and impressive homes in these areas.

6. Police and Fire Protection

Police protection in the new town is provided by the Town Marshall as it was in the old town. Although the population of the new town is more than three times that of the old town, he reports that there has been no significant increase in the number of arrests made. Most "incidents" involve city youths and are not of a serious nature.

Fire protection is still provided by a volunteer fire department, however, it has acquired new and better equipment including a fire engine purchased new in 1962 with excess funds from the government's lump sum payment. The new equipment coupled with an adequate water supply has resulted in reduced fire insurance rates for residents as the town is now rated in the ninth class of the National Board of Fire Underwriters' standard rating schedule (2).

7. Property Values

It is evident from first hand observation that property values within the new town are considerably higher than in the old town although sample results were inconclusive due to respondents' reluctance to answer questions regarding property values. The volume of new construction, the rehabilitation of older homes, and the construction of new facilities such as concrete-paved streets and sewers have contributed to a substantial increase over old Mannford property values.

Land adjacent to the reservoir has increased in value remarkably since reservoir lands were appraised by the Corps of Engineers. It is not uncommon to find small lots in lakeshore subdivisions, with few improvements, valued at five to ten thousand dollars.

8. Schools

The new Mannford School, constructed in 1962 at a cost of $345,000, was designed for 400 students. By the 1965-66 school year the enrollment had grown from 374 to 414 and a new elementary school had to be built. As shown in Table V, there were 596 students enrolled in the schools during the 1968-69 school year compared with 360 before the relocation. The number of teachers employed had increased from 16 to 40. According to the sample, Mannford residents consider the school system adequate to excellent.

9. Churches

All of the six churches in the old town had completed new structures in the town early in 1963 (3). Each was constructed on a large tract to provide for future expansion and much-needed parking space. All of these facilities are neat and attractive and blend well with the surrounding residential areas. Many of the families interviewed considered the community's churches to be one of its most significant "selling points," and every family in the sample attends church in the new community.

10. Recreation Facilities

Presently there are no city park improvements or recreation facilities in the new town. However, in 1966, Mannford voters approved a bond issue of nearly half a million dollars to finance a large marina and city park to be located on the Salt Creek arm of the reservoir at the edge of the city limits (13). Construction of the park and marina has been delayed pending the sale of the bonds. There appears to be no immediate need for this facility as similar ones are provided in the immediate vicinity as shown in Figure 8.

11. Social Characteristics

The old Mannford families who live in the new community have retained most of their social ties from the old town.

However, some of the families interviewed complained that they "do not see old friends and neighbors as often" and that they "see a lot of new faces." They welcome new people to the community while, at the same time, they miss the intimacy of the old town. Although the majority of the old Mannford residents have remained together in one area of the new town, discussions with the sample families revealed that some social bonds may have weakened as a result of the rearrangement of neighborhoods. Only 23 per cent of the sample families reported membership in civic or social clubs or organizations in the new town as contrasted with 85 per cent in the old town.

12. Attitudes of the Local People

When asked if they felt their families had benefitted from the Keystone Reservoir the majority of the sample families (60 per cent) answered yes. They felt the benefits took the form of community improvements, recreational opportunities, increased property values and other indirect economic benefits. Estimates of annual benefits by some of the families ranged from nothing to $500 per year.

The majority of the sample families (62 to 69 per cent) felt that they were happier in the new community, that the relocation was worth the expense and inconvenience encountered, and that they had actually prospered since the relocation. It is worth noting that 30 per cent of the sample families had changed their feelings from objection

to approval in the six years since the relocation.

There are some in the new town who are still dissatisfied with their displacement. One widow interviewed maintained that the displacement and relocation were the cause of her husband's death. She felt that he was unhappy with the loss of their home in the old town and his grief contributed to his illness. Another elderly widow complained that she could not go to town as often in the new town as in the old town because she had no transportation and the distance, although less than a quarter of a mile, was too far to walk.

In the rural area one respondent indicated that he had lost respect for the Corps of Engineers because "they purchased land that was not inundated and they prolonged the land acquisition process." Another family who lived near the lake complained of a loss of privacy due to the traffic to and from nearby recreation facilities and that they had even had property stolen occasionally since the reservoir development.

CHAPTER V

DISCUSSION

A. General

The following is a discussion of some of the social and economic effects of the reservoir development on the Mannford community and an evaluation of their apparent causes as determined from the investigations. The causes discussed pertain to the study area and do not necessarily apply to the entire reservoir area.

B. Opposition to Displacement

The indication from the sample that 60 per cent of the residents objected to the displacement at first and that 30 per cent had changed their opinions six years after the relocation is an indication of a lack of good public relations. The Corps of Engineers and local leaders failed to promote and "sell" the new community to the local people. Families had "deep roots" in the old community based on strong social bonds and psychic values, and the Corps of Engineers did not provide the extra incentive to persuade them to relocate. Instead, they were forced to move. As a result about one third of the old Mannford families resent their displacement.

The opposition can also be attributed to the Corps of Engineers' failure to educate the local people--to point out the need for the project and the benefits that could be derived from it.

C. Land Acquisition

Land acquisition policy was probably the most significant cause of the hardships experienced by the Mannford people. Most of the complaints of residents can be traced to the Corps of Engineers' public relations and its interpretation of "just compensation" as provided by the Fifth Amendment of the Constitution of the United States.

The opinions of some landowners that the Corps purchased more land than required probably would not have formed had the Corps explained the operation of the reservoir for flood control, the need for public use areas and the necessity to control unsightly waterfront development. Some landowners' ill feelings could have been avoided through the Corps' deviation from hard-and-fast regulations governing the taking line and through its purchase of public use lands agreed to by the landowners concerned. Some displaced families could have realized lower replacement costs had the Corps advised them and assisted them in relocating.

While most of the displaced families were satisfied with the payment received for their property, the Corps of Engineers' "fair market value" interpretation of "just

compensation" caused the most serious problems in the relocation of the community. Some families were forced to break their social ties with the community and move to other communities because they could not afford to move their homes or rent or buy homes in the study area. Some business establishments were dissolved for the same reason. The fact that the Corps paid the town a lump sum equal to the reasonable cost of replacement of the town-owned facilities and landowners were paid only the fair market value for their property suggests inconsistency in the Corps' acquisition policies.

D. Relocating the Town

From the time the townspeople decided to relocate the town until the relocation was completed, town officials and leaders encountered countless tasks and problems involving federal, state, and local agencies, contractors, school districts, public and private utilities, and consulting firms as well as the state legislature. The city's contract with the Corps of Engineers provided for the payment of a lump sum to the town upon completion of the relocation except that partial payments could be made as construction progressed (6). Besides the many administrative and incidental costs incurred by the town, it had to pay a third of the costs of planning the new town. Because of the delay in receiving government payments and due to the other costs incurred, the town experienced a shortage of working

capital, and lots in the new townsite had to be sold before the streets and utilities could be developed. In the opinion of the town's executive administrator during the relocation (2), "the town came out ahead in the long run in spite of the inconveniences it encountered. After the costs of the initial improvements in the new town were paid out of the lump sum settlement, there was enough left over to purchase a new fire engine."

E. Effects of the Development on the Community's Economy

The study area has experienced remarkable economic growth since the relocation of Mannford and the development of Keystone Reservoir. Increases in population, number of businesses and industries, employment and property values are evidence of the economic growth (15). The reservoir's exceptional recreational attraction is probably the most important factor leading to the economic success of the relocated community. The excellent transportation routes serving the area, the proximity of the town to the Keystone Reservoir and the Tulsa Metropolitan Area and the well-planned development of the new town have also contributed to its economic growth. In general, the development of the Keystone Reservoir and its associated improvements, including the relocation of Mannford, has completely reversed the community's declining economy.

Although the community has grown substantially, its population has not grown at the rates anticipated by the

Institute of Community Development and local officials. In 1957 the Institute planned the town to provide for a population of 20,000 within 30 years (22). In 1964 the Executive Adviser to the City Board of Trustees estimated the town's population would reach 12,000 by 1969 (17). The population had increased since 1965 at a nearly uniform rate of 214 per year. At this rate it would reach only about 6,000 by 1987--considerably less than expected.

F. Effects of the Development on the Social Structure of the Community

The relocation of Mannford and subsequent development in the new community have caused a weakening of the community's social bonds. The percentage of families having kinship ties to the community has been reduced due to the increase in population from outside the study area. And interpersonal relations can no longer be described as intimate because the relocated residences have been rearranged and residents have lost some of their contacts and associations with old friends and neighbors. The reduction in the percentage of sample families having memberships in local clubs and organizations is considered evidence of the weaker social structure. In effect, the strong social bonds of the small, old community have been "diluted" due to the relocation and subsequent population growth. This effect is not considered serious but rather a temporary condition which will be overcome in time.

G. Effects of the Development on the Welfare of the Local People

Some residents in the new community are not satisfied, but the majority feel that the improvements and conveniences provided in the new town and the economic growth of the community have offset the losses and inconveniences incurred in relocating. They feel that their living standards and overall welfare have improved as a result of the relocation and the reservoir development.

The minority's dissatisfaction with the new community can usually be traced to their resentment of being uprooted from their old homes. Although only one widow queried felt that relocation contributed to her husband's death, other respondents indicated that as many as six local families had experienced similar circumstances. The respondents generally sympathized with the families' alienation by the government. As previously discussed, the Corps of Engineers might have prevented some of these attitudes through better public relations.

CHAPTER VI

CONCLUSIONS

Based upon the results of investigations previously presented, the following conclusions are drawn concerning the social and economic effects of the Keystone Reservoir on the community of Mannford, Oklahoma:

1. The Mannford community has experienced considerable economic growth as a result of the construction of the Keystone Reservoir and associated improvements and the relocation of the city of Mannford.

2. The construction of the reservoir and associated improvements and the relocation of the town of Mannford have resulted in the improved well-being of the majority of the old Mannford residents.

3. The Keystone Reservoir development, through the relocation of Mannford, contributed to the weakening of the interpersonal relationships among the people of the old Mannford community.

4. The following adverse effects of the reservoir development could have been minimized or avoided if the Corps of Engineers had anticipated the effects during the planning stages, engaged in an enthusiastic public relations campaign and adopted a policy of equitable treatment of all

effected by the land acquisition procedure:

(a) Some residents feel resentment or have lost respect for the government because of the Corps of Engineers' land acquisition policies.

(b) Some displaced families and businesses incurred replacement costs above the "fair market value" paid by the Corps of Engineers for their property.

(c) Some families who rented homes in the old town could not rent comparable homes in the new town due to increased property values.

(d) Some residents resent being moved from their old homes and blame the government for their unhappiness in the new community.

(e) The town encountered a shortage of working capital due to the government's method of payment of the negotiated replacement costs.

CHAPTER VII

SUGGESTIONS FOR FUTURE WORK

The following are suggestions for future work related to the study presented herein:

1. A study of the social and economic characteristics of the residents who moved to Mannford, Oklahoma after its relocation. Their customs, habits, employment, origin, and reasons for moving to the community would provide information for use in predicting the social and economic effects of future projects.

2. A comparison of the land acquisition policies and procedures of federal and state water-development agencies at selected reservoir projects and an evaluation of the success of each agency in affecting an equitable reservoir evacuation. A study of this nature would provide valuable data for use in formulating land acquisition criteria and repayment policies.

4. A study of the social and economic effects of the relocation of the community of Kaw City, Oklahoma which is currently under construction as a result of the development of Kaw Reservoir. If undertaken in the near future, this study would provide valuable data for comparison with a similar study in the distant future. The results of the

two studies would show the economic growth of the community and the degree of adjustments made by the local people.

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APPENDIX

QUESTIONNAIRE FOR RELOCATED HOUSEHOLDS OF OLD MANNFORD, OKLAHOMA

A STUDY OF THE SOCIAL AND ECONOMIC EFFECTS OF KEYSTONE RESERVOIR ON THE COMMUNITY OF MANNFORD, OKLAHOMA

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June, 1969

PART A

This part should be answered for conditions as they existed in 1962. (Prior to Mannford's relocation)

1. Was residence located within ____ or outside ____ corporate limits of city?

2. When did household move to Mannford?

3. Reasons for moving to old Mannford?

4. Ages of all members of household (1962).

5. Number of males ____, and females ____ in household.

6. Years of school completed by males 25 years old and older (1962).

7. Years of school completed by females 25 years old and older (1962).

8. Race: White ____ Nonwhite ____. (If both, indicate number of each)

9. How many members of household were retired? (1962)

10. Number of unemployed seeking employment.

11. Employed members of household in 1962. (Indicate part-time employment as "P. T.")

	AGE	OCCUPATION	TENURE	PLACE OF EMPLOYMENT
(a)				
(b)				

(c)

(d)

(e)

12. Household income (1962).

	AGE	INCOME FROM WAGES OR SALARY	PROPRIETOR INCOME	INCOME FROM OTHER SOURCES
(a)				
(b)				
(c)				
(d)				
(e)				

13. Was home owned ____ or rented ____?

14. Estimated value of home if occupant owned. $_____

15. (a) Was other property owned in Mannford? Yes ____ No____

(b) If so, estimated value. $_____

16. Approximately how much did you pay in annual property taxes in 1961? $_____

17. (a) Did you ever consider moving to another community? (Before 1962) Yes ____ No ____

(b) Why or why not?

18. (a) Main advantages of living in old Mannford.

(b) Main disadvantages.

19. What words would you have used to describe old Mannford? (1962)

20. Number of household members who attended church in old Mannford ____; in another community ____.

21. Clubs or civic organizations with which household members were associated.

22. Did members of household have relatives in old Mannford? (other than in same household). Yes ____ No____.

23. Where did you go . . . . .

    (a) To shop for major items such as furniture, appliances and major items of clothing?

    (b) For entertainment or amusement?

    (c) For outdoor recreation?

    (d) To bank?

    (e) For routine visits to your family doctor?

    (f) For emergency medical treatment?

    (g) To attend church?

    (h) To visit your dentist?

24. How often did household shop in another community? ____ times per _____.

25. If workers worked in another community, did they stop off to shop before or after work? Yes ____ No ____.

26. Ignoring new Mannford and considering only conditions as they existed in old Mannford, how would you classify the following? (Grade them Good, Adequate, Inadequate or None.)

    (a) Police protection -

(b) Fire protection -

(c) City water and gas -

(d) City streets -

(e) City sewers -

(f) Garbage collection -

(g) Parks and recreation -

(h) Municipal buildings -

(i) Educational facilities -

(j) Medical facilities -

(k) Church Facilities -

(l) Cultural and entertainment facilities -

(m) Shopping facilities -

(n) Restaurants and eating places -

(o) Banking facilities -

(p) Tourist accommodations -

(q) Available housing -

(r) Employment opportunities -

(s) Comunity progressiveness -

(t) Community pride -

PART B

This part should be answered for present (1969) conditions.

1. Is residence located within ____ or outside ____ corporate limits of city?

2. When did household move to Mannford?

3. Reasons for moving to Mannford?

4. Ages of all members of household.

5. Number of males ____, or females ____ in household.

6. Years of school completed by males 25 years old or older.

7. Years of school completed by females 25 years old or older.

8. Race: White ____ Nonwhite ____ (If both, indicate number of each)

9. (a) How many members of household are retired?

   (b) How long have they been retired?

10. Number of unemployed seeking employment?

11. Employed members of household (indicate part-time employment as "P. T.").

	AGE	OCCUPATION	TENURE	PLACE OF EMPLOYMENT
(a)				
(b)				
(c)				

12. Household Income.

(a)

(b)

13. (a) Do any members of the household work in new Mannford at jobs that did not exist in old Mannford? Yes ____ No ____.

(b) If so, indicate which as shown in questions 11 and 12.

(c) Did they work in other jobs in old Mannford? Yes ____ No ____.

(d) Did they work in another community? Yes ____ No ____

(e) Did any members of household, who now work in another community, work in old Mannford? Yes ____ No ____

(f) If so, indicate which as shown in question 11 and 12.

14. Is home owned ____ or rented ____?

15. Estimated value of home if occupant owned. $_____

16. (a) Is other property owned in Mannford? Yes ____ No ____.

(b) If so, estimated value. $_____

17. Estimated 1968 property taxes. $_____

18. (a) Have you considered moving to another community since moving to Mannford? Yes ____ No ____

(b) Why, or why not?

19. (a) Main advantages of living in Mannford.

(b) Main Disadvantages.

20. What words would you use to describe Mannford?

21. Number of household members who attend church in Mannford ____; in another community _____.

22. Clubs or civic organizations with which members of household are associated.

23. Do members of household have relatives living in Mannford? (Other than in same household) Yes _____ No _____.

24. Where do you go . . . . .

    (a) To shop for major items of furniture and clothing?

    (b) For entertainment and amusement?

    (c) For outdoor recreation?

    (d) To bank?

    (e) To visit your family doctor?

    (f) To visit your dentist?

    (g) To attend church?

    (h) For emergency medical treatment?

25. How often does household shop in other communities? _____ per _____.

26. If workers work in another community, do they stop off to shop before or after work? Yes _____ No _____

27. Without comparing New Mannford with Old Mannford, how would you classify the following as they exist in Mannford today? (Rate them Good, Adequate, Inadequate, None.)

    (a) Police Protection -

    (b) Fire Protection -

(c) City water and gas -

(d) City streets -

(e) City sewers -

(f) Garbage collection -

(g) Parks and recreation -

(h) Municipal buildings -

(i) Medical Facilities -

(j) Educational facilities -

(k) Church facilities -

(l) Cultural and entertainment facilities -

(m) Shopping facilities -

(n) Restaurants and eating places -

(o) Banking facilities -

(p) Tourist accommodations -

(q) Available housing -

(r) Employment opportunities -

(s) Community progressiveness -

(t) Community pride -

28. Was house moved to its present location? Yes ____ No ____

29. Does respondent feel that his household has benefitted, directly or indirectly from Keystone Reservoir? Yes ____ No ____

30. (a) Can Respondent estimate the monetary value of any benefits the household has derived from Keystone Reservoir? $_____ per _____.

(b) From what do these benefits accrue? Explain.

31. If other residents were sharing the cost equally, what would respondent be willing to pay annually, say in taxes, to prevent loss of Keystone Reservoir? $_____

32. If respondent were trying to persuade a family to move to Mannford, what would he use as "selling points"?

33. Previous residence. (City)

PART C

1. What was household's reaction when it first learned that the Keystone Project would require its relocation?

2. What was the attitude of the household toward relocation of Mannford as an entity?

3. (a) Had the household's attitude toward relocation changed by the time the relocation was completed? Yes ____ No. ____

   (b) If yes, explain.

4. What amount would the household have been willing to pay to avoid relocating? $_____

5. After the new townsite was acquired and the plan of development was revealed

   (a) Did the household approve of the plan? Yes ____ NO ____

   (b) Did the attitude toward relocation change? Yes ____ No ____

   (c) If yes, explain.

6. If the household had not been forced to relocate and a buyer had offered to buy its property, what minimum offer would have been accepted at that time? $_____

7. What was finally paid for the property? $_____

8. (a) Does respondent feel the payment received was fair? Yes ____ No ____

   (b) If no, what was respondent's estimate of the value of the property? $_____

   (c) Why does respondent feel property was worth more? (1) Appraised value, (2) Psychic value (3) Incentive to move, (4) Other (state)

9. What were reasons for moving to new Mannford rather than another community?

   (a) Social bonds, (b) Employment, (c) School, (d) Anticipated community growth, (3) Kinship, (f) Other (state)

10. Did household continue maintenance and repair of home and other property until moving? Yes ____ No ____

    If no,

    (a) How long before moving was maintenance discontinued?

    (b) What was the nature of repairs or maintence needed when household moved?

    (c) What would have been the approximate cost of repairs? $_____

11. How long did household remain after property was purchased by government?

12. (a) Did the resettlement allowance paid by the government cover moving expenses? Yes ____ No ____

(b) If no, what is respondent's estimate of the shortage?
$_____

13. (a) Was respondent able to purchase property comparable to old Mannford property at approximately the same price he was paid for the old property? Yes ____ No ____

(b) If not, why?

14. Was respondent able to find comparable rental property in new Mannford for approximately the same rent paid in old Mannford? Yes ____ No ____

15. In general, would household describe living in new Mannford as more enjoyable _____, less enjoyable _____, or about the same _____ as living in old Mannford?

16. Do the advantages, if any, of living in the new community offset the losses and inconveniences experienced in relocating? Yes _____ No _____

17. In general, has the household gained, prospered or otherwise benefitted as a result of the relocation of Mannford? Yes ____ No____

18. Does respondent know any of the reasons why some residents of old Mannford chose not to relocate in new Mannford? (List)

VITA 2

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Master of Science

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