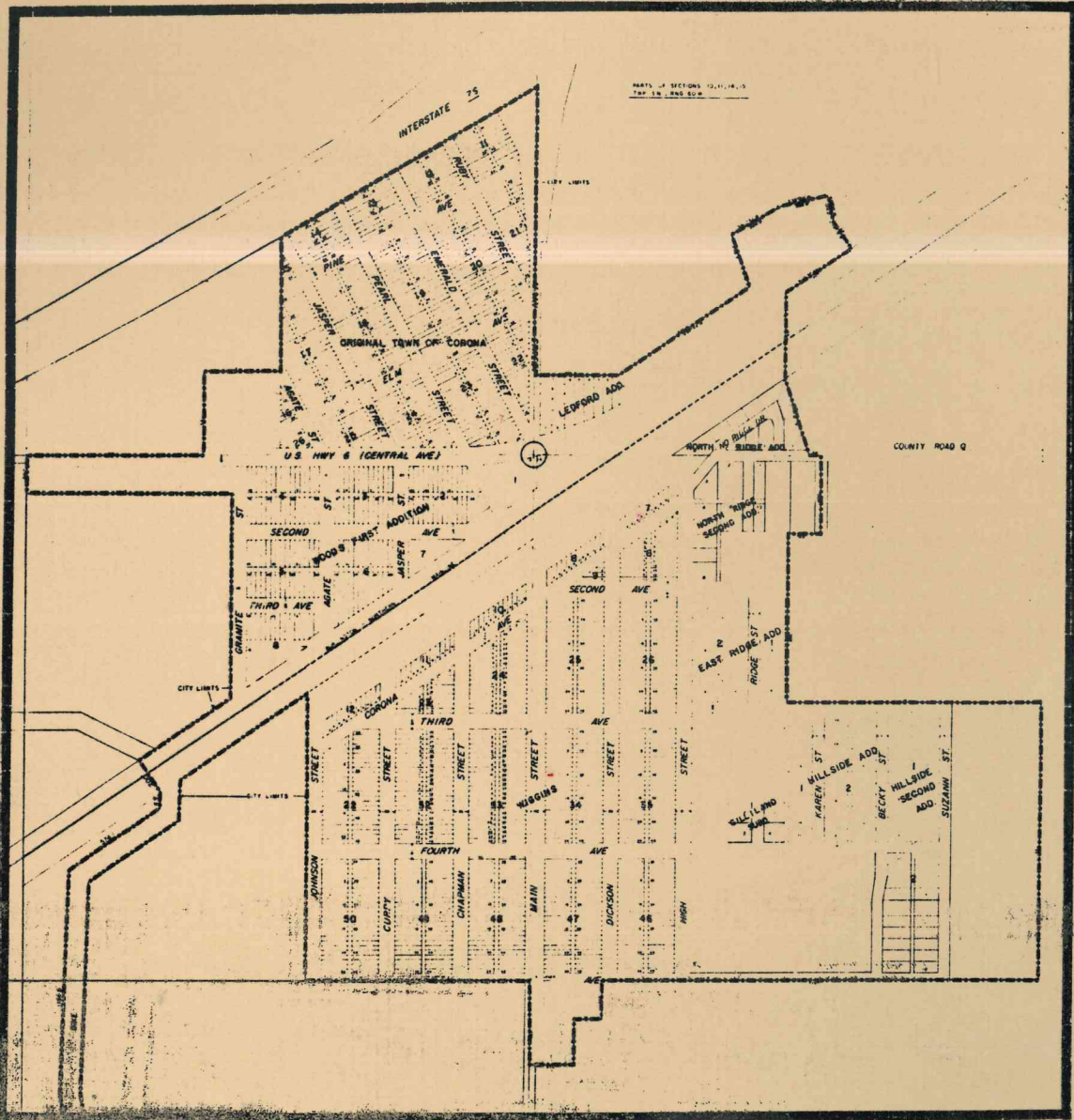


Town of Wiggins

Colorado



Comprehensive Plan

1991

TOWN OF WIGGINS COMPREHENSIVE PLAN

March 1991

Produced by:

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Table of Contents

	<u>Page</u>
I. INTRODUCTION	I-1
A. Foreword	I-1
B. Purpose and Intent	I-1
C. Legislative Authority	I-2
D. Planning Process	I-2
E. Vision Statement	I-5
II. PLANNING AREA	II-1
A. Regional Setting	II-1
B. Planning Area	II-1
C. Historical Background	II-2
III. POPULATION/SOCIOECONOMIC CHARACTERISTICS/ ECONOMIC DEVELOPMENT	III-1
A. Population and Housing -- Existing Conditions/ Demographics	III-1
B. Employment Data/Economic Profile	III-5
C. Population and Housing Forecasts	III-15
D. Economic Development	III-18
IV. PUBLIC SERVICES, FACILITIES, UTILITIES AND DRAINAGE	IV-1
A. Public Facilities and Services	IV-1
B. Water System	IV-6
C. Wastewater System	IV-13
D. Electric Power	IV-16
E. Natural Gas	IV-16
F. Drainage	IV-17
G. Public Services, Facilities, and Utilities Plan	IV-18
V. ENVIRONMENTAL RESOURCES AND HAZARDS	V-1
A. Soils/Topography	V-1
B. Climate	V-2
C. Wildlife	V-3
D. Hydrology and Floodplains	V-4
E. Mineral Resources/Extraction	V-5
F. Geology	V-5
G. Vegetation/Ecosystems	V-6
H. Environmental Constraints Map	V-7
VI. LAND USE PLANNING	VI-1
A. Existing Land Use	VI-1
B. Existing Zoning	VI-5
C. Future Land Use Plan	VI-10
VII. CIRCULATION AND TRANSPORTATION PLANNING	VII-1
A. Existing Conditions	VII-1
B. Circulation and Transportation Plan	VII-5
C. Goals, Objectives, and Policies	VII-8

Table of Contents (Continued)

	<u>Page</u>
VIII. PARKS, RECREATION, AND OPEN SPACE PLAN . . .	VIII-1
A. Existing Conditions	VIII-1
B. Park and Recreation Standards	VIII-2
C. Parks, Recreation, and Open Space Plan . . .	VIII-3
D. Goals, Objectives, Policies	VIII-3
 APPENDIX	
A. Comprehensive Plan Amendment Process	
B. Annexation Criteria	
C. Park and Recreation Standards	

List of Tables

Table 1.	Town of Wiggins Population Statistics	III-1
Table 2.	Population Trends, 1980-1990, Wiggins, Neighboring Communities, and Morgan County . .	III-4
Table 3.	Population Characteristics, 1980, Wiggins, Morgan County, and State of Colorado	III-5
Table 4.	Housing Characteristics, Wiggins, 1980 and 1990 -- Occupied Dwellings	III-6
Table 5.	Labor Force, Employment, and Unemployment, Morgan County and State of Colorado, 1980-1990	III-7
Table 6.	Employment by Industrial Sector, Morgan County, 1987-89	III-9
Table 7.	Morgan County Retail Sales by Industrial Classification (\$000) 1984-1988	III-10
Table 8.	Oil and Gas Production Statistics, Morgan County, 1981, 1986-1989	III-11
Table 9.	Value of Crops, Morgan County (\$000)	III-12
Table 10.	Livestock, Morgan County	III-13
Table 11.	Farm Statistics, Morgan County	III-14
Table 12.	Assessed Valuation, Town of Wiggins and Morgan County	III-15
Table 13.	Assessed Valuation by Land Use, Town of Wiggins, 1989 and 1990	III-16
Table 14.	Population Forecasts, Wiggins, Morgan County, and the State of Colorado	III-18
Table 15.	Housing Forecasts, Wiggins, 1990-2010 . . .	III-18
Table 16.	Average Water Demand	IV-9
Table 17.	Future Water Demands	IV-11
Table 18.	Roadway Design Standards	VII-7

List of Figures

	<u>Page</u>
Figure 1.	Town of Wiggins Population Trends III-3
Figure 2.	Town of Wiggins Population Projections, 1980-2010 III-19
Figure 3.	Water System IV-7
Figure 4.	Sewer System IV-15
Figure 5.	Environmental Constraints Map V-10
Figure 6.	Existing Land Use and Zoning -- Planning Area VI-3
Figure 7.	Existing Land Use and Zoning -- Town . . . VI-6
Figure 8.	Future Land Use Plan -- Planning Area . . . VI-19
Figure 9.	Future Land Use Plan -- Town VI-20
Figure 10.	Annexation Plan VI-32
Figure 11.	Circulation and Transportation Plan . . . VII-10
Figure 12.	Parks, Recreation, and Open Space Plan . VIII-5

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DOCUMENT PRODUCTION NOTE

The following document was produced by Foxfire Community Planning and Development, Frederick G. Fox, A.I.C.P., Principal Planner. All materials contained herein are facts obtained or determined by myself or my subcontractors to be true to the best of our knowledge. Any omissions or errors are not to be construed as liability against the firm of Foxfire Community Planning and Development, its subcontractors, or myself.

Signed: _____


Frederick G. Fox

Date: _____

APRIL 17, 1991

I. INTRODUCTION

A. Foreword

This Comprehensive Plan for the Town of Wiggins, Colorado, has been developed by the Town Board, interested citizens, and the consulting firm of Foxfire Community Planning and Development of Denver, Colorado, with its major subcontractor, ARIX Engineers of Greeley, Colorado. Financing of this project was provided by a State of Colorado Energy Impact Assistance Grant and supplemental funds provided by the Town of Wiggins.

B. Purpose and Intent

The purpose of the Plan is to guide future decision making by Town officials through the year 2010. A Comprehensive Plan is a comprehensive description of the town's physical and social attributes as well as a statement, taking these attributes into account, of future goals and directions the community should strive for. The achievement of these goals is to be facilitated by a series of objectives and policies relevant to each goal. The entire Plan serves to guide Town decision making toward the realization of a future that has been comprehensively considered not only today but continuously over time.

Once adopted, the general purposes of the Plan are to:

1. Guide day-to-day development decision making.
2. Continuously facilitate communication between residents and the town government.
3. Assist in coordinating various municipal government functions.
4. Provide a basis for developing specific and necessary regulations which govern the physical development of the Town.

The Plan is intended to outline the most logical use of land and development of public facilities in and around Wiggins, in accor-

dance with the Plan's goals, objectives, and policies and sound planning principles.

The Comprehensive Plan is meant to be a flexible document which can evolve and respond to changing conditions. When new economic conditions or urban development patterns begin to prevail, the Plan should be expanded and modified. With careful amendment of the Plan, it can continue to be a meaningful document to guide decisions on land use, public facilities, and urban development.

C. Legislative Authority

This Comprehensive Plan has been developed under the authority conferred by the Colorado Revised Statutes 1973, 31-23-202 and 31-23-206, as amended, to make and adopt a master plan for the physical development of the municipality, including territory outside its corporate boundaries.

D. Planning Process

The preparation of the Wiggins Comprehensive Plan was divided into five phases that covered in total a period of about nine months. These phases are described below.

Phase 1. Project Start-Up and Base Map. This phase included orientation to the Town, a workshop with the Planning Committee to delineate planning area boundaries and establish planning issues and concerns, and preparation of the base map.

Phase 2. Data Collection, Analysis, and Mapping. Foxfire and its subcontractor gathered, analyzed, and mapped data concerning existing conditions present in the planning area for a range of topics (land use, environment, transportation, etc.) that make up key elements in the plan. A major public workshop was held with the Planning Committee where this information was presented.

Phase 3. Preliminary Plan Preparation. Drawing upon the data produced during Phase 2 and adding the futures portions of the plan, a preliminary plan draft was developed for review and subsequent revision. Goals, objectives, and policies were developed for the various plan elements, along with relevant

futures maps. The draft preliminary plan was presented in a public workshop.

Phase 4. Community Involvement Process (Formal). An ongoing part of the planning process, numerous public meetings and workshops were held to keep residents and Town officials informed about the progress of the Plan and to offer ample opportunities for feedback during its preparation. This phase included presentations at formal public hearings prior to plan adoption.

Phase 5. Document Development. A preliminary draft plan and preliminary executive summary were produced during this phase, reviewed, revised, and developed into final camera-ready drafts. Large-scale maps were reduced and set up for publication, including the color future land use map.

The planning process has allowed Town officials, residents, and Foxfire (with ARIX Corporation) to come together, exchange information, critically examine present conditions in Wiggins and its planning area, and formulate a document that will help guide future decisions and growth in Wiggins.

E. Vision Statement

Wiggins' vision for the future is tied to its past and its agricultural base. This Plan envisions that the Town should strive to grow and begin to diversify its economy while maintaining a small town atmosphere. The Town needs to improve the quality of public services provided and develop the capital improvements necessary to improve the quality of life in the community for present and future residents.

II. PLANNING AREA

A. Regional Setting

The Town of Wiggins is located on the eastern plains of Colorado in western Morgan County, about 65 miles northeast of the Denver metropolitan area. Wiggins is one of five incorporated municipalities in the county, the others being Brush, Fort Morgan (the county seat), Log Lane Village, and Hillrose. Fort Morgan is about 15 miles east of Wiggins.

Morgan County is square in shape and covers approximately 1,296 square miles. The county is bisected by the South Platte River, which flows west to east. This river is located about 8 miles north of Wiggins. Major water bodies in the vicinity of Wiggins include Empire Reservoir (4 miles northwest), Jackson Reservoir (11 miles north), and Bijou Reservoir #2 (5 miles northeast), all part of the South Platte drainage basin. The unincorporated communities of Orchard, Goodrich, and Weldona lie north of Wiggins along the South Platte River. Agriculture is the dominant industry in Morgan County, and most of the land surrounding Wiggins is in agricultural production, primarily dryland farming, irrigated farming, or livestock operations.

B. Planning Area

Wiggins' Planning Area covers approximately 12 square miles (7,680 acres) and is bounded by Morgan County Road S on the north, County Road O on the south, County Road 6 on the east, and County Road 3 on the west. The planning area is bisected diagonally in a southwest-to-northeast direction by Interstate 76 and the main line tracks of the Burlington Northern Railroad. Other major roadways include U.S. Highways 6 and 34 and State Highway 52. Most of the land surrounding Wiggins is used for agricultural production. There are no residential subdivisions outside of Wiggins' corporate boundaries in the planning area; however, there is one industrial subdivision.

The major drainage element in the planning area is Kiowa Creek, located between the western edge of Wiggins and County Road 3. Kiowa Creek flows north through the planning area to the South

Platte River. A portion of the floodplain for Bijou Creek intrudes into the eastern edge of the planning area; however, the Town itself and the majority of the planning area are not within any designated floodplains.

The purpose of the planning area is to define the area around the Town of Wiggins that influences the residents' quality of life and also to delineate potentially annexable areas for future growth of the Town. It is not anticipated that the planning area will come close to being fully developed within the 20-year time frame of the plan, and it is, therefore, divided into Primary and Secondary Growth Areas to direct planning efforts. Discussion of these growth areas can be found in the future land use section of the Plan.

C. Historical Background¹

The first settlement in the region around Wiggins was known as Green City, laid out in 1871, located near the South Platte River southwest of the present town of Orchard. This town served as a trading post and stage stop on a branch of the Overland Trail. The name of the town was later changed to Corona. In 1881 the Burlington and Missouri River Railroad pushed westward through the site of what is now Wiggins and on to Denver. Wiggins was known as "Corona" by the railroad because the post office from Corona (Green City) had been moved to the present town site. In 1897 the name was changed to Wiggins. The arrival of the railroad also brought early homesteaders, including farmers and ranchers. The town was named after Oliver Perry Wiggins, a frontiersman and government scout.

Dryland farming became the primary occupation in the Wiggins region, with irrigation wells appearing in the mid-1930s that aided in the recovery from the Depression and dust bowl times several years earlier. The Town was damaged by major floods in 1935 and 1973. The 1973 flood was a major impetus for incorporation of

¹Much of the information for this section came from the book, *Heritage of Wiggins*, by the Wiggins Historical Group, Inc., published in 1988.

Wiggins, which occurred on October 1, 1974. The 1980 census showed a population for Wiggins of 532 people.

In recent years the agricultural economy has rebounded from the difficult times of the late 1970s and early 1980s when low crop prices and high interest rates caused many farms to be sold. However, rising energy prices could negatively impact agricultural profitability in the future while conversely, spur an increase in oil and gas production in the area. Agriculture will continue to be the major economic lifeblood of Wiggins as the Town enters the 1990s and beyond, but structural changes in the American economy, continued depletion of ground water, and the historic volatility of commodity prices could force the residents of Wiggins to search for other economic opportunities.

III. POPULATION/SOCIOECONOMIC CHARACTERISTICS/ECONOMIC DEVELOPMENT

A. Population and Housing -- Existing Conditions/Demographics

Population Trends

There are no population figures for Wiggins as an incorporated area prior to 1980. The Census Bureau did tabulate numbers for the "Wiggins Division," a land area that encompassed the Town and portions of the surrounding vicinity. Figures for this territory are shown in Table 1, along with population numbers for the Town from 1980 to 1990. The line graph in Figure 1 depicts the Town's population during the decade of the '80s.

Table 1
Town of Wiggins Population Statistics

<u>Wiggins Division</u>		<u>Town of Wiggins</u>	
<u>Year</u>	<u>Population</u>	<u>Year</u>	<u>Population</u>
1930	865	1980	532 (Census)
1940	859	1981	533
1950	1,382	1982	544
1960	2,030	1983	550
1970	1,778	1984	532
		1985	521
		1986	502
		1987	505
		1988	510
		1989	521
		1990	499 (Census)
		1990	561 (Town)

Source: U.S. Department of Commerce, Bureau of the Census;
State of Colorado State Demographer (1981-89 figures)

The sharp drop from 1970 (Wiggins Division) to 1980 (Town of Wiggins) is because of incorporation of the Town in 1974, which resulted in a smaller territory for enumeration. Population increased from 1980 to 1983, then dropped by 48 people from 1983 to

1986. This drop can be attributed to several factors: closure of several businesses, a downturn in the oil and gas production, and the consolidation of agricultural holdings. Overall net change from 1980 to 1990 is -6.2 percent.

Preliminary figures from the 1990 census put Wiggins' population at 499 people. Town officials feel this figure is too low. Town counts put the population at 561, and this number is being appealed to the Census Bureau.

Looking at regional trends, Table 2 compares Wiggins' population trends for 1980 to 1990 with Brush, Fort Morgan, and Morgan County. Wiggins and Morgan County both showed a net decline for the period (when using the 1990 census figures in the calculation), while Brush had a slight increase and Fort Morgan had the most growth with a net increase of 3%.

Figure 1

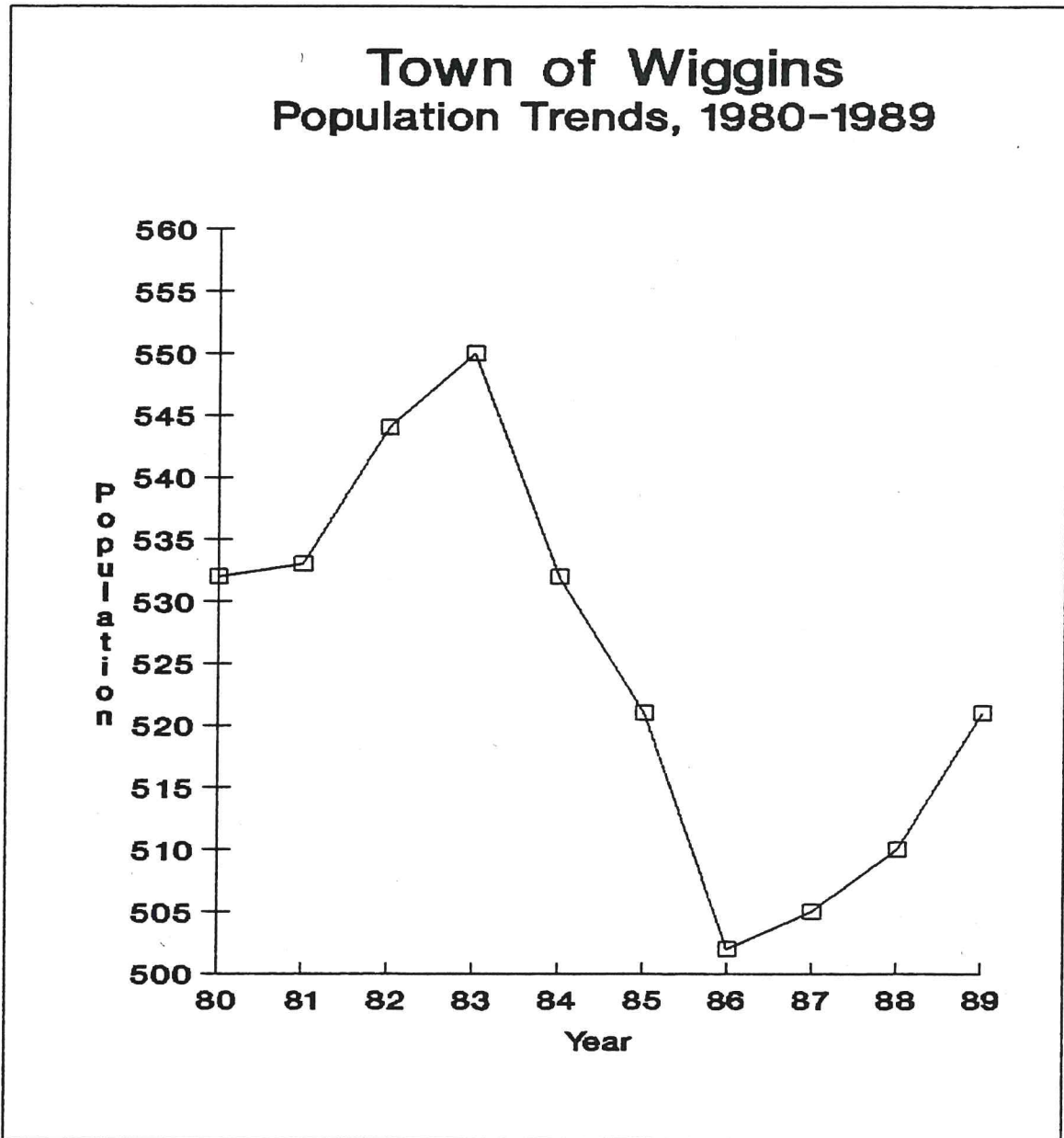


Table 2
Population Trends, 1980-1990
Wiggins, Neighboring Communities, and Morgan County

	<u>Wiggins</u>	<u>Brush</u>	<u>Fort Morgan</u>	<u>Morgan County</u>
1980 (Census)	532	4,082	8,768	22,513
1981	533	4,102	8,787	22,525
1982	544	4,223	8,929	22,869
1983	550	4,253	8,994	23,544
1984	532	4,367	8,934	23,162
1985	521	4,362	8,826	22,838
1986	502	4,195	8,511	21,976
1987	505	4,293	8,626	22,261
1988	510	4,317	8,697	22,615
1989	521	4,285	8,677	22,615
1990 (Census)*	499	4,141	9,028	21,882
Net Change				
1980-90	-6.2%	1.4%	3.0%	-2.8%

*Note: 1990 census figures are preliminary. The Town of Wiggins is appealing the 1990 census count of 499 people.

Source: U.S. Department of Commerce, Bureau of the Census;
Colorado Division of Local Government, Demographic Section

Population Characteristics

Population characteristics for Wiggins, Morgan County and the State of Colorado are shown in Table 3 for the year 1980. Wiggins had a considerably larger proportion of children aged 7-17 than either Morgan County or the State, indicating a higher percentage of school age children and a strong family orientation in the community. At the same time, there was about one-half the percentage of individuals 65 years and older in Wiggins as compared to Morgan County. This suggests that Wiggins is a community with a large share of younger families, and the elderly people in Morgan County are located in communities other than Wiggins (most likely

in Brush [with 18.3% 65 and older] and Fort Morgan [15.5% 65 and older] where support services are more easily accessible).

Table 3
Population Characteristics, 1980
Wiggins, Morgan County, and State of Colorado

<u>Population Segment</u>	<u>Wiggins</u>		<u>Morgan County</u>		<u>State of Colorado</u>	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Male	266	50.0	11,155	49.5	1,434,293	49.6
Female	266	50.0	11,358	50.5	1,455,671	50.4
0-6	55	10.3	2,666	11.8	297,154	10.3
7-17	132	24.8	4,175	18.5	511,659	17.7
18-64	310	58.3	12,821	57.0	1,833,826	63.5
65+	35	6.6	2,851	12.7	247,325	8.6

Source: U.S. Department of Commerce, Bureau of the Census;
Colorado Division of Local Government, Demographic Section

Housing Trends

Housing trends in Wiggins from 1980 to 1990 are somewhat counter to population trends for the same period. While there was an overall decrease of about 6% for the decade in population, the total number of housing units increased by 5.3%, from 169 to 178. As shown in Table 4, the increases occurred in single-family and manufactured housing. The number of multifamily units decreased by slightly over half.

The modest increase in housing units may be attributable to renters converting to ownership status. During the last five years very little new construction has taken place in Wiggins. Only three new single-family units have been added in that period with a similar number of permits for expansions to commercial/industrial properties pulled for the same time period. The majority of permits (averaging about 22 per year) were for remodeling and property improvements projects such as interior expansion/rehabilitation, siding, garages, and fences.

The lack of housing growth is related primarily to the current economics of housing development. Incomes are not rising enough to make the cost of new homes affordable. The need for additional

housing in Morgan County has been recently documented, but Wiggins is currently too far from the County's major employment centers to warrant the construction of new units in the Town. Should additional employment opportunities become available in Wiggins, pressure for new construction should translate into new units, since the community's vacancy rate is nearly zero.

Table 4
Housing Characteristics, Wiggins
1980 and 1990 -- Occupied Dwellings

<u>Type</u>	<u>1980</u>		<u>1990</u>		<u>Net Change</u> <u>1980-1990</u>
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	
Single-Family	130	76.9	140	78.7	7.7%
Multifamily	10	5.9	4	2.2	-60.0%
Manuf. Housing	29	17.2	34	19.1	17.2%
Total	169	100.0	178	100.0	5.3%

Source: Colorado Division of Local Government,
Demographic Section; Foxfire

B. Employment Data/Economic Profile

There are few sources of economic data for small communities like Wiggins. In cases where no local economic information was available, data on Morgan County has been presented to give insight into the structure of the regional economy and overall regional trends.

Table 5
Labor Force, Employment, and Unemployment
Morgan County and State of Colorado
1980-1990

	<u>Total</u>	<u>Total</u>	<u>Total</u>	<u>Percent</u>
	<u>Labor Force</u>	<u>Employment</u>	<u>Unemployment</u>	<u>Unemployment</u>
<u>Morgan County</u>				
1980	12,282	11,558	724	5.9
1981	11,916	11,254	662	5.6
1982	12,170	11,093	1,077	8.8
1983	10,805	9,863	942	8.7
1984	10,589	9,874	715	6.8
1985	10,061	9,067	994	9.9
1986	9,632	8,545	1,087	11.3
1987	9,804	8,885	919	9.4
1988	9,937	9,208	729	7.3
1989	9,861	9,205	656	6.7
1990	10,319	9,709	610	5.9
Average Annual Growth, 1980-1990	-1.5%	-1.5%	-1.4%	
<u>State of Colorado</u>				
1980	1,500,000	1,412,000	88,000	5.9
1981	1,538,000	1,453,000	85,000	5.5
1982	1,588,000	1,465,000	123,000	7.7
1983	1,669,000	1,558,000	111,000	6.7
1984	1,714,000	1,617,000	97,000	5.6
1985	1,720,000	1,619,000	101,000	5.9
1986	1,696,000	1,570,000	126,000	7.4
1987	1,694,000	1,564,000	130,000	7.7
1988	1,699,000	1,590,000	109,000	6.4
1989	1,672,176	1,572,941	99,235	5.9
1990	1,710,460	1,616,816	93,644	5.5
Average Annual Growth, 1980-1990	1.3%	1.3%	0.6%	

Notes:

1. 1980 to 1988 figures are annual averages, January to December.
2. 1989 figures are annual averages, January to November.
3. 1990 figures are March estimates.

Source: Colorado Department of Labor and Employment, Labor Market Information Section

Employment

Labor force growth in Morgan County has been erratic from 1980 to 1990, with an overall average annual decline of 1.5% for the decade (see Table 5). In comparison, the State of Colorado experienced a average annual increase in labor force of 1.3% for the same period. The figures are the same for total employment. These trends are reflected in unemployment rates for Morgan County which, for every year except 1980, are higher than those of the state, in some cases (1985-87) by a wide margin. While the overall picture for employment in Morgan County is somewhat dismal, there has been a general upward trend since 1986, and unemployment rates have moderated.

Employment Distribution

The distribution of employment in Morgan County by industrial sector is shown in Table 6. Manufacturing and wholesale and retail trade (combined) are the largest employment categories followed closely by government and services. (Note that due to a difference in sources, total County employment in this table differs from that of Table 5.) Surprisingly, farming is only 3.1% of total employment. However, a large portion of the manufacturing employment is agriculturally related, coming from meat products and sugar production plants. The net change percentages reveal that miscellaneous agricultural services, services, wholesale trade, and mining experienced the strongest growth during the period, while the construction and FIRE (finance, insurance and real estate) sectors were the weakest. Total employment in the County did show a positive 7.1% increase.

Table 6
Employment by Industrial Sector
Morgan County, 1987-89

	<u>1987</u>		<u>1988</u>		<u>1989</u>		<u>Net Change</u>
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>1987-89</u>
Mining	185	2.6	216	2.9	209	2.7	13.0%
Construction	240	3.3	240	3.2	215	2.8	-10.4%
Manufacturing	1,633	22.5	1,765	23.5	1,684	21.7	3.1%
TCU	247	3.4	280	3.7	265	3.4	7.3%
Wholesale Trade	465	6.4	492	6.6	535	6.9	15.1%
Retail Trade	1,201	16.6	1,193	15.9	1,221	15.7	1.7%
FIRE	280	3.9	260	3.5	250	3.2	-10.7%
Services	1,235	17.0	1,280	17.0	1,473	19.0	19.3%
Government	1,497	20.6	1,528	20.3	1,618	20.8	8.1%
Misc. Ag. Services	19	0.3	21	0.3	51	0.7	168.4%
Non-Farming Total	7,002	96.6	7,275	96.9	7,521	96.9	7.4%
Farming	249	3.4	234	3.1	244	3.1	-2.0%
TOTAL EMPLOYMENT	7,251	100.0	7,509	100.0	7,765	100.0	7.1%

Source: State of Colorado, Department of Labor and Employment,
Labor Market Information Section

Retail Sales

Retail sales are another indicator of economic trends. Retail sales data for Morgan County classified by industrial sector are shown in Table 7 for the period from 1984 to 1988. Retail trade is by far the largest retail sales category, followed by TCU (transportation, communications, utilities) and other services.

Net change percentages reveal that manufacturing, agriculture, and mining sectors experienced the strongest growth in retail sales. Retail trade, FIRE, contract construction, government and "unclassifiable" sectors declined. Total sales have also declined for the period. While some sales categories experienced growth, the decline in the largest sector, retail trade, shows a weakness in the County's overall economy.

Table 7
Morgan County Retail Sales by Industrial Classification (\$000)
1984-1988

<u>Classification</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>Net Change</u> <u>1984-1988</u>
Retail Trade	197,354	185,849	185,531	184,339	173,482	-12.1%
FIRE	860	2,069	3,897	2,937	694	-19.3%
Hotel and Lodging	2,174	1,901	1,816	1,831	2,195	1.0%
Other Services	11,872	11,743	8,558	10,055	15,421	29.9%
Wholesale Trade	11,829	13,175	8,691	12,370	13,419	13.4%
Agriculture	1,153	1,579	1,690	1,765	1,950	69.1%
Mining	1,621	1,471	2,778	3,801	2,566	58.3%
Contract Construction	7,791	8,972	6,652	7,589	6,270	-19.5%
Manufacturing	5,481	4,940	4,617	10,337	12,369	125.7%
TCU	18,427	18,602	18,756	16,174	17,552	-4.7%
Government	5,212	5,044	4,723	4,649	5,046	-3.2%
Unclassifiable	0	0	0	0	0	--
TOTAL	263,774	255,345	247,709	255,846	250,963	-4.9%

Source: University of Colorado at Boulder, Graduate School of
Business Administration, Business Research Division

Oil and Gas

Oil and gas production statistics for Morgan County reveal major decreases in production and sales from 1981 to 1989 (see Table 8). The number of producing wells dropped by over 30%, from 147 to 102. The most recent net change percentage for the 1988 to 1989 period documents a continued downturn in oil and gas production in Morgan County. However, recent events in the Middle East and the dramatic upturn in oil prices point to increased domestic drilling and production activity, which could counteract recent declining trends.

Table 8
Oil and Gas Production Statistics
Morgan County
1981, 1986-1989

<u>Indicator</u>	<u>1981</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>Net Change</u>	
						<u>1981-89</u>	<u>1988-89</u>
Oil Produced (Barrels)	399,211	429,074	263,756	225,572	182,952	-54.2%	-18.9%
Oil Sold	N/A	438,471	262,499	224,292	177,658	N/A	-20.8%
Gas Produced (MCF)	1,443,224	1,961,587	1,196,759	921,739	762,045	-47.2%	-17.3%
Gas Sold	1,233,851	1,706,035	964,885	759,605	642,824	-47.9%	-15.4%
No. of Producing Wells	147	144	109	108	102	-30.6%	-5.6%

Source: State of Colorado, Oil and Gas Conservation Commission

Agriculture

Agriculture is a major component of the economy in Morgan County, and the County is one of the top counties in Colorado in terms of agricultural production. Table 9 shows data on the value of crops in Morgan County and reveals an up-and-down trend during the first half of the '80s. Wheat and corn for grain account for the largest crop values, comprising roughly two-thirds of the total amount in 1985. In that year Morgan County was ranked third in the state for corn for grain and silage and fifth in the state for dry beans. The value of the County's crops as a percent of the state total does show a slow decline from 1980 to 1985.

Table 9
Value of Crops, Morgan County (\$000)

<u>Crop</u>	<u>1980</u>	<u>1982</u>	<u>1984</u>	<u>1985</u>
Wheat	\$11,296	\$ 6,055	\$ 9,993	\$10,934
Corn for Grain	25,776	31,018	30,185	30,439
Corn for Silage	4,843	4,361	5,776	3,572
Barley	621	390	644	1,009
Dry Beans	7,602	2,198	3,340	3,551
Sugar Beets	10,778	3,686	2,900	-- *
All Hay	6,851	6,380	7,935	7,917
Potatoes	3,258	2,520	3,052	3,845
Other	853	740	1,644	1,165
	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL	\$71,877	\$57,348	\$65,468	\$62,432
% of State Total	5.4%	5.3%	5.2%	5.0%

* Not published to avoid disclosure of individual operations.

Source: Colorado Department of Agriculture

Statistics on livestock in Morgan County (Table 10) display a similar declining trend as far as the County's percentage of the state total. Cattle and calves have been declining in number since 1984; hogs and pigs since 1981. However, Morgan County was still

the number one county in the state for hogs and pigs on farms in 1984 and number two in the state for cattle and calves on farms in 1986.

Table 10
Livestock, Morgan County

<u>Year</u>	<u>All Cattle and Calves</u>		<u>All Hogs and Pigs</u>	
	<u>Number</u>	<u>% of State Total</u>	<u>Number</u>	<u>% of State Total</u>
1980	187,000	6.3%	44,500	14.4%
1981	190,000	6.1%	51,500	15.6%
1982	163,000	5.4%	48,500	16.7%
1983	148,000	4.9%	41,500	16.0%
1984	149,000	4.8%	32,500	15.5%
1985	134,000	4.5%	34,500	15.3%
1986	115,000	4.0%	--	--

Source: Colorado Department of Agriculture

Table 11 reveals a very interesting picture of what the actual trends are regarding farming in Morgan County for the period from 1978 to 1987. Over 90% of the land in the County is being farmed, but the number of farms and the number of irrigated acres have dropped. Average farm size has increased, as have the sales per farms (rather substantially). However, the average value of farms (land and buildings) has decreased. Using the data from this table, one can infer the following overall trend in Morgan County farming: Fewer and bigger farms are producing more crops on less irrigated acres with less capital investment, i.e., farms are becoming larger and more efficient, with a consolidation of farm acreage that may be squeezing some of the smaller operations out of the picture.

Table 11
Farm Statistics, Morgan County

<u>Indicator</u>	<u>1978</u>	<u>1982</u>	<u>1987</u>	<u>Net Change</u>	
				<u>1978-87</u>	<u>1982-87</u>
Number of Farms	939	846	800	-14.8%	-5.4%
Total Farm Acreage	777,833	696,308	743,263	-4.4%	6.7%
% of County Land in Farm	95.2%	85.2%	91.0%	--	--
Average Size (Acres)	828	823	929	12.2%	12.9%
Irrigated Acres	459,198	430,139	382,339	-16.7%	-11.1%
No. of Irrigated Farms	657	557	500	-23.9%	-10.2%
Average Annual Sales Per Farm	\$213,010	\$197,351	\$345,288	62.1%	75.0%
Average Value of Farms (Land and Buildings)	\$413,790	\$544,678	\$360,791	-12.8%	-33.8%

Source: Colorado Department of Agriculture

Assessed Valuation

Assessed valuation in Wiggins and in Morgan County is compared in Table 12 for the 1980 to 1989 period. The valuation increase in 1987 is mainly due to the use of a new base year (1985) in determining assessments. Both Wiggins and the County show a drop in valuation since 1987 that is primarily attributable to the decrease in Colorado of the residential assessment rate from 16% to 15%. For the entire period, the County had an increase in assessed valuation about one and one-half times that of Wiggins.

Table 12
Assessed Valuation
Town of Wiggins and Morgan County

	<u>Wiggins</u>	<u>Revenue</u>	<u>Morgan County</u>
1980	\$1,609,290	\$26,617	\$147,349,070
1981	1,684,130	29,607	181,280,220
1982	1,759,260	31,980	190,123,470
1983	1,894,950	36,425	196,554,930
1984	2,012,040	40,231	201,961,440
1985	1,967,850	44,033	200,509,630
1986	2,055,900	43,688	197,315,740
1987	2,563,660	46,261	239,414,640
1988	2,394,540	46,301	223,896,610
1989	2,053,550	49,959	207,403,500

Net Change in Assessed Valuation 1980 - 89 = Wiggins -- 27.6%
Morgan County -- 40.8%

Source: Morgan County Assessor's Office,
"Abstract of Assessments and Tax Levies"

Table 13 has a breakdown of Wiggins' assessed valuation into assessment categories. As can be seen, residential and commercial properties are nearly equal in valuation amount and comprise almost 80 percent of the Town's tax base. The tax burden in Wiggins is being shared nearly equally between residential and commercial properties at present.

Table 13
Assessed Valuation by Land Use
Town of Wiggins, 1989 and 1990

<u>Valuation Area</u>	<u>1989</u>		<u>1990</u>	
	<u>Amount</u>	<u>% Distribution</u>	<u>Amount</u>	<u>% Distribution</u>
Vacant Land	\$113,530	5.5	\$113,680	5.5
Residential	808,600	39.4	826,720	39.7
Commercial	802,180	39.1	834,280	40.1
Industrial	168,890	8.2	174,070	8.4
Agricultural	18,690	0.9	14,730	0.7
Oil and Gas	6,090	0.3	0	0.0
State Assessed	135,570	6.6	119,010	5.7
Total	\$2,053,550	100.0	\$2,082,490	100.0

Source: Morgan County Assessor

C. Population and Housing Forecasts

Future growth or decline in Wiggins will be influenced by a number of factors, especially the overall condition of agriculture in Colorado. At present farmers in Colorado have enjoyed three profitable years since the agricultural depression of the mid-1980s. This year, 1990, is proving to be another year of record agricultural sales, for the fourth consecutive year. Drought is still a problem for portions of the Western Slope, but the eastern plains have received adequate precipitation in the past two to three years to alleviate concerns about water shortages.

A potential problem is the recent significant upswing in the price of oil. Higher costs for fuel and fertilizer will negatively impact profitability unless there are corresponding commodity price increases, which appears unlikely if record harvests occur. Farmers could experience a profit squeeze in the years to come, which would also impact the agricultural service sector and other retail businesses.

Another factor that may influence Wiggins' growth is the potential location of a hazardous waste incineration facility on a site near the Town in Morgan County. The project is expected to cost \$32 million, employ 60 people, and have a 20-year life span. All plant personnel would be required to live in the immediate vicinity of the facility. This would mean some population growth for Wiggins. The possibility of additional industry locating near the incineration facility because of the availability of "waste" heat has also been mentioned. The siting of this facility is uncertain at present, and if sited, the granting of an operational permit by the state is also uncertain.

Population Forecasts

Population forecasts for Wiggins, Morgan County and the State of Colorado are presented in Table 14. Two population forecast scenarios have been developed for Wiggins: Scenario "A" is based on the 1990 preliminary census population count for the Town of 499 people; Scenario "B" uses the 561 total population figure produced by Town officials and currently being appealed to the Census Bureau. The County and state forecasts were prepared by the state's demographic research division. As can be seen in Scenario "A", both Wiggins and Morgan County are projected to have declining population numbers over the bulk of the projection period. However, concerted economic development efforts by the Town and County could reverse the projected pattern of negative growth. Economic development is addressed in the following section. In Scenario "B" a positive future population increase is forecast for the Town, based on matching the 1.44% compound annual growth rate predicted for the State of Colorado. A graphic depiction of the population forecasts for Wiggins is shown in Figure 2.

Table 14
Population Forecasts
Wiggins, Morgan County, and the State of Colorado

	<u>Wiggins</u>		<u>Morgan</u>	<u>State of</u>
	<u>Scenario A</u>	<u>Scenario B</u>	<u>County</u>	<u>Colorado</u>
1990*	499	561	21,882	3,272,460
1995	483	603	22,727	3,639,162
2000	466	648	22,632	3,896,422
2005	450	696	22,522	4,155,214
2010	433	748	22,424	4,417,652
Average Annual Growth Rate	-0.67%	1.44%	-0.08%**	1.44%

* 1990 figures are preliminary counts from the U.S. Census.

** For 1995-2010.

Source: Foxfire; State of Colorado Division of Local Government, Demographic Section; U.S. Department of Commerce, Bureau of the Census

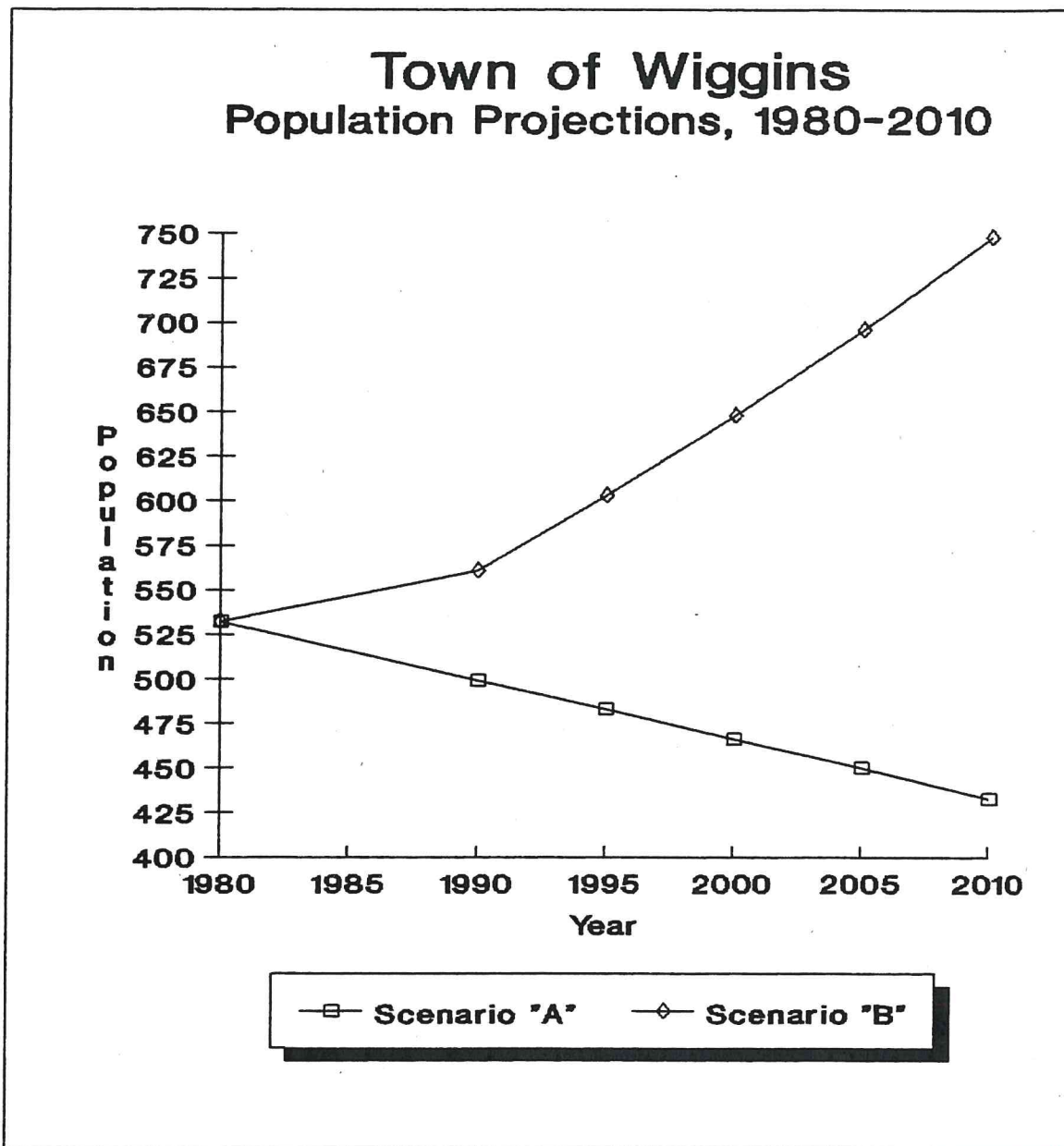
A housing forecast for Wiggins based on Scenario "B" is presented in Table 15. The forecast assumes that average household size will decline through the forecast period, mirroring a national trend.

Table 15
Housing Forecasts, Wiggins
1990-2010

	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>2010</u>
Population Estimate	561	603	648	696	748
Average Household Size	3.10	3.06	3.02	2.98	2.94
Estimated Total Housing	181	197	215	234	254

Source: Foxfire Community Planning and Development

Figure 2



D. Economic Development

Introduction

As can be seen from the foregoing population forecasts, the Town of Wiggins could experience a decline or an increase in the number of its residents over the next 20 years. The uncertainty results from an unclear picture at this time of the exact 1990 population for the Town. The reality may lie somewhere in between the two forecast scenarios. In any case, concerted action on the part of community leaders and residents to aggressively pursue economic development for the Town is highly recommended. It will require time, determined effort, and money.

Wiggins' economy right now is fairly one-dimensional, revolving primarily around farming and related agricultural service businesses. For the past few years in Colorado agricultural sales have been strong, as mentioned earlier. But agriculture is historically cyclical, subject to the vagaries of weather, commodity price volatility, and fluctuations in export markets. Wiggins should consider diversifying its economy to lessen its dependence upon agriculture and broaden its economic base. Implementation of an effective economic development strategy will allow the Town to influence the type, pace and location of growth and the character of the community. The Town must position itself to take advantage of opportunities that pop up in a changing environment.

Economic Development Process

Economic development has been defined as "a process of change that seeks to increase the wealth of a community by raising incomes and reducing unemployment."² In rural areas, economic development typically includes efforts in three areas:

- * new business recruitment (also known as "smokestack chasing"),
- * new business start-ups, and

²Frank Alguire, et al., "Small Town Economic Development, in PAS Memo, American Planning Association, January 1987, pp. 1-4.

- * business retention and expansion of existing businesses.

Most economic development practitioners agree that the greatest successes are achieved in pursuing the latter two strategies above. Research indicates that most new jobs are created by local small businesses that employ 20 or fewer people, run by local business people who understand the area and local customs.

Economic development is not something a community can simply jump into. A typical series of steps that are needed to develop and implement a successful economic development strategy is outlined below.

- * Identify local resources and interests. Methods include: surveys (needs and attitude assessment, existing businesses, market area); gather information on the local labor force, vacant and/or underused land and buildings, infrastructure, transportation services, etc.; assess the interest and commitment of the public and private sectors; analyze the availability of capital and external resources; check out state and county programs and/or assistance; look at possible cooperation with other communities; assess barriers that may exist; etc.
- * Establish community economic development goals and objectives. A local consensus is critical for a community to effectively marshal the necessary coordinated effort needed to foster economic growth. The type of growth desired must be spelled out.
- * Determine who will be responsible for economic development within the community. Typically a committee made up of a cross-section of public and private citizens is organized. These persons need to be recognized leaders in the community and be dedicated to the effort, since demands on their time will be great in order to achieve a successful outcome.
- * Formulate and implement an economic development strategy. The strategy should prioritize actions to be taken so that scarce resources are employed most effectively to achieve

the desired goals. An analysis of various alternatives could be part of the strategy formulation.

- * Evaluate the local economic development process. It is important to evaluate the performance of those responsible for implementing the strategy, the performance of individual projects and actions, and the performance of the local economic development effort as a whole.

Recommendations

Wiggins is at a critical juncture in terms of its future survival and livelihood. Economic and population trends point to a continuing decline. Without an infusion of new growth and expansion of the tax base, it will become increasingly difficult for the Town to maintain its infrastructure and provide necessary services to its residents without imposing burdensome tax increases.

Wiggins does have several factors in its favor: a good location near a major interstate highway and rail transportation link, available work force, inclusion in the Morgan County Enterprise Zone, available business sites, and reasonable proximity to metropolitan Denver. The Town needs to search for ways to diversify its economic base and promote more tax-generating commercial enterprises.

The following recommendations are intended to provide an outline of necessary actions that Wiggins must undertake to initiate an economic development effort.

- * Complete a community evaluation survey. The survey can be very helpful to determine what kinds of businesses Wiggins needs, what kind it can support, what barriers exist to developing new businesses, assets available in the community, and what Wiggins can do to help businesses grow.
- * Develop and prioritize goals and objectives of economic development efforts. It is important that community leaders and residents agree on a preferred future for Wiggins. When setting goals it is important to carefully

consider alternatives; thoroughly examine local problems, needs, assets, and opportunities; and not attempt to implement projects that are not understood by the community.

- * Establish an economic development fund. Seek donations from existing businesses to establish a fund to finance various expenses of the economic development effort. Research all available economic development assistance (personnel, programs, and grant money) currently available at the county, regional and state levels. In the beginning it is assumed that the Town government administration will provide the personnel to coordinate the project. In time, part-time and then full-time people will be needed to coordinate the numerous activities of a successful project. Addressing the issue of personnel and monetary resources early on in the project is an essential element for success.
- * Determine the type of growth desired. Agribusiness and manufacturing are two possibilities. Auto-related convenience retail and other businesses that tap into traffic on I-76 should be considered. The proposed hazardous waste incinerator, although not within the town limits, will have a major impact, and the ramifications of its siting and operation need to be looked at very carefully.
- * Determine who the players will be and develop a coordinative team. As mentioned, a committee approach is often used, with a cross-section of businesspeople, residents, and Town officials. Getting the local banker involved is essential. Whoever is chosen, they must understand that commitment, patience and perseverance are needed. And they cannot work in a vacuum. Community support and participation are critical.
- * Develop an economic development plan. The plan should spell out what the Town wants to accomplish, how, and when. In the near term, the focus should be placed on improving existing infrastructure and promoting the retention and

expansion of current businesses. Longer term actions could include targeting specific industries for recruitment efforts. Cooperative efforts with the Morgan County Economic Development Association are encouraged.

The economic development team needs to closely coordinate its efforts with the Morgan County Economic Development Association. Team members need to attend all Association meetings and closely monitor site selection processes of the Association's staff when they are dealing with prospective new business relocations for Morgan County. The team needs to keep abreast of real estate opportunities in and around Wiggins and have information on potential site owners, their lease or sale terms, and other individual site statistics.

- * Develop a Community Economic Profile. Utilizing information in this plan, a community profile can be prepared briefly describing Wiggins' attributes and vital statistics. A list of potential development sites should be prepared as part of this profile. Each entry on the list should include acreage, access attributes, and other vital information. The profile could be updated every year as sites change hands and development occurs. The profile should also contain important brochures that relate to recreation opportunities near the community. The community profile is used to provide specific information to prospective businesses considering locating in the area.

- * Implement the plan and evaluate the efforts. Implementation will require time, money, hard work, and a bit of luck. The public benefits and costs of development need to be part of the equation. Communication and continued commitment to economic development are crucial in both stimulating local business activity and in recruiting outside firms to relocate.

IV. PUBLIC SERVICES, FACILITIES, UTILITIES, AND DRAINAGE

A. Public Facilities and Services

Town Government

Wiggins is a statutory town in the State of Colorado with a mayor-trustees form of government. The Board of Trustees (Town Council) consists of six members, all with four-year terms. At each election three members are elected to four-year terms. The mayor is elected to a two-year term. The Town does not have a separate planning commission; development review is handled by the Town Council.

The Town staff consists of three full-time employees (manager, clerk, police chief) and a variable number of part-time workers who are mostly hired in the summer and assist in street and park maintenance activities. The Town Manager handles administrative duties, finance, and public works. The Town Attorney is appointed by the Town Council, as is the municipal judge. Court is held every other month.

The Town Hall is located at 213 Main Street in a building that originally housed the First State Bank of Wiggins. It contains two offices, a kitchen, and a narrow meeting room. A portion of the building adjacent to the Town Hall contains a rental apartment. The Town shops building is located across the street in the former fire house. A small office space in this building is used by Caring Ministries of Fort Morgan, a community service organization. Equipment owned by Wiggins is stored at various locations throughout the community.

The Town also owns Community Hall, located on High Street at Fifth Avenue, that operates under the authority of the Town Council.

Services provided by the Town include sewer, water, street maintenance, police protection, code enforcement, parks, and the municipal court.

Police Protection

Wiggins has one police officer who is the chief of police. The Chief serves at the discretion of the Town Council. Communications are handled by the Morgan County communications center. Wiggins is part of the 911 emergency network. The Town has one police car. Assistance, if necessary, is available from the Morgan County Sheriff's Department, which also provides police protection when the Town's officer is off duty or on vacation. The Police Department has an office in the Town Hall.

Fire Protection

Fire protection services for the Town of Wiggins and the surrounding area are provided by the Wiggins Rural Fire Protection District. The district was founded in 1950, and in 1989 its assessed valuation was \$14,949,180, with tax revenues totaling \$104,645. The District is operated by an elected five-member Board of Directors. The main fire station in Wiggins is located on the north side of U.S. Highway 6 near the western edge of the town. It was constructed in 1982 and replaced the old fire house on Main Street, which is now owned by the Town of Wiggins and is used for the town shops. The district encompasses about 300 square miles in Morgan County and is planning to add about 80 square miles in Weld County. The Town's fire rating is "6".

The district is all-volunteer and currently operates six vehicles: three pumpers, two tankers and one brush/grass unit. There are about 20 fire fighters. In 1987 the county-wide 911 emergency system came into use and fire personnel are furnished with pagers. Dispatching is handled by Morgan County Communications Center. There is a regular training and maintenance program, including instruction through AIMS Community College.

Future plans for the district call for satellite stations to be built in Goodrich and Hoyt (8 miles north and 15 miles south of Wiggins, respectively). These facilities are scheduled to be completed in 1991.

Telephone Service

Telephone service to Wiggins and a large surrounding area is provided by the Wiggins Telephone Association, an independent telephone company that was formed in 1951 and began service in 1953. The Association's central offices are located on Main Street in Wiggins and also in Hoyt. The service area for the Association includes two separate areas that generally cover the southwest and northwest corners of the county. The existing facilities are adequate and can be expanded as needed to meet future requirements. The Association has filed a tariff with the Colorado Public Utilities Commission effective January 1, 1991, to allow expanded local calling areas.

Locations outside of the Association's service area are served by U.S. West Communications.

Medical Services

There are no medical services available in the Town of Wiggins. Residents travel to Fort Morgan for medical care, about 15 miles east of Wiggins. Several clinics and numerous medical and dental groups are available in Fort Morgan, as well as Fort Morgan Community Hospital, a full-service facility. Mental health services and substance abuse treatment and counseling are also available in Fort Morgan and in the Denver metropolitan area. Medical services are also available in Greeley, a regional center about 40 miles northwest of Wiggins.

Ambulance service is provided by Morgan County, which operates a county-wide ambulance system. There is a satellite facility located in Wiggins with two vehicles, a box unit and a station wagon. The ambulance service and the fire district cooperate with each other in responding to emergencies.

Churches

There are four churches located in Wiggins: Our Lady of Lourdes Catholic Church, Summit Baptist Church, Wiggins Community Church, and Resurrection Life Ministries. Many other churches of varied denominations are located in Fort Morgan and Brush.

The Wiggins Care Center, a satellite branch of Caring Ministries of Morgan County, has an office in the Town shops building on Main Street. It is supported locally by Wiggins Community Church, Summit Baptist Church, and Our Lady of Lourdes Catholic Church. Caring Ministries is involved in homeless prevention and other community services.

Social Services

Morgan County provides a variety of social services that are available to Wiggins residents, including public assistance, aid to dependent children, abused children and foster care assistance, emergency assistance, and home repair assistance related to energy conservation. These programs are administered out of the county offices in Fort Morgan.

Solid Waste Removal

Solid waste disposal in Wiggins is handled by private haulers who contract with individual residents and businesses. Also, the county operates a waste transfer station at Wiggins Industrial Park that is used by many of the Town residents. Waste is taken to the county landfill located northeast of Fort Morgan. This facility is expected to have a useful lifetime of 50 more years.

Library Services

Library services are provided by the Wiggins School District, which has library facilities in the elementary school and high school. The libraries are open to Town residents. The district operates a summer reading program for children and adults. Additionally, there is a bookmobile that comes two to three times during the summer and more often in the fall and winter. The school district's libraries are not affiliated with any other branches or regional library services.

Education/Schools

1. Primary and Secondary Education

Primary and secondary education services are provided by the Wiggins School District (RE-50J). The district operates two schools, both located in Wiggins: an elementary school for grades K-6 and a combined junior/senior high school for grades 7-12. The district's coverage area is quite large, nearly 360 square miles, and includes portions of Adams, Morgan, and Weld Counties. The transportation fleet consists of nine buses and four station wagons, with six route buses and two kindergarten buses. The longest one-way transport is approximately 25 miles.

The district has 60 employees. It owns eight housing units that are used by employees (first priority) or are rented. Enrollment figures for the district are given below.³

Wiggins School District Enrollment

<u>Year</u>	<u>Number of Students</u>
1981	392
1982	420
1983	415
1984	405
1985	376
1986	400
1987	392
1988	411
1989	425
1990	430

In 1989 the district had a total valuation of \$14,622,920, with a mill levy of 43.227 and revenues of \$632,105.

The junior/senior high school has an extensive sports program, and a summer recreation program is also offered. The agricultural

³These figures are counts taken in October of each year.

character of the Wiggins area is reflected by the vocational agricultural curriculum. The district has a lease with the Town for a hog facility. There is a great deal of community involvement with the schools, and parents sit on a number of improvement and building committees. As can be expected in a smaller community, school activities are an important form of social interaction, particularly high school sports events.

There are no capacity problems at either of the schools, and large increases in enrollment are not anticipated. School enrollment in fact has been fairly steady over the past decade. Planned facility improvements include studying the feasibility of constructing a new gymnasium, which may occur after the bonds for the elementary school are retired.

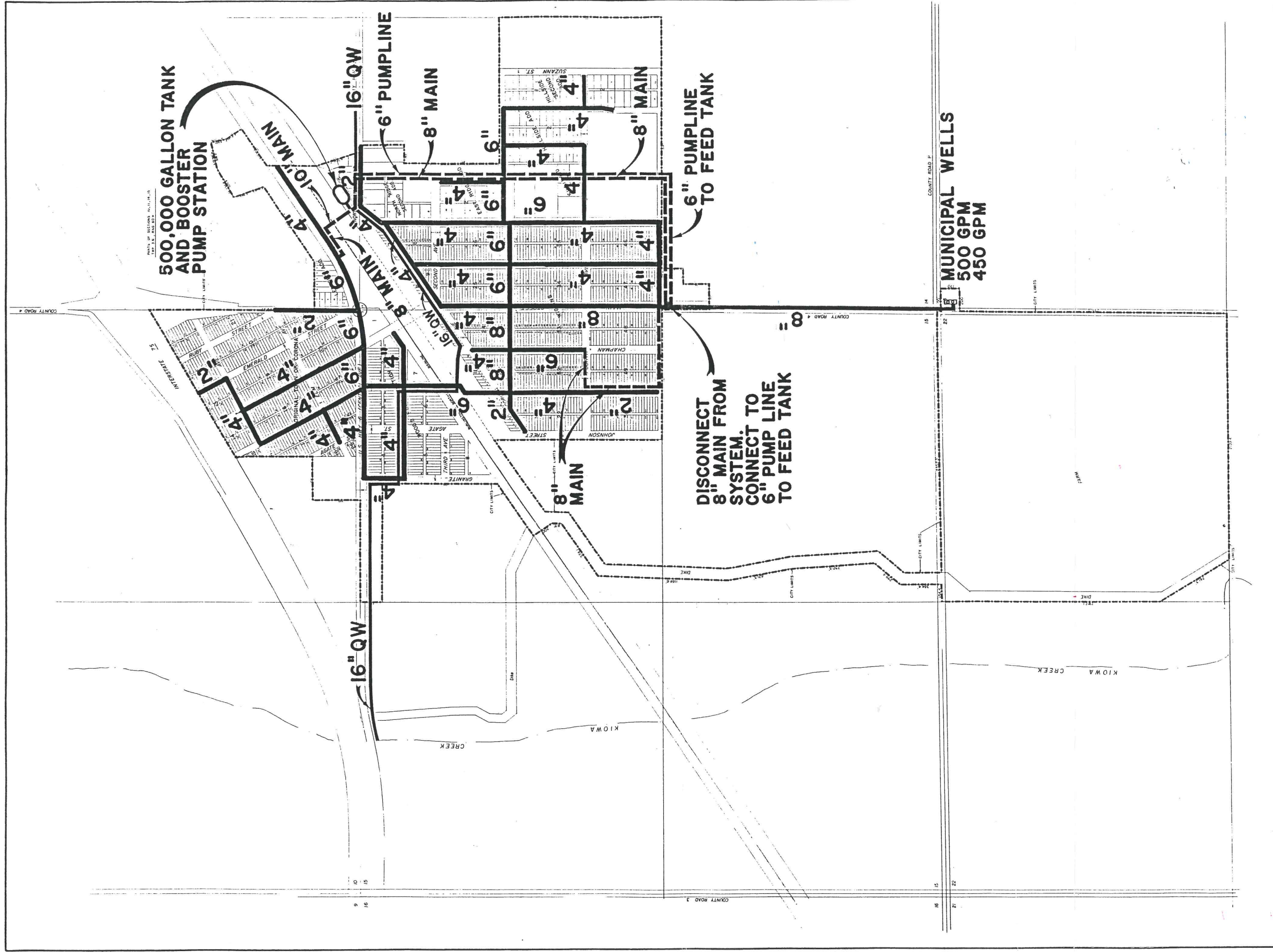
2. Post-Secondary and Vocational Education

Morgan Community College in Fort Morgan is the closest facility to Wiggins that provides post-secondary and vocational education. It offers associate degrees in a variety of subject areas. Four-year colleges nearby include the University of Northern Colorado in Greeley and numerous institutions in the Denver-Boulder area.

B. Water System

General

The municipal water system for the Town of Wiggins was constructed in 1969 and consists of two wells and about six miles of distribution piping. The system is owned and operated by the Town of Wiggins. The system serves about 190 households totaling 530 people. Commercial users include the school, Country Fare restaurant, and a number of businesses and light industries. The service area of the system presently includes the area within the corporate limits of the Town. The water system and the service area are shown on Figure 3.



<p>ARIX A Division of Vistar, Inc.</p> <p>Engineers, Architects, Surveyors 1800 E. 1st Avenue, Suite 200 Colorado Springs, CO 80902 Phone: 719.575.1111 Fax: 719.575.1112 www.arix.com</p> <p>FOXfire Community Planning & Development 13201 E. 20th St. Suite 100 Denver, CO 80231</p>	<p>APCC Corporation Engineers, Architects, Surveyors 1800 E. 1st Avenue, Suite 200 Colorado Springs, CO 80902 Phone: 719.575.1111 Fax: 719.575.1112 www.arix.com</p>	<p>Sheef No.</p>
	<p>File No.</p>	<p>Scale: 0 30'</p>
<p>WATER SYSTEM</p>		
<p>WIGGINS, COLORADO INCORPORATED AREA</p>		

Figure 3

Water Supply

Water is supplied by two wells which are located one-half mile south of town. The well site is owned by the State of Colorado which charges an annual fee for the use of the property and water.

The source of the groundwater is the Bijou Kiowa Alluvium. The quality of the water is good and meets all state standards. The level of the total dissolved solids in the water is moderate at 869 ppm and the level of nitrates is acceptable at 4.8 ppm.

The wells are about 190 feet in depth and have 14-inch casings. The pumps are set at a depth of about 170 feet. The pump for the north well was installed in 1984 and consists of a 50-horsepower variable speed Peerless hydroconstant drive with a Worthington vertical turbine five-stage pump. The north pump delivers 500 gallons per minute (gpm) at 280 feet total dynamic head at 1,680 rpm. The pump for the south well was installed in 1981 and consists of a 40-horsepower constant speed drive with a Worthington vertical turbine four-stage pump. The south pump delivers 450 gpm at 280 feet total dynamic head to 1,770 rpm. Both pumps have a six-inch discharge and are housed in a cinder block building. The pumps discharge to a 5,000-gallon steel pressure tank. Treatment is provided by gas chlorination.

The wells are permitted for a combined annual appropriation of 330 acre feet. The current demand on the system nearly equals the appropriation. The average annual usage for the system during the years 1987, 1988 and 1989 was 271 acre feet, which is 82% of the permitted appropriation. Standard engineering practice indicates that new sources should be identified for a system that is at 80% of capacity. New source alternatives are discussed below under "Improvement Alternatives."

Demands

The average annual water demand is 88.2 million gallons or 271 acre feet. The average per capita demands were estimated for the population of 530 using monthly meter records for the years 1987, 1988, and 1989. The average demands are listed below.

Table 16
Average Water Demand

	<u>Gallons Per</u> <u>Day (GPD)</u>	<u>Gallons Per</u> <u>Day Per</u> <u>Capita (GPDC)</u>
Average day demand (entire year)	241,700	456
Average day (winter)	84,400	159
Average day (summer)	358,200	676
Maximum day	600,000	1,132

Subtracting the average day winter rate from the average day summer rate indicates that the average summer irrigation demand is about 517 GPDC, which is 76% of the total summer demand. This irrigation demand is excessive and increases the yearly average to 456 GPDC, which is well above the average rate of about 300 GPDC for small communities similar to Wiggins.

The maximum day demand recorded in the summer is about 600,000 gallons, or 1,132 GPDC. The pumping rate for the maximum day is 417 GPM, which is close to the maximum that can be delivered by either of the existing pumps. The maximum day system demand should not exceed the capacity of either pump in a duplex system since one of the pumps may be off-line for maintenance. A new water source with adequate pumping facilities would help to alleviate this problem.

Distribution System

The distribution system is comprised of single eight-inch and six-inch feeds which extend to the main sections of town. A grid is formed by four-inch lines which branch down most of the streets. The system is operated to normally provide a pressure of 56 pounds per square inch (psi).

The distribution system includes about 5,600 feet of eight-inch pipe, 4,000 feet of six-inch pipe, 17,000 feet of four-inch pipe, an 3,000 feet or more of two-inch pipe. All water mains four inches and larger in size are cast iron. In general, the water

mains are located in the streets and the sewer lines are located in the alleys.

The system is supplied by one-half mile of eight-inch main from the wells south of town. This long supply line limits the ability of the system to provide adequate pressure during peak demands. The town is divided into a north section and south section by the Burlington Northern Railroad (BNRR). The north section of town is supplied by a single eight-inch main across the BNRR tracks. This single feed further limits the ability of the system to meet peak demands in the north part of town.

Hydrant testing indicated that the system can provide fire flows of about 500-600 gpm to the hydrants located along the eight-inch and six-inch water mains. Residual system pressure during the fire flows can be expected to range from about 10 to 20 psi. Adequate fire flow cannot be delivered to locations served by four-inch mains.

Computer Simulation of the Water System

The Kentucky Pipe Network Analysis Program (KPIPE) was used to evaluate the system's ability to meet peak demands and fire flows. The model uses information on supply, demand, ground elevation, pipe size, length and roughness to predict the pressures available at locations throughout the system. The model was calibrated for existing conditions using three hydrant tests.

The results of the modeling indicate that the system pressures range from 29 psi to 40 psi during the peak hour summer demand. These pressures may be considered marginal for the peak demand situation. The results of simulating fire flows throughout the system are listed below.

- 1) 750 gpm fire near the Main Street commercial area south of BNRR -- Pressures ranged from 9 psi to 21 psi.
- 2) 500 gpm fire in the residential area at the east end of Third Avenue -- Pressures ranged from 10 psi to 34 psi.

- 3) 500 gpm fire in the residential area at the intersection of Curry and Fourth Avenue -- Negative pressures were indicated for the four-inch mains supplying the hydrant. All other system pressures ranged from 22 psi to 34 psi. The negative pressures indicate the four-inch mains cannot supply adequate fire flow.
- 4) 750 gpm fire in the commercial area of the north section of town at the intersection of Central and Jasper -- The model results showed negative pressures throughout the north section of town, indicating that the system cannot deliver an adequate fire flow.

The model results were analyzed to determine the weak points in the system. The main problems appeared to be the long supply line from the wells, the single eight-inch feed to the north section of town, and the lack of six-inch or eight-inch mains to strengthen the distribution grid. Methods to improve the system are discussed in the following section.

Improvement Alternatives

The first improvement priority for the Town is to acquire an additional source of water. Currently, the Town uses a yearly average of 271 acre feet, which is 82% of its permitted appropriation. The water demand for the year 2010 based on the current usage and a future population of 748 people is 382 acre feet. An additional source of 150 acre feet should be secured by the Town to ensure adequate water supply for the next 20 years. Future water demands are summarized below:

**Table 17
Future Water Demands**

	<u>Gallons Per Day (GPD)</u>	<u>Gallons Per Day Per Capita (GPDC)</u>
Average Day	341,100	456
Maximum Day (2.48 x Avg. Day)	846,700	1,132
Peak Hour (4.5 x Avg. Day)	1,535,000	2,052

The following alternatives have been considered by the Town Council:

- 1) Construct a new well and pumping facilities on the Town's property southwest of town. Construct a new six-inch pump line to connect to the Town's system. Construct new controls for the existing pump. The pumping rate of the well should be a minimum of 250 gpm. This pumping rate will allow the new well, in combination with one of the Town's existing wells, to meet the future maximum day demand of 846,700 gallons per day.
- 2) Obtain supplemental water from the Morgan County Quality Water District (MCQWD). A 16-inch MCQWD water main extends from west to east through the central part of Wiggins on U.S. Highway 6. Connection to the MCQWD would require a meter, pressure reducing valve, and a blending tank.
- 3) Turn the water system over to the MCQWD.

The best alternative appears to be to drill a new well on the Town's property. This alternative will allow the Town to retain complete control of the water system. Control is critical for the Town to meet future service requirements and to plan for future growth. This alternative also allows the Town to gain the benefits from capital expenditures on the system.

The second improvement priority is to upgrade the distribution system to provide adequate pressure during peak demands and fire flows. Various improvement alternatives were evaluated using the KPIPE Model, and the results and estimated costs were presented to representatives of the Town Council.

The best alternative includes the following items which are shown in Figure 3.

- 1) Construct a 500,000-gallon water storage tank on the south side of the BNRR at the intersection of High Street and Corona. The location of the tank in the central part of town will eliminate the pressure loss caused by the long supply lines from the wells. A new four-inch supply line will be required to connect to the eight-inch line from the wells.

- 2) Construct new booster pumps to supply water from the tank to the town system. The pumps should be designed to maintain a system pressure of 65 psi and meet the future peak hour demand of 1,070 gpm. The pumps should include two 550 gpm hydroconstant pumps to alternate in operation and an 1,100 gpm horizontal split case pump to provide a backup.
- 3) Construct a new 10-inch supply line to the north side of town across the BNRR tracks. The supply line will be located adjacent to the tank to provide the maximum benefit to the north part of the system.
- 4) Construct new eight-inch water mains to strengthen the grid of the distribution system. The new mains include about 6,000 feet of eight-inch pipe located along the east and south side of town. The new mains will allow the water system to be extended to the west, south or east to the primary development areas.

Computer modeling of the improved system indicates that, with the pumps set to maintain 65 psi, the system will deliver a 2,000 gpm fireflow to any of the four locations described in the Computer Simulation section above. System pressures will range from 30 to 50 psi.

C. Wastewater System

General

The wastewater system was constructed in 1969 and consists of a collection system of eight-inch and 10-inch vitrified clay pipe, and a treatment plant which includes an oxidation ditch, a clarifier, and three evaporation ponds. The system is shown in Figure 4 and is owned and operated by the Town of Wiggins.

Service Area

The service area of the system presently includes the area within the corporate boundary of the Town. The service area can be expanded by extending the gravity collection system to the limits imposed by the surrounding topography. Figure 4 illustrates the

maximum area that can be served by a gravity system. This service area is bounded on the north side by I-76 and on the west side by Kiowa Creek. The service area extends south to include the Town property at the former Bruntz Farm and extends east to a ridge which is located near the east boundary of the Town. The service area can be expanded outside these topographic limits by constructing lift stations.

Treatment System

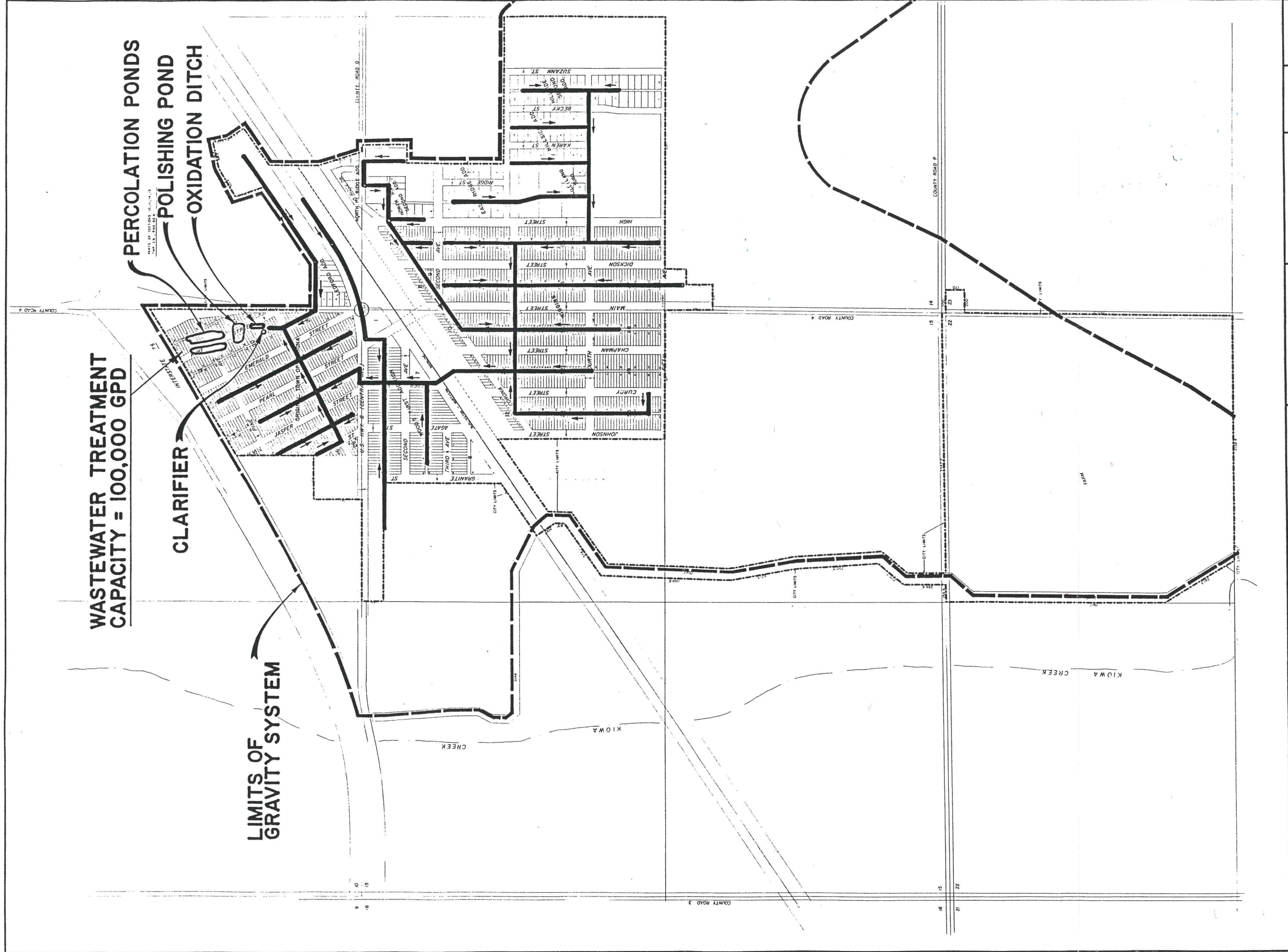
The Town's treatment plant is located at the north end of town adjacent to I-76. The plant was designed for a population equivalent of 1,000. This roughly translates to a capacity of about 100,000 gallons per day. Currently, the plant serves a population of about 530 which is roughly 53,000 gallons per day. Using these figures, the system is operating at about 53% capacity during average conditions. Actual flow data is not available since the system is not metered.

The primary component of the system is an oxidation ditch. The ditch is oval in shape, 10 feet wide and 300 feet in length. Aeration and circulation are provided by a paddle wheel unit.

The oxidation ditch discharges by gravity to a single clarifier. The concrete clarifier tank is located below grade and is 20 feet in diameter and 20 feet deep. The clarifier discharges to a polishing pond through an eight-inch gravity line. Sludge may be pumped from the clarifier to drying beds using a 100-gpm air lift pump. The polishing pond is rectangular in shape with dimensions of 100 feet by 200 feet and a depth of 20 feet. Two evaporation ponds are located on the north side of the polishing ponds. The evaporation ponds are about 60 feet wide and 350 feet long.

Collection System

The collection system consists of about 4,000 feet of 10-inch vitrified clay pipe and 25,000 feet of eight-inch vitrified clay pipe. The 10-inch pipe forms a trunk line which extends from the central portion of the south part of town across the BNRR to the treatment plant. The eight-inch lines branch down each of the alleys.



WIGGINS, COLORADO INCORPORATED AREA	LEGEND — SEWER MAIN - - - LIMITS OF GRAVITY SYSTEM	ARIX <small>ARC Corporation Engineers Architects Assessors 100 North Lincoln Denver, Colorado 80201 303.733.3500</small> Foxfire <small>COMMUNITY PLANNING & DEVELOPMENT 13021 853 8144</small>	Sheet No.
			File No.

Figure 4

The collection system is reported to be in good condition. Maintenance of the lines includes periodic jetting. Infiltration is not a problem since the depth to groundwater is about 100 feet. Surface inflow is reported to be minimal.

Wastewater System Improvements

The treatment plant currently occupies about 50% of the available site at the north end of town. The plant could easily be doubled in capacity by adding a second oxidation ditch and clarifier. Additional evaporation ponds may also be required. These improvements would have the benefit of providing a duplex system in which half the system can continue operating while the other half is shut down for maintenance.

A flow meter should be constructed at the treatment plant. Metering is essential for evaluation of the existing system and design of improvements. A parshall flume with a recording gauge should be constructed upstream of the grit chamber. Daily flow records should be maintained.

The collection system should be televised to evaluate the condition of the existing lines. The work should be performed during the irrigating season to aid in identifying infiltration. Televising the lines will pinpoint root penetration, deteriorated pipes, and blockages.

D. Electric Power

Electric power is provided by the Morgan County Rural Electric Association (REA). The REA provides power to a large portion of Morgan County. The existing facilities in the Town of Wiggins are adequate for current requirements and can be expanded to meet future needs.

E. Natural Gas

Natural gas is provided by the Public Service Company. The primary feed is a two-inch high pressure line which extends north from Roundup along County Road 4 then east along County Road P to County Road 3 (Main Street) and north along Main Street into the Town of

Wiggins. Within the Town, service is provided by three-inch trunk lines along Main Street, Third Avenue, and Jasper, with 1½-inch branch lines along most of the streets.

A two-inch line provides service east along Corona Avenue to Highway 52 and north along Highway 52 to the I-76/34 interchange area. Service is also provided north of Wiggins by a two-inch line which runs north along Main Street, crosses I-76, and extends to Highway 34. The line continues east along 34 to the I-76/34 interchange area. The existing facilities serving the area are adequate for current requirements and can be expanded to meet future needs.

F. Drainage

Wiggins is located between Kiowa Creek and Bijou Creek, which are both tributary to the South Platte River. Floodplains for the two creeks within the planning area are shown on the Environmental Constraints Map (Figure 5). As can be seen, only a small portion of the Bijou Creek floodplain is present on the eastern edge of the planning area. The Kiowa Creek floodplain covers a larger portion of the planning area to the west. Most of the Town of Wiggins is about two to five feet below the banks of Kiowa Creek, and the Town was damaged by floods in 1935 and 1973. However, construction of a levee along the east side of Kiowa Creek in 1987 and 1988 has removed the Town from the 100-year floodplain. A small open space area within the Town south of the Burlington Northern Railroad tracks is subject to ponding during a 100-year storm event.

Storm drainage within the Town currently consists of a gravity system composed of open channels (roadside ditches) with culverts at street crossings. Runoff from the south and east portions of Wiggins is conveyed to three large culverts at the Burlington Northern Railroad north of Corona Avenue and Curry Street. The culverts discharge to a depression area situated north of the railroad right-of-way. The discharge is then conveyed north by open channels to I-76 and then east along I-76 past the north end of the sewage treatment plant away from the Town. The flat topography of the Town and lack of relief result in poor drainage in many areas.

As part of the comprehensive plan, ARIX Corporation was commissioned to perform an internal drainage study and produce a master plan for storm drainage for Wiggins. The objectives of the study were to inventory and evaluate the existing system, identify deficiencies, and recommend a phased program for improvements. The study, entitled Storm Drainage Master Plan, Town of Wiggins, Colorado, has identified several instances where existing facilities are inadequate, based on results of computer stormwater modeling. Also, the existing ditch and culvert system is described as requiring excessive maintenance due to debris clogging. Replacement with curb and gutter is recommended as funds permit.

As a result of their analysis and evaluation, ARIX has developed a phased plan for drainage system improvements that is designed to improve the highly visible areas of the Town and the outfall system first. Cost estimates have been provided for each of the phases, which include resetting of street grades and installation of curbs, gutters, and paving. The total cost of the improvements is estimated at \$894,000. Much more detailed information can be found in the master drainage plan report, including guidelines for the design and construction of the improvements.

G. Public Services, Utilities, and Facilities Plan

As Wiggins grows, a full complement of public services will be needed. These will be implemented by the Town and the various utility providers/districts that exist in the planning area. As part of the planning project, a drainage plan was developed by ARIX Corporation for the developed portions of the community. Other utility improvement recommendations were made, such as adding a new water tank and additional water lines to improve water distribution and pressure in the Town.

Goal: Provide an adequate level of general governmental services, public facilities, and utilities to Town residents. Maintain a balance between community facilities and user population.

Objectives:

1. Make effective use of revenues and continually explore new sources of revenues to fund public facilities and services.
2. Maintain or improve the current level of services.
3. Facilitate orderly and compatible growth within Wiggins' Planning Area.
4. The Town shall work cooperatively with developers and utility providers to locate development in areas that can be conveniently and economically served by public and private utilities.

Policies:

- PSFU-1. The Town shall prioritize capital improvements needs as outlined in this Plan and develop a capital improvements program.
- PSFU-2. Wiggins may require analysis of the fiscal impact of new development upon public services, facilities, and utilities during the development review process.
- PSFU-3. The availability and/or capability of extension of existing services shall be used as criteria in determining the location of land uses within the planning area.
- PSFU-4. New developments shall pay for the construction of utilities within the project boundaries on the existing systems.
- PSFU-5. Implement the Drainage Plan on a phased basis as outlined in the Plan.

V. ENVIRONMENTAL RESOURCES AND HAZARDS

A. Soils/Topography

Soils present in the Wiggins Planning Area were identified and analyzed using the Soil Survey of Morgan County, Colorado, produced by the U.S.D.A. Soil Conservation Service in cooperation with the Colorado Agricultural Experiment Station and published in 1968. A "soil association" as mapped on the general soil map of the county consists of a landscape or geographic area that has a distinctive proportional pattern of different soils, relief, and drainage. It generally consists of one or more major soils and at least one minor soil and is named for the major soils.

Two primary soil associations are present within the planning area. The Valentine-Truckton association, mainly in the central southeast portion of the planning area, consists of very sandy soils of the level to hilly uplands. These soils are used primarily for grazing. The Bijou-Bresser association, covering most of the remainder of the planning area, consists of noncalcareous (non-chalky) sandy soils of the terraces. Most of these soils are used for irrigated cropland. Some areas are dry farmed, but most are not well suited for this because the sandy surface soils blow easily. A smaller association, the Bankard-Wann, is present on the eastern edge of the planning area. These are sandy overflow soils of river bottoms and are associated with the Bijou Creek floodplain. Most of these soils are used for grazing, with some irrigated cultivation in higher areas. In general, the soils of the northeastern plains of Colorado, including those in the planning area, have developed under a temperate semiarid climate. Native vegetation consists primarily of short grasses intermingled with low-growing shrubs. Because of these conditions the soils have only moderate amounts of organic matter.

Soils in the planning area were mapped and ranked according to their constraints for urban development in an area as follows: from County Road 3 on the west to County Road 6 on the east, and from County Road O on the south to 1/2 mile north of County Road R/U.S. 34 on the north. Using data for various soil types, areas were identified that had no soil constraints and also those with

moderate to severe soil limitations. Eight specific mapping units (soil types) comprised those areas with limitations, primarily because of either a susceptibility to flooding, high shrink-swell characteristics, poor suitability for septic systems, or erosiveness and poor bearing capability, features that could limit the suitability for urban development. It should be noted that the sandy nature of the soils in the planning area makes many areas unstable and susceptible to soil blowing and water erosion. Careful management practices are necessary to reduce these hazards.

These soil type rankings are very general and are intended to serve merely as a warning sign when development is contemplated in a particular area. In those areas designated "moderate" to "severe," special attention should be paid to the hazard or construction limitation present and to mitigation measures proposed by a prospective developer. The rankings do not indicate that development should not take place. Soil testing should be required by the Town for specific development proposals and be reviewed by a competent geotechnical engineer, particularly if septic systems are involved.

Topography in the planning area for the most part can be described as gently rolling, with Kiowa and Bijou Creeks creating floodplains, terraces, and uplands. Elevation varies from 4,519' along Highway 52 on the north boundary of the planning area to 4,627' at a high point near the abandoned McCarthy Reservoir on the southern edge. The official elevation for Wiggins is 4,540'. The land generally rises as one moves south of the Town and drops in elevation to the east as one approaches Bijou Creek. Slopes are generally less than 5% through most of the planning area, except for some sandhill locations in the south and east and along the Bijou Creek floodplain.

B. Climate

Wiggins experiences a semi-arid continental climate typical of the eastern plains of Colorado. It is characterized by low relative humidity, relatively low precipitation and abundant sunshine, a factor that makes Wiggins an excellent location for the application of solar technology. Average annual precipitation is 12 inches,

with most of this (80%) falling as rain from April through September during the growing season, usually in the form of thunderstorms. The location on the leeward side of the Rocky Mountains contributes to a "rain shadow" effect. Prevailing winds are from the north or northwest in winter and from the south or southeast in summer. Evaporation rates are high.

Summers are warm with frequent hot days; winters are moderately cold, with occasional protracted cold spells when arctic air masses move in from the north or northwest. A large daily range in temperatures is common.

C. Wildlife

The absence of surface water in significant amounts in the planning area has an effect in reducing some wildlife species present, particularly waterfowl (other than geese). Large raptors (hawks, eagles) are present in the planning area, and there are smaller raptors such as kestrels and prairie falcons that primarily feed on other birds.

Kiowa Creek is used as a movement corridor by deer. The over-winter population is about 20 animals. There is a deer kill area about one mile west of the I-76/County Road 3 interchange. A far larger deer herd is found to the east in the Bijou Creek drainage. There are also some pheasant habitat areas along Kiowa Creek, but most of the pheasants have been driven out by skunks. Red fox have been reported in locations to the south and west of the Town.

Geese in fairly large numbers are present during the winter, typically arriving around October and staying to mid- to late February. The geese come to feed in harvested corn fields. These wintering areas are primarily to the north and west of the Town.

Use of fertilizers and pesticides can have serious effects upon vegetation and wildlife, causing a reduction in cover, systemic poisoning, and contamination of water and food supplies. Farming practices also affect wildlife. Present tillage methods have reduced pheasant habitat in the planning area, for example.

D. Water Resources and Hazards

Hydrology and Floodplains

The major hydrologic feature in the planning area is Kiowa Creek, an intermittent tributary of the South Platte River, that is located about 1/4 mile west of Wiggins' town limits. The creek runs in a general north-south direction past the Town. It originates in the Black Forest area of El Paso County and travels northward through Elbert County, Adams County, and Weld County prior to traversing Morgan County on its way to the South Platte River. This river is about seven miles north of Wiggins.

Most of the Town of Wiggins is two to five feet below the elevation of the banks of Kiowa Creek, and flood waters from the creek flow directly into the Town. Wiggins has been inundated by major floods from Kiowa Creek in 1935 and 1973. In 1987 and 1988 a 3-mile levee system was constructed along the east overbank of the Kiowa Creek floodplain. The levee and associated closure structures provide protection from a 100-year flood event and have taken the Town out of the 100-year floodplain. North of Interstate 76 the Kiowa Creek floodplain extends above the Town beyond County Road 4. West of the levee system the floodplain extends past County Road 3. (See the Environmental Constraints Map, Figure 5).

A small portion of the eastern edge of the planning area lies within the 100-year floodplain of Bijou Creek. This floodplain does not have a direct effect upon the Town. South of Wiggins about one mile the dike for the now-abandoned McCarthy Reservoir remains. This reservoir was once part of the Nile irrigation system that operated into the 1940s. There are no observed significant wetland locations within the planning area.

Water Quality

The Town of Wiggins draws its water supply from wells that tap into ground water aquifers. A more in-depth discussion of the Town's water system can be found in the "utilities" section of the Plan.

Residents in the unincorporated areas outside Wiggins are usually on wells or may be served by the Quality Water District. Ground

water contamination can be a problem. Potential pollution sources include individual septic systems and run-off of farm chemicals and fertilizer.

E. Mineral Resources/Extraction

Although there are numerous sand and gravel deposits in Morgan County, particularly along the South Platte River bottoms, there are no significant aggregate resource locations within Wiggins' planning area. As for oil and gas resources, there are no producing wells in the planning area. There are several dry wells scattered throughout the planning area; the closest to Wiggins are located northeast of the Town in Section 11.

F. Geology

Wiggins is located in the Colorado Piedmont section of the Great Plains physiographic province, in a part known as the High Plains. The geologic area is known as the Denver Basin. The underlying bedrock in the area consists primarily of two groups of sediments: poorly consolidated rock composed of sand, gravel, and clay called Tertiary gravel and layered sedimentary rock many thousands of feet thick known as the Pierre Shale, deposited 70-80 million years ago.

Surficial deposits in the Wiggins Planning Area are made up of gravels and alluviums (associated with Kiowa and Bijou Creeks) and eolian (wind-blown) deposits of dune sand, silt, and loess. Sand hills to the south of the planning area are one-time dunes that are now stabilized by vegetation and, in some more recent "blowout" areas, by old automobile tires.

There are no geologic hazards of any consequence in the planning area. Occasional small landslides may occur near streams as flood waters undercut stream banks. There is little if any subsidence, either natural or man-made, and seismic activity in the area is very low.

G. Vegetation/Ecosystems

The Wiggins Planning Area is located in what is known as the Upper Sonoran-Plains Group life zone, dominated by shortgrass prairie. This plains grassland ecosystem was once dominated by a mixture of blue grama and buffalo-grass. However, much of the native grassland vegetation in the area has been depleted by farming and grazing. Shortgrass species have been replaced by brush and weeds in many areas, but the native species have not been completely eliminated. Overgrazing is common, and in disturbed areas blue grama is no longer dominant. Wind erosion often accompanies overgrazing. The major shrubs are rabbit brush, saltbush and sand sagebrush. Various types of cacti are also present. Stands of cottonwoods and willows are found along permanent streams.

In the southern portions of the planning area there are sandhill locations where vegetation differs markedly from the surrounding prairie, particularly where the sand is unstable. Grass species found here include sandhill muhly, blowout grass, red three-awn, sand bluestem, and western wheatgrass. The dominant shrub is sand sagebrush. Yucca is very common and widespread.

In addition to the naturally occurring vegetative communities mentioned above, there are the agricultural crops produced by cultivation. The types of vegetation consist primarily of irrigated crops, cultivated hay crops and tame grass pastures. Principal irrigated crops include corn, alfalfa, sugar beets, and dry beans. The major nonirrigated crop of economic significance is winter wheat.

H. Environmental Constraints Map

The Environmental Constraints Map (Figure 5) summarizes some of the principal factors that can have significant impacts on land development around Wiggins such as floodplains, wildlife corridors, and potential soil constraint areas. Land use allocations, routes for utility extensions, future road alignments, trail systems, and storm drainage systems are especially affected by these planning influences. This is not to suggest that no development can or should take place in areas affected by one or more of these environmental constraints. However, potential developers should be

aware that the Town may require additional studies, special engineering practices, or mitigative action before development can proceed in these areas.

I. Environmental Resources and Hazards Plan

Goal: Unique or distinctive natural features and systems, critical wildlife habitats, and unique or critical environmental resources should be conserved and preserved in a manner that assures their protection from adverse impacts and which is consistent with sound conservation practices.

Goal: Community growth should respect and incorporate existing environmental constraints and opportunities to assure that new development and redevelopment will exist in harmony with the area's natural and manmade environment and that the natural environment is preserved and enhanced.

Objectives:

1. Practice sound land use planning that protects development from environmental hazards; promotes maximum compatibility between land uses; and provides for the conservation of water and energy and the protection of air quality through efficient land use relationships and allocations.
2. Preserve significant wildlife habitat areas.
3. Coordinate and cooperate with County, State, and Federal officials and agencies having responsibility for assessing environmental impacts of land development proposals.
4. Maintain and preserve scenic vistas and view corridors to the greatest extent possible as development occurs.
5. Preserve prime agricultural land to the greatest extent possible.
6. Strive to improve water quality.

Policies:

- ENV-1. The Environmental Constraints Map designates areas of potential land use conflict and possible physical constraints to development. These designations should be reviewed periodically as new information is received and appropriate amendments are made to the Comprehensive Plan.
- ENV-2. Special studies, special engineering practices, and/or mitigative actions may be required before development can proceed in areas of high environmental impact as identified on the Environmental Constraints Map. Development shall not be permitted in floodplain areas without compliance with the Town's floodplain regulations.
- ENV-3. Development shall not be recommended in areas where soil problems, such as erosion, shrink-swell potential, and other possible building limitations, are present unless geotechnical study can demonstrate adequate methods and techniques to mitigate these problems during and after construction. Soil conservation techniques to minimize soil erosion and sedimentation shall be encouraged in the design and development of land uses.
- ENV-4. Land uses adjacent to plant and animal resources and habitat areas, particularly in the Kiowa Creek floodplain, will be carefully reviewed to minimize the effect of development on the floodplain and encourage habitat preservation.
- ENV-5. When appropriate, high points that offer scenic vistas should be preserved as open areas. New development or redevelopment shall be reviewed as to visual impact and maintenance of view corridors.
- ENV-6. Prime agriculture lands should be catalogued in the planning area, using guidelines of the U.S. Department of Agriculture. Developers will be encouraged to locate residential, commercial, and industrial uses in areas

that minimize the removal of prime agricultural land from production.

ENV-7. The Town shall cooperate in efforts to educate citizens about threats to water quality, particularly pollution from septic tank use and run-off of agricultural chemicals, and steps that can be taken to minimize groundwater contamination.



TOWN OF WIGGINS PLANNING AREA	LEGEND		Wildlife Corridor 	 Foxfire Community Planning & Development 13031 893 8144	Environmental Constraints Map	 Sheet No.
	Floodplain Potential Soil Limitation Area					Scale:

JACK DOCK
 Professional Engineer
 Registered Surveyor
 442 West Avenue
 P.O. Box 1220
 Washburn

VI. LAND USE PLANNING

A. Existing Land Use

Planning Area

All of the planning area outside Wiggins' town boundary is in unincorporated Morgan County. This land is devoted primarily to agricultural uses, generally irrigated and dry land crop farming and livestock grazing (see Figure 6). Approximately 5,500 acres are irrigated farm land and 900 acres are dryland farm land in the planning area. Farms, consisting of individual houses or mobile homes and associated machinery sheds or storage buildings, generally string out along the section line county roads, with section interiors primarily devoted to agriculture production. Individual houses can be found at mid-section and at section road intersections on non-irrigated land that remains because the irrigation circles leave approximately 8 acres per each quarter section corner unirrigated. These areas have been subdivided over the years through the subdivision exemption procedure at the County, providing numerous home sites.

A large dairy farm operation exists near the intersection of I-76 and County Road 4, which is the extension of Main Street in Wiggins. Smaller feedlot operations exist both north and south of the community, but these are few in number.

Industrial agribusiness warehouse uses and some equipment assemblage and repair uses exist along U.S. Highway 6 and the Burlington Northern Railroad east of Wiggins near Colorado Highway 52. Some of these warehousing operations are related to sorting and distributing agricultural commodities. The county maintains a solid waste transfer station in the Wiggins Industrial Park, where most of the other industrial/agribusiness uses are located.

The intersection of U.S. 6, I-76, and Highways 52 and 34 is not heavily developed, but it does contain a variety of uses -- both commercial and industrial. Restaurants and gas stations are located both on the north and south sides of I-76. Other commercial/industrial uses existing south of the interstate include

a truck repair business, a propane storage and supply business, and a bar.

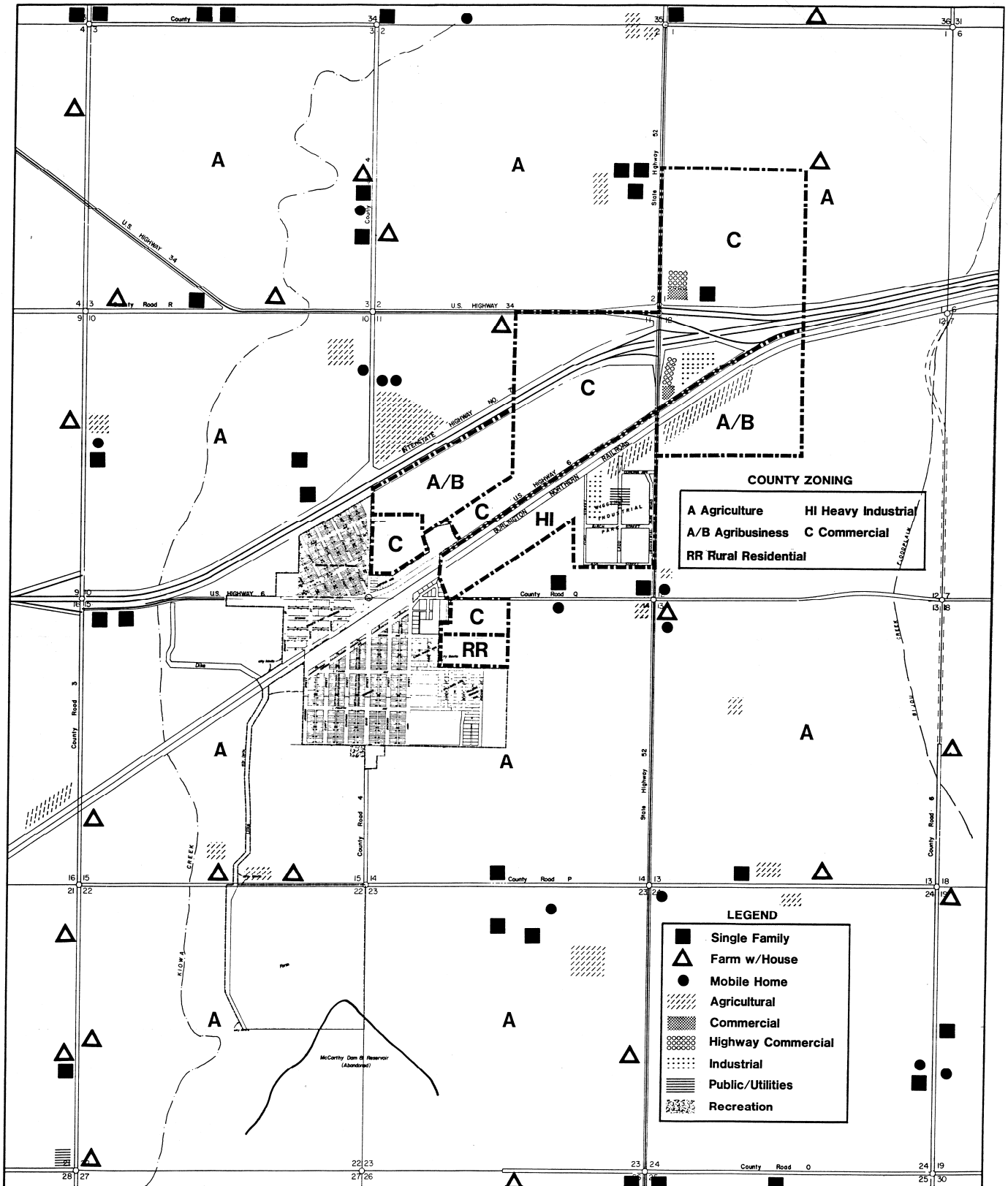
Wiggins lies in a special planning area for Morgan County designated the "Planning Corridor." The Planning Corridor stretches midway through the county for approximately 31 miles from Wiggins eastward to Hillrose. From Interstate 76, the corridor extends northward approximately seven miles, and southward approximately four miles. It encompasses just less than 350 square miles.

Morgan County's rural communities and major activity centers are all located within the Planning Corridor, with the exception of the community of Hoyt. The rural communities are identified as Orchard, Goodrich, Weldona, Snyder, Hillrose, and Wayward Winds, located at the I-76/U.S. 34 interchange. All of these communities are located on the Union Pacific/Burlington Northern train line which parallels the South Platte River.

The county designates three "major activity centers" in their Comprehensive Plan, and they are identified from smallest to largest as the Wiggins area, Brush area, and Fort Morgan/Log Lane area. These activity centers are all located along Interstate 76.

The dominant man-made features in the Planning Corridor are I-76 and the massive Pawnee Power Plant which can be seen from miles away. It is located between Brush and Fort Morgan, approximately three miles south of U.S. 34/6. Probably just as prominent in the corridor is the extensive wildlife refuge areas which follow the South Platte River. Both public and private refuges exist here.

To the south of Wiggins the abandoned McCarthy Reservoir is the most predominant man-made feature other than Interstate 76. This reservoir was originally intended as an irrigation reservoir; however, the project was never a financial success. Empire and Jackson Lake reservoirs exist approximately four miles and nine miles, respectively, from Wiggins in a northwest direction. The South Platte River is approximately seven miles north of Wiggins.



COUNTY ZONING

A Agriculture	HI Heavy Industrial
A/B Agribusiness	C Commercial
RR Rural Residential	

LEGEND

■	Single Family
△	Farm w/House
●	Mobile Home
▨	Agricultural
▩	Commercial
▧	Highway Commercial
▦	Industrial
▤	Public/Utilities
▥	Recreation

**TOWN OF WIGGINS
PLANNING AREA**

**Existing Land Use and Zoning --
Planning Area**

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Professional Engineers, Architects, Planners
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Wiggins, Colorado 80491
303.789.2100

Foxfire
Community Planners & Development
1000 889 9144

Scale: 0 500

Sheer No. **Figure 6**
File No.

Town of Wiggins

Wiggins is an incorporated town. Its central focus is the Burlington Northern rail line which runs from the southwest to the northeast. Interstate 76 parallels this rail line to the north and serves as the northern boundary for the Town (see Figure 7). Wiggins is primarily an agricultural/agribusiness based community.

Wiggins contains roughly 460 acres of land within its current corporate boundaries. About one-third of this land is vacant. This high percentage is due to a recent annexation which includes a 160-acre farm. This land was annexed to provide a water source for the Town.

In terms of housing, Wiggins' housing stock is generally in good shape, consisting of wood frame and brick homes and mobile homes. The Town has very strong requirements for mobile home developments in its zoning ordinance in an attempt to preserve its remaining single-family areas.

The railroad line runs east/west and splits the Town into north and south portions (about one-third and two-thirds, respectively). U.S. Highway 6 parallels the rail line and is a main artery through the community. Main Street runs north and south and is actually a section line road (County Road 4). Its intersection with U.S. 6 creates a jog, with the offset being approximately 400 feet. Main Street contains the only crossing of the railroad in the community and it is at grade.

North of U.S. 6 the Town grid is oriented at a northwest/southeast angle. This area is the original Town of Corona townsite. The area consists primarily of residential uses with business and agribusiness uses located on either side of U.S. Highway 6. The housing stock in the north portion of the community is generally not in as good a shape as the southern portion. The majority of mobile homes in the community are located here, with both structures and yards in need of better up-keep and landscaping. Mobile home parks exist both in the Corona area and Wood's First Addition, just south of U.S. 6 and north of the railroad tracks. Very few single-family frame residences exist in Wood's Addition compared to the Corona area.

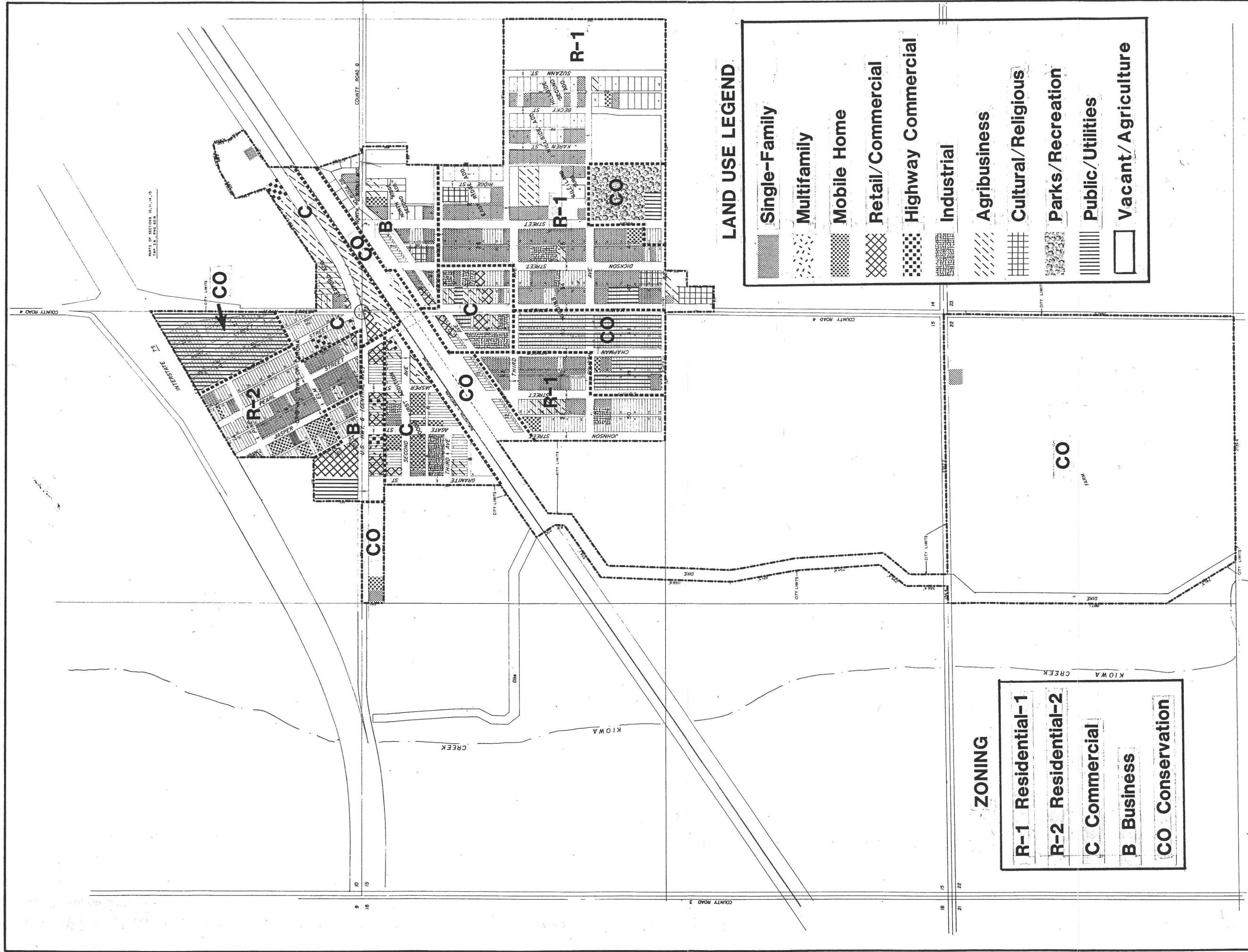
A commercial strip exists along U.S. 6 ranging from retail businesses west of Main Street to agribusinesses such as grain elevators and grain warehousing to the east. This strip contains a restaurant, bank, car wash, video store, grocery store, and an auto parts store plus the agribusiness uses previously mentioned. This road is busy and access to I-76 can be made in either direction.

Situated just east of Main Street and south of I-76 is the Town's sewer system treatment plant. East of the sewer plant is agricultural land. Main Street bridges I-76 as it continues north to become County Road 4. There are no on- or off-ramps to I-76 at the intersection. North of I-76 is predominantly agricultural production land.

South of the railroad tracks exists the major residential section of Wiggins and some commercial uses. Various subdivision annexations have been made over the years. Main Street consists primarily of agriculture-related businesses such as farm equipment repair, a hardware store, and a farm implement dealership. The Town Hall is located in this area as well. Continuing south on Main Street to the Town limits are residential uses, with the Wiggins Telephone Association facility on the east side of the street and the Wiggins School District facilities on the west side. The school district land area comprises four town blocks and is the predominant land use in this portion of the community. The elementary school and combined junior/senior high school are located here as well as associated administrative offices.

The rest of the southern portion consists of predominantly frame and some brick single-family houses. In general, this housing stock is well maintained, and newer subdivisions are located to the east of Main Street. There are some equipment storage and vehicle repair businesses interspersed in the residential areas. In general, these nonconforming uses are not too obtrusive in the neighborhoods and can be cleaned up as land transfers are made and the uses are abandoned.

The Town's main park is located at Fourth Avenue and High Street. Consisting of seven acres, this park is heavily used by the community, primarily for softball and picnicking.



**WIGGINS, COLORADO
INCORPORATED AREA**

**Existing Land Use & Zoning ---
Town of Wiggins**

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Figure 7

North Arrow

Scale: 1" = 300'

Sheet No. _____

File No. _____

B. Existing Zoning

Planning Area (County)

Zoning outside of the Town boundaries is controlled by Morgan County (see Figure 6). Most of the zoned land bordering the corporate boundaries of Wiggins is designated A - Agriculture. This zone is the primary agriculture production zone for the county. Approximately one and one-half sections (or an area over twice the size of Wiggins itself) to the northeast to Highway 52 bordering U.S. 6, the railroad, and I-76 are zoned a mixture of A/B - Agri-business, C - Commercial, and HI - Heavy Industrial. A pocket of C - Commercial and RR - Rural Residential land exists to the east of the community. The general zoning descriptions for these districts are as follows:

A - Agriculture: Primary agriculture production lands for livestock grazing, irrigated and dryland farming. This zone is used to provide for the economic base or primary industry for the county. This is the only zone in the county where feedlots may be allowed and only as a special use.

A/B - Agri-Business: Agricultural land areas permitted to combine a range of agricultural production and agri-business uses together. This zone occurs in close proximity to the towns and municipalities in the county.

RR - Rural Residential: This zone district allows for low density single-family residential uses on moderately sized lots located close to existing communities. The gross density limit in this district is four dwelling units per acre. No multifamily units are allowed.

C - Commercial: The commercial district is the primary business district in Morgan County and allows a wide variety of business uses. Its primary purpose is for wholesale and service-related commercial uses with minimal assembly or manufacturing activities.

HI - Heavy Industrial: Land areas reserved to be used primarily for manufacturing, assembly, and distribution of basic goods. This is the only district that may be over-zoned or mis-zoned for the uses currently existing in it in the Wiggins area.

In general, existing zoning in the county is advantageous to Wiggins since the logical direction for commercial, agri-business, and industrial growth is to the northeast of the community where there is rail and highway access.

There are no special review uses located in any of the county zones around Wiggins. There are also no residential subdivisions located in the planning area. There is one industrial subdivision to the west of Highway 52 and south of U.S. 6 in the HI zone district.

Town of Wiggins

There are seven zoning districts currently allowed in the Town. Only five of these districts have actual geographical boundaries (see Figure 7). The two allowed districts that are not shown on the official map are the I - Industrial zone and the MHP - the Mobile Home Park zone.

The general descriptions for the Town zoning districts are as follows:

I - Industrial: To provide adequate space for the development of a diversified industrial base which is compatible with the human and natural resources of the Wiggins area and in conformance with local, state, and federal environmental standards.

CO - Conservation: To provide open lands for public and private outdoor recreation, compatible public facilities, protection of natural areas, preservation of archeological and historical sites, production of minerals, production of food and fiber, protection of public health, welfare, and safety through the management of lands known to possess hazardous, social and/or environmental constraints, and to ensure the maintenance and improvement of the Town's aesthetic character.

B - Business: To provide adequate space for the development of attractive, centralized, people-oriented environments where retail enterprises will provide sales and services responding to the needs of the Town, tourists, and the surrounding agricultural community.

C - Commercial: To provide land for a range of commercial uses including wholesale businesses, services, and sales that will respond to both the needs of the Town and the surrounding agricultural community.

R-1 and R-2 Residential: Provide lands for residential areas that may include a diversity of housing types (i.e., apartments, duplexes, single-family dwellings, single-family mobile homes), ensuring individuals a reasonable choice in lifestyle, location, and value within a quiet, safe, and aesthetically pleasing environment.

MHP - Mobile Home Park: To provide land areas within the Town to be used for a mobile home park.

Zone district locations in Wiggins generally follow the existing land uses with several exceptions. Beginning in the north portion of the Town (north of the railroad tracks), a large area of R-2 residential zoned land exists between Agate and Emerald Streets. Consisting primarily of single-family residences and vacant land, a mobile home area comprises most of block 17, but it is not zoned MHP (mobile home park) even though it is similar to one. Business zoning exists along Central Avenue (U.S. 6) west of Main Street to the fire department and commercial zoning both east of Main Street to the east Town boundary as well as south of 1st Avenue west of Main Street. Conservation zoning exists around the sewer ponds and west along U.S. 6.

The Burlington Northern Railroad right-of-way is all zoned Conservation through the Town as well as blocks 11 and 12 south of this ROW. Both of these blocks are vacant. Conservation zoning also exists on the blocks where school facilities are located and the Town park area. Approximately three nonconforming residences exist in the Conservation Zone that surround the school district facilities.

Commercial zoning exists on blocks 10, 24 and 25 south of the railroad tracks. This zone generally outlines the existing uses found on these blocks.

Business zoning surrounds blocks 6, 7, 8, 9 and a large area being platted for single-family residences along Corona Avenue (which turns into County Road Q). This area, except for the western portion including blocks 8 and 9, is not zoned correctly in regard to existing uses and new uses being developed, which are all single-family residential. Rezoning of this area needs to be considered.

The remainder of the southern portion of Wiggins is zoned R-1 Residential. Approximately six industrial and equipment storage uses exist in this zone as nonconforming uses. These are scattered throughout the zone. About one-half of this zone district is vacant land.

In summary, the existing zoning in Wiggins reflects fairly well existing and potential future land uses, except for the few areas mentioned above. The fairly significant amount of vacant zoned property within the Town boundaries provides an ample supply of land for residential, commercial, and industrial expansion. For economic development and strategic reasons, however, the Town may wish to annex additional parcels within the planning area. Targeted areas for annexation are presented later in this section in the Annexation Plan.

Development Code and Planning Administration Recommendations

Completion of a new comprehensive plan usually triggers a review of the development codes -- zoning and subdivision regulations in particular -- in a community. The Town of Wiggins needs to update its regulations to conform to the policies of this Plan and to include numerous changes in Colorado State Law relating to planning, zoning, subdivision, and annexation. The following is a list of preliminary suggestions that would improve the current development codes.

Subdivision (no regulations exist)

1. Adopt a set of subdivision regulations tailored to the needs of Wiggins.

Annexation

1. Develop a set of annexation criteria consistent with the annexation plan.

Zoning (Revise and Update)

1. Rewrite each zone district use list to conform to the intent of the Comprehensive Plan.
2. Develop a set of conditional uses for each zone district that are similar to the uses-by-right but where a site plan would be required to properly site the project.
3. Develop a mobile home district where both mobile home subdivisions and mobile home parks are included in the same district.
4. Develop a single-family district that does not allow multiple dwelling unit structures.
5. Develop a use-by-right list for the industrial zone.
6. Develop an agribusiness zone similar to the County's and zone areas in this district along U.S. 6.
7. Develop a planned development zone to allow unique developments to go forward inside Wiggins and as annexations to the Town.
8. Revise mobile home park regulations to eliminate extraneous language.
9. Revise the parking regulations to conform to current standards.

10. Prepare a bulk standards chart to easily display these district quantitative guidelines.
11. Streamline the review process into an integrated code encompassing subdivision, zoning, and planned development regulations.
12. Develop a vested rights section to comply with current state law.
13. Develop a floodplain overlay zone to comply with FEMA regulations.

Planning Administration

1. Develop a functioning planning commission for Wiggins.
2. Set terms of membership based on current state law.
3. Request that a member of the Wiggins planning commission sit on the County Planning Commission in the interests of sharing information and planning coordination.

C. Future Land Use Plan

County Future Land Use Plan for Wiggins Area

Morgan County designates the Town of Wiggins as a "major activity center" in the Planning Corridor in their 1988 Comprehensive Plan. County-wide goals of this plan that relate to Wiggins are the following:

1. To encourage development where: a) it is in proximity to the three activity centers; b) the proposed development is compatible with existing land uses; and 3) there is access to established public infrastructure (primarily roads and utilities).

2. The county will encourage the preservation of prime agriculture production lands in balance with pressures for land use changes to higher intensity development.
3. Improve Morgan County's image by dealing with community design issues in relation to land use.
4. Develop affordable housing for county residents.

In general, the policies related to these goals involve providing direction for new development in the county. Policies relating to annexation, county road maintenance, providing affordable housing, implementing or updating the county's development codes, coordination of planning with municipalities and towns within their three-mile planning limits, new developments paying their way for the construction of roads and utilities, and general cleanup and maintenance of individual parcels are the highlights of the plan. In general, the County will carefully review special uses and discourage future rezonings of parcels outside of municipal and town boundaries without firm development plans. This policy will help to encourage infill development or annexations to towns and municipalities prior to development on land zoned other than agriculture throughout the County.

A specific goal and policies in the County plan that relate directly to Wiggins involve economic development and future land use. The following is taken directly from the County plan:

The Wiggins Area

GOAL: Help encourage economic development in the Wiggins area which will make it a viable alternative as a residential community with supportive businesses and light industry.

WALU-1 Growth in the Wiggins area should be encouraged to the east and northeast between Kiowa Creek and Bijou Creek because 1) floodplain problems may be encountered west of Kiowa Creek; 2) extreme fill and subsequent low areas at I-76's exit 64 make this a

difficult area of the community to develop; 3) appropriate zoning already exists in this area.

WALU-3 The county should encourage economic development by allowing large-lot business subdivisions to occur in the C-zoned areas, even without benefit of linking into the Town's sewer system. However, all developments should be locked into an improvements agreement which would require the development to hook onto and pay for the public connection and tap fees at such time that a public system is viable. This improvements agreement should be a part of any future annexation agreement with the Town of Wiggins.

WALU-4 Prime agricultural land is to be conserved in the primary development area of Wiggins for production purposes to the greatest extent possible and preserved outside of this area (secondary development area).

This goal and associated policies are supplemented by a future land use map for the Wiggins area that shows new development of a commercial and industrial nature to the north and northeast of the community and residential to the east and south. Some development is encouraged to the west but only outside of the floodplain areas. In general, this future land use map follows the existing county zoning designations.

Wiggins Planning Area Future Land Use

1. Primary and Secondary Growth Areas

On the Future Land Use Plan and Annexation Plan Maps (Figures 8, 9, and 10), the Town of Wiggins Planning Area is divided into primary and secondary growth areas. The division into distinct growth areas is intended to help direct planning efforts, since complete buildout of the planning area is not anticipated within the 15- to 20-year time frame of the plan. The boundary between the primary and secondary growth areas essentially corresponds to the boundary between the Kiowa and Bijou Creek basins. The latter basin cannot be served by sewer or water utilities without major capital

investment. This places a major constraint to development within the secondary growth area until utilities are constructed that can serve the Bijou Creek area.

o Primary Growth Area

The Primary Growth Area for Wiggins includes all the land within the Town's municipal boundaries, plus lands primarily to the northeast, east, west, and south of the current Town limits. The Primary Growth Area is intended to delineate those portions of the planning area where it is most logical to extend urban services in the near term (5 to 10 years hence) and areas where the highest priority parcels for annexation are located. Developers are encouraged to locate within the Primary Growth Area first, before locations in the Secondary Growth Area are considered.

o Secondary Growth Area

The Secondary Growth Area is essentially all the remaining unincorporated land in the planning area situated outside the Primary Growth Area boundaries. This area is located primarily to the north of the existing Town limits, and as mentioned above, is contained within the Bijou Creek drainage basin and north of I-76. Eventually it is expected that land within the Secondary Growth Area will become urbanized, but the rural-to-urban transition is not anticipated within the next 15 to 20 years, depending upon the timing of the provision of sewer service to the area and general growth pressures in the county. This does not rule out possible development that could be served by forced mains (using lift stations to transport sewage to another basin), but such development should be very carefully analyzed as to fiscal feasibility, impact on existing services, etc., before annexation to the Town is considered.

Although presently under the jurisdiction of Morgan County, the territory in the Secondary Growth Area is within the 3-mile urban growth boundary around Wiggins that is recognized by Morgan County as a planning referral area. All development proposals in the Secondary Growth Area should be directed to the Town for referral and comment. The County's policies encourage residential, commercial, and industrial development to locate in or adjacent to

existing incorporated municipalities where urban services can be provided, in accordance with the municipalities' adopted comprehensive plans. The County intends for the urban growth boundary areas to help direct growth and enhance economic development and provide an official definition between future urban and agricultural land uses.

2. Land Use Descriptions

The Future Land Use Plan is a key element in the comprehensive plan. The Future Land Use Map illustrates the desired development pattern for the Town of Wiggins. A description of the categories in the land use element follows.

o Single-Family Residential

Provides for single-family detached and attached units at gross densities up to seven dwelling units per acre.

o Multifamily Residential

This category allows for the development of all types of housing, including apartments and condominiums, at gross densities of 8 to 20 dwelling units per acre.

o Manufactured Home

Allows for manufactured housing developments with gross densities up to 6 units per acre.

o Commercial

This category is intended to provide for a variety of uses of a business/commercial nature, including retail, office, and service establishments, and supportive activities such as restaurants and other complementary uses.

o Town Center/Commercial Core

A general area combining retail and municipal facilities uses together in an identifiable design scheme. It is intended to

serve as the primary core of the Town, an area that establishes Wiggins' identity for its own residents and all others who visit.

o Industrial/Agribusiness

Provides for light or medium intensity agribusiness, manufacturing, processing, distribution activities, assembly, and large-scale warehousing and storage operations. Convenient access to I-76 is a major locational incentive for these types of uses.

o Public/Quasi-Public/Cultural

This category provides for governmental and institutional uses, including schools, libraries, utility facilities, water and sewer treatment facilities, etc., and cultural uses such as churches.

o Parks/Open Space/Agriculture

The parks and open space designation is applied to lands that are to remain open and free from development so as to protect natural environmental elements, such as floodplains and major drainageways. These lands may be in private or public/quasi-public ownership. The agriculture designation applies to lands intended to remain in agricultural production. It is included here because the agricultural land surrounding Wiggins serves as a significant open space element.

o Community Reserve

Community Reserve describes those portions of the Planning Area which are not expected or encouraged to be changed from rural to urban land uses within the next 5 to 20 years, but which are areas for potential growth in the future. These lands may also be used to accommodate land uses that generally fall into the special use category, such as gravel mining or a special industrial use. Siting these uses must be done very carefully, since once located they tend to affect the character and nature of future development. With some of these types of uses, it is

difficult to mitigate or buffer impacts to surrounding lands, thus limiting future development.

Because development activity is not currently anticipated, future urban land uses remain undesignated until the need arises. The transition of land use from rural to urban in the Community Reserve areas requires a comprehensive plan amendment which demonstrates compatibility with the goals, objectives, and policies contained in the plan.

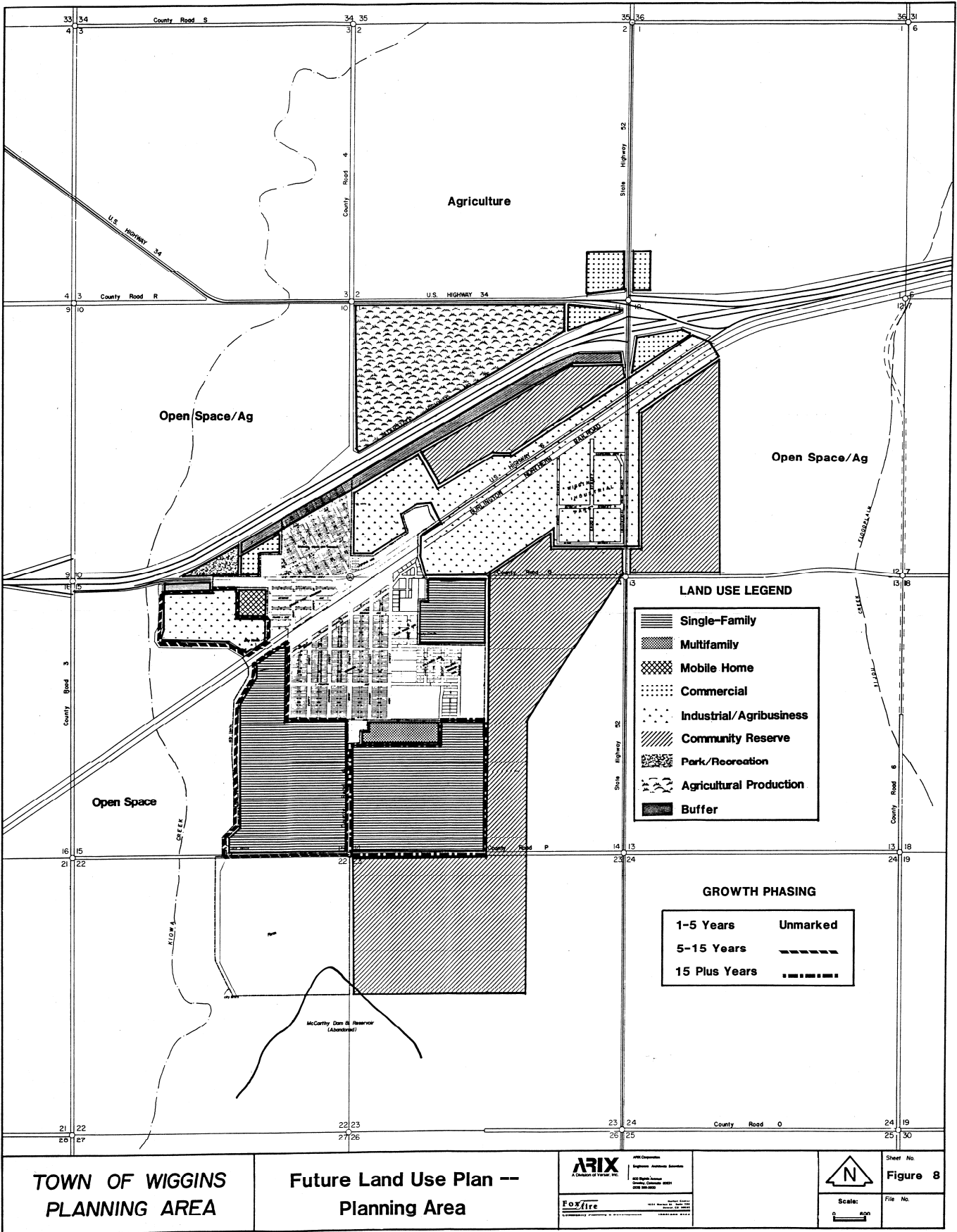
Although still under Morgan County jurisdiction, most of the land areas in Community Reserve in the Wiggins Planning Area are intended for urban development and should remain in agriculture or open space until annexed. Community Reserve special uses may be considered appropriate on a case-by-case basis. Utility development projects are also appropriate if negative impacts are mitigated.

o Residential Transition









This category applies to the residential area in Wiggins north of Highway 6. The intent is to allow this area to maintain a residential character and to protect existing single-family homes, while also serving as a buffer between existing uses and new development.






3. Future Land Use Plan Maps

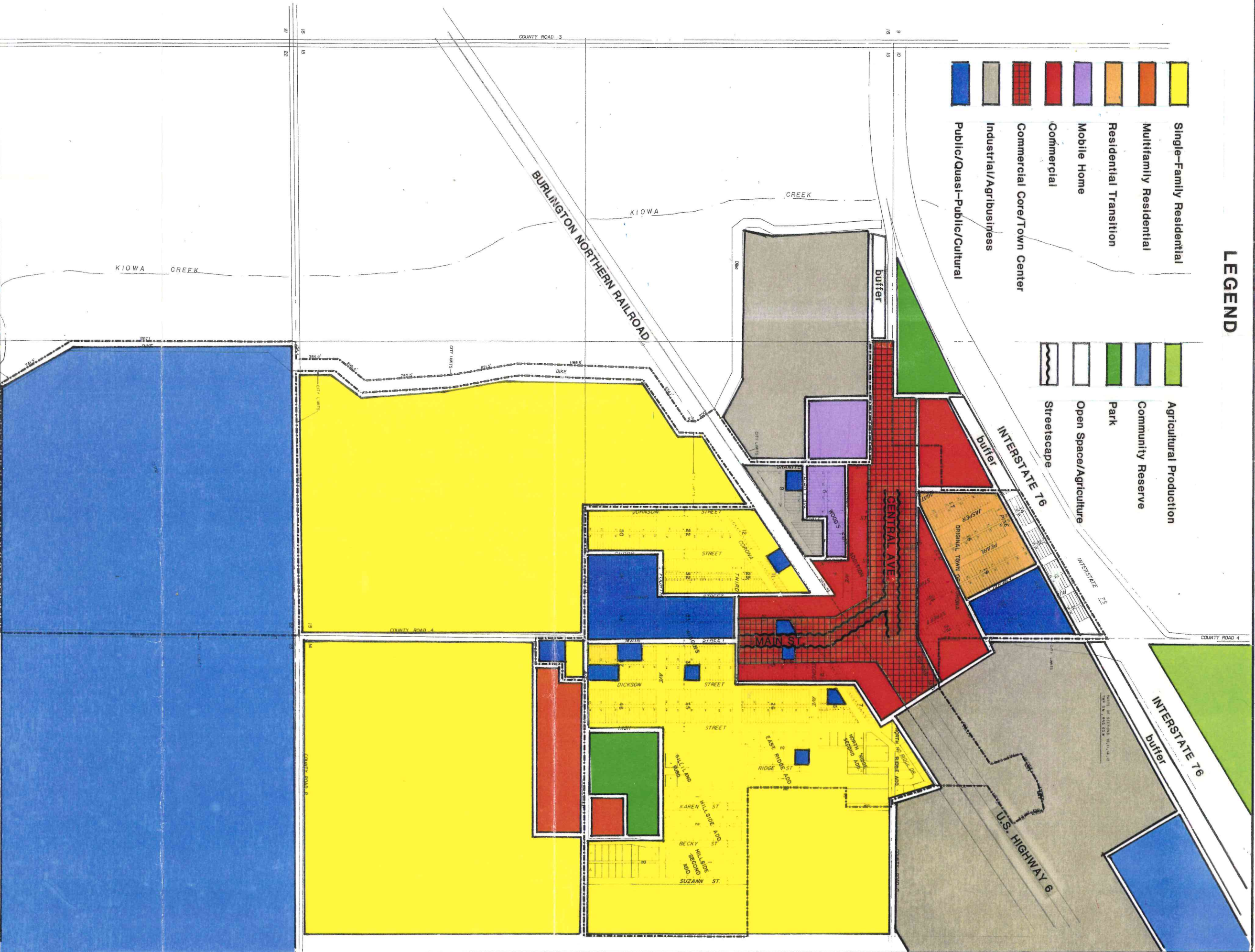
The Future Land Use Maps (Figure 8 and 9) show designated land uses within the Primary and Secondary Growth Areas in the categories described above. It should be noted that this map is not a zoning map, but rather a map that depicts general land use categories. Zoning within Wiggins' town limits is controlled by municipal ordinance. Specific zoning for development projects is usually set at the time of annexation in conformance with the comprehensive plan. Desirable development projects not in conformance with the comprehensive plan may require that a plan amendment be processed prior to zoning (See Appendix A, "Amendment Procedure").



LEGEND

-  Single-Family Residential
-  Multifamily Residential
-  Residential Transition
-  Mobile Home
-  Commercial
-  Commercial Core/Town Center
-  Industrial/Agribusiness
-  Public/Quasi-Public/Cultural

-  Agricultural Production
-  Community Reserve
-  Park
-  Open Space/Agriculture
-  Streetscape



WIGGINS, COLORADO
INCORPORATED AREA

**Future Land Use
Plan**

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Figure 9

Scale: 1" = 300'

North Arrow

Sheet No. _____
File No. _____

The Future Land Use Plan was based on and represents a synthesis of information from a number of sources, including an inventory of environmental opportunities and constraints, analysis of future population and demographic trends and projections, economic development considerations, and input and feedback from members of the Town Council and interested citizens. The Future Land Use Plan is a core element of the comprehensive plan, and the Future Land Use Map illustrates the desired future land use pattern for the Town of Wiggins. This map should be revised and updated when necessary due to changing circumstances or new information.

4. Description of Future Land Use Pattern

a. Primary Growth Area

Within the current town limits the designated land uses essentially continue the present land use pattern, except for areas north of U.S. Highway 6 and along Main Street. A commercial core/town center area is shown straddling Highway 6 from the Town entry points and extending south on Main Street to Third Avenue. A landscape design plan incorporating low-cost streetscape improvements should be developed to clearly establish an identity for this area. A public facility expansion area is shown adjacent to the Town Hall for possible future consolidation of governmental functions. Flanking the Town Center area are commercial expansion locations intended to compliment existing strip commercial uses and allow room for future commercial uses, including the Wood's First Addition area between Highway 6 and the BNRR tracks. The location of the Town's sewer plant is shown as public with space for future expansion. Adjacent to the sewer treatment area is a residential transition area intended to protect existing single-family homes and where development of multiple parcels is encouraged, rather than lot by lot. A buffer strip along I-76 is shown. Such greenbelt setbacks provide a visual relief area from the roadway to more intense uses behind them.

South of the BNRR tracks the land use designations in the Town reflect existing uses (predominantly single-family residential) with an expansion to the town park and the addition of an adjacent multifamily area. The farm property is designated as community reserve.

Outside the town limits within the Primary Growth Area, the designated land uses have been chosen to reflect a logical pattern of future growth that is compatible with the existing character of the Town. Single-family areas are shown south of 5th Avenue to County Road P and west to the Kiowa Creek levee. Growth phasing is indicated, with those areas west of County Road 4 expected to develop in 5 to 15 years and areas east of Road 4 beyond 15 years, primarily due to unwillingness by landowners to allow fragmentation of their holdings. A potential multifamily area is shown south of the town park, intended to provide a location for future affordable housing. A manufactured home location shown adjacent to East Ridge Addition is intended for a large mobile home park or subdivision as another form of affordable housing.

Industrial/agribusiness areas are shown along Highway 6 and Interstate 76 to take advantage of these transportation elements and the BNR. The area east of the town limits encompasses the Wiggins Industrial Park that is a platted subdivision in the County. A portion closer to the I-76/U.S. 34/Highway 52 intersection is shown as community reserve, primarily because of the difficulty of extending services to this area. Commercial areas are shown at the intersection quadrants.

A travelers' wayside/park area is indicated on the north side of Highway 6, just east of the flood dike for Kiowa Creek that serves as an entry point for the Town. Visible from I-76, the wayside is intended to capitalize on the interstate traffic and also provide a possible boost to retail businesses in the Town from travelers that stop for a rest. Signs on I-76 announcing the wayside several miles in advance in each direction would be essential. The remainder of the Primary Growth Area is shown as either open space or community reserve, corresponding to the location south of County Road Q in the Phase 2 Annexation Area (see the Annexation Plan Map, Figure 10). These areas are not expected to develop within the next 15 to 20 years.

b. Secondary Growth Area

Land use designations in the Secondary Growth Area consist solely of agriculture/open space areas, except for several small commercial locations around the I-76/U.S. 34/Highway 52

intersection. The Secondary Growth Area corresponds to the Bijou Creek drainage basin where, because of the intervening ridge line and drainage flow patterns, extension of sewer service is not possible without the use of lift stations or the construction of a new treatment facility. Locations in the planning area outside the primary or secondary growth areas are designated as agriculture/open space.

5. Goals, Objectives, Policies

Overall Land Uses

Goal: Promote the sound and orderly development of Wiggins in a manner that will provide a well-balanced land use pattern and which will preserve and enhance the qualities and characteristics that make Wiggins a desirable place to live.

Objectives:

- a. Establish compatible and efficient relationships between land uses.
- b. Ensure that land development is linked to the location and capacity of the existing and planned roadway network.
- c. Practice land use planning that protects developments from environmental hazards and provides for the conservation of energy and water.
- d. Provide a clear, consistently applied guidance framework to establish the Town's development expectations, protect property values and the quality of life, and respond to the needs of future development.
- e. Encourage infill development within the Town's existing corporate limits.

Policies:

- LU-1. The land use plan shall be utilized to create a compatible land use pattern for Wiggins.
- LU-2. Proposed development projects shall be reviewed for conformance with the Comprehensive Plan and applicable land development regulations. Land use or annexation proposals viewed to be desirable to the Town but which differ significantly from the Comprehensive Plan should be preceded by appropriate amendments to the plan. Proposals which require the assistance of outside experts to ensure they are technically complete are to have the review costs paid by the developer when these costs exceed the existing fee structure set by the Town.
- LU-3. Developments with requirements beyond existing service levels shall not be allowed to develop unless it is demonstrated that such services can be adequately provided and maintained. All proposed development plans shall be referred for review by the fire district, school district, and the various utility providers to ensure that new growth can be accommodated.
- LU-4. Wiggins shall encourage Morgan County to take into consideration its Comprehensive Plan goals, objectives, and policies when reviewing development proposals within Wiggins' Planning Area that are not annexing into the Town.
- LU-5. Any development which could endanger public safety or property by being located on or near areas determined to have environmental hazards shall be either avoided or carefully scrutinized to ensure public safety problems are properly mitigated.
- LU-6. The Town shall pursue revising and updating its land development regulations, including adoption of new subdivision regulations.

LU-7. Infill development shall be encouraged and the expansion of Wiggins from the current town limits outward.

Residential Land Uses

Goal: Preserve established residential areas in Wiggins to maintain their character, quality of life and overall low-density development pattern.

Objectives:

- a. Encourage the development of a mix of housing types and housing prices appropriate to the needs of the community.
- b. Encourage low to medium density single-family and multifamily infill development of similar housing stock within the current town boundaries.
- c. Retain the existing housing stock by encouraging the upkeep and maintenance of existing housing units.
- d. Encourage residential development to locate in residentially designated areas.
- e. Control and manage residential development in environmentally hazardous areas.
- f. Encourage removal of incompatible uses in residential areas.

Policies:

- LUR-1. Wiggins shall promote the preservation and upgrading of the Town's residential areas. Studies to determine the feasibility of establishing home maintenance, weatherization, and rehabilitation programs are encouraged. Substandard or unsafe housing units should be removed.
- LUR-2. The overall low density residential development pattern should be maintained. Any moderate and high density developments should include enough open space so that overall density remains low, in conformance with

suggested gross density amounts previously mentioned under "Land Use Descriptions."

- LUR-3. Environmental hazards and constraints shall be considered in all new residential developments as part of the development review and approval process. Appropriate mitigative measures shall be required as necessary, based on determinations by qualified professionals and review by Town officials.
- LUR-4. Code enforcement to ensure high standards of home and property maintenance should be a top priority.
- LUR-5. Future residential growth should occur in accordance with directions set forth in the land use and annexation plans. Emphasis should be placed on promoting residential development in already annexed, vacant, underutilized, and close-in areas that are more immediate to the existing portions of the town and readily accessible to public utilities.
- LUR-6. The removal of industrial land uses from residential areas to more appropriate locations should be encouraged.
- LUR-7. Areas along County Road Q currently zoned business should be rezoned to residential to reflect existing development.

Residential Transition Area

Goal: Protect and preserve existing single-family homes within the residential transition area as long as possible as new development occurs in adjacent locations.

Objectives:

- a. Encourage development of multiple parcels rather than on a lot-by-lot basis.
- b. Maintain a buffer between existing and new development.

- c. Improve property upkeep and maintenance.

Policies:

- RT-1. Wiggins shall recognize and attempt to preserve and protect existing single-family homes in the residential transition area when considering new land use applications.
- RT-2. Multiple parcel development shall be encouraged in the residential transition area to promote a more cohesive development pattern.
- RT-3. Buffers shall be established between existing land uses and new development adjacent to the residential transition area and along Interstate 76.
- RT-4. The Town shall investigate ways to assist homeowners with property maintenance and upkeep and shall investigate strengthening provisions in its zoning code covering appearance-related issues, for the transition area and the community at large.

Commercial and Industrial Land Uses

- Goal:** Commercial and industrial development should provide a safe, attractive, and healthy environment which does not have an adverse impact upon surrounding areas.
- Goal:** The Town should encourage and promote commercial and industrial development to strengthen its tax base, increase revenue sources, and provide employment opportunities for its residents.

Objectives:

- a. Encourage the expansion of the existing commercial core area along Highway 6; establish a "Town Center" utilizing a mix of public and commercial uses.

- b. Promote a positive political and regulatory environment to encourage growth and development of the tax base.
- c. Promote integrated, multi-use development on commercial sites.
- d. Facilitate coordination between town-sponsored economic development efforts and the Morgan County Economic Development Corporation.
- e. Support industrial development that mitigates negative impacts on the environment and adjacent land uses.
- f. Encourage concentrated or clustered arrangements of commercial development and the location of commercial activity centers at the intersections of arterials or collectors and arterials.
- g. Promote small business and industry retention and development within Wiggins.

Policies:

- CI-1. Wiggins shall encourage infill commercial development along Highway 6 and Main Street to strengthen the Town's commercial core. Rezoning of certain parcels should be considered to help implement this policy, including rezoning currently B-zoned properties on the eastern edge of Town to residential zoning.
- CI-2. Wiggins will encourage commercial and industrial expansion to occur within the Town limits to the greatest extent possible, in specifically designated commercial and industrial/agribusiness areas.
- CI-3. New nonresidential development should be located near appropriate transportation routes so that increased traffic generated by such development is not funneled through residential areas.
- CI-4. Developers shall be required to use landscaping or other means to buffer proposed commercial/industrial uses from adjoining residential uses.

- CI-5. The Town should consider adding a planned unit development section to the zoning ordinance to cover mixed-use and nonresidential development and require the use of this process when appropriate. Additionally, the Town should consider formulating and adopting specific commercial and industrial planning and design guidelines.
- CI-6. The Town should pursue federal, state, or local economic development programs that promote the benefits of the Wiggins area and may help the Town to offer incentives for new and existing business and employment opportunities.
- CI-7. In the "Town Center" core area a mix of office, business, and retail uses shall be encouraged, with an emphasis on businesses oriented to the specific needs of Town residents. The Town Center should serve as a primary focal point and identity area for the Town. Overall design integration of the Town Center will be encouraged, and a streetscape plan (design and construction drawings) should be prepared and implemented in conjunction with recommended street drainage improvements.
- CI-8. New industrial/agribusiness development shall be encouraged to locate in the Town along the Burlington Northern railroad tracks and U.S. Highway 6 to Highway 52 and west to the flood protection levee.

D. Annexation Plan and Map

A proposed annexation strategy for Wiggins is illustrated on the Annexation Plan Map (Figure 10). The map displays Primary and Secondary Growth Areas, which have been described earlier. The Primary Growth Area is further subdivided into Phase 1 and Phase 2 annexation areas that are described below.

Phase 1 Areas

Phase 1 Areas are classified as "high priority," with a development time frame within the next 10 years. These areas are immediately

contiguous to the existing town limits and represent logical, close-in areas for extension of municipal services.

Phase 2 Areas

Portions of the Primary Growth Area designated as Phase 2 annexation areas have a much lower priority for annexation and a longer time frame before development activities are expected to occur (10 to 20 years). These areas are outside of the service area of the Town's sewer system and will require the development of pump stations or another treatment facility to be served by sewer.

Annexation Goals, Objectives, and Policies

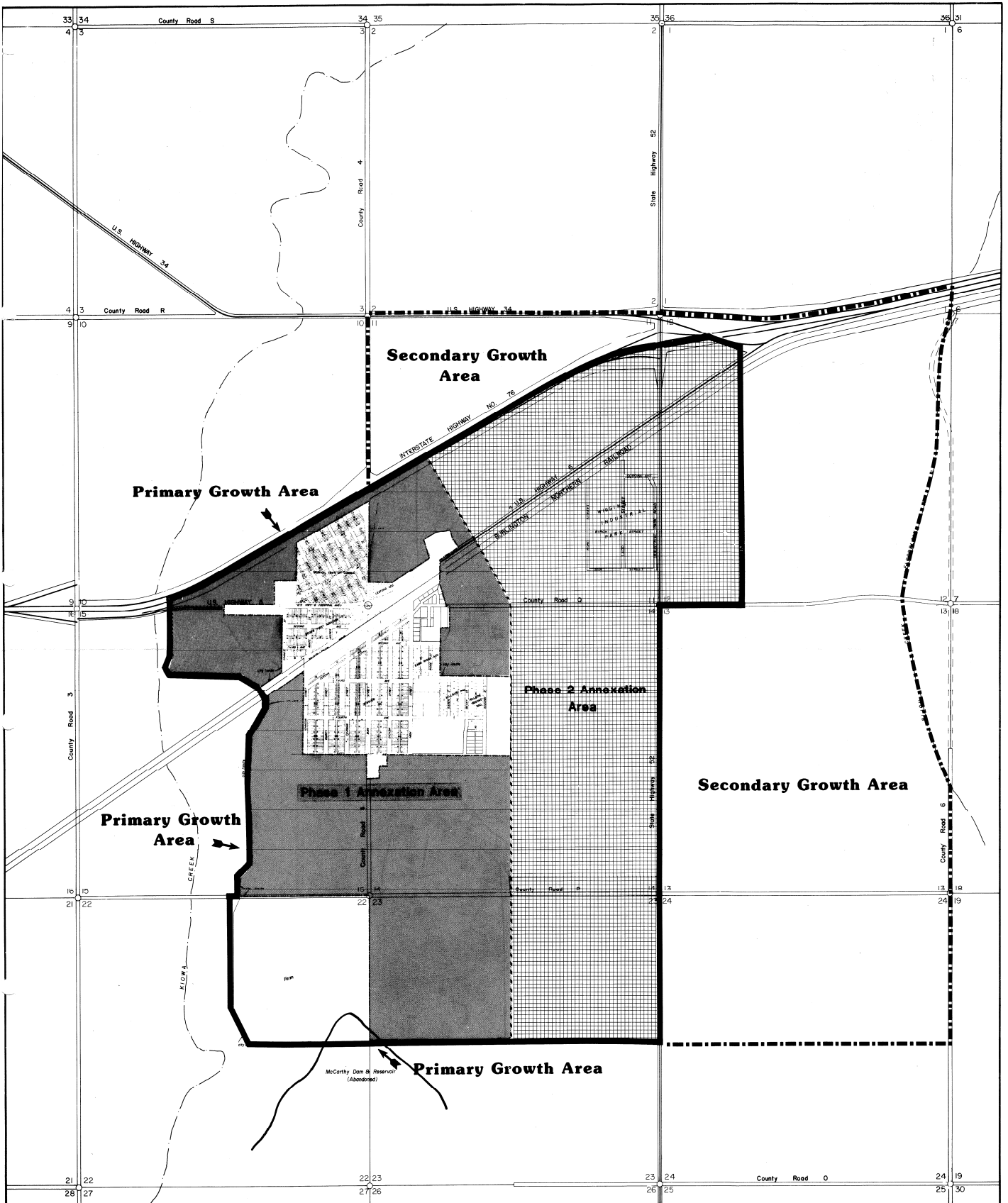
Goal: **Ensure the logical extension of the town boundaries so that Wiggins may expand in a directed, logical, and fiscally sound manner.**

Objectives:

- a. Ensure that new growth pays its own way.
- b. Expand annexation guidelines and criteria that give the Town flexibility when negotiating pre-annexation agreements.
- c. Analyze the fiscal impacts upon the Town resulting from annexation.
- d. Develop and implement an annexation operating plan and strategy.
- e. Increase the Town's tax base and revenue sources.
- f. Integrate new annexations into the current Town to the greatest extent possible.

Policies:

- A-1. Developers of new areas should equitably participate in the provision of needed public services, facilities, and utilities serving their areas so that such development not be a burden on existing Wiggins residents.
- A-2. Wiggins shall develop and adopt annexation criteria and use them when considering annexation proposals.
- A-3. Land proposed for annexation should have a proposed or existing land use that is consistent with the future land use plan and compatible with surrounding areas.
- A-4. Preference shall be given to development proposals that are able to prove they will provide a long-term positive fiscal benefit to the Town. Fiscal impact analysis at the developer's expense may be required.
- A-5. Already annexed underdeveloped land within the Town should be given first priority for development. This does not rule out, however, strategic annexations within the Primary and Secondary Growth Areas to protect the Town's growth options.
- A-6. Water rights transfer to the Town will be required and will be negotiated prior to annexation. Water augmentation plans and/or fees-in-lieu may be necessary.



**TOWN OF WIGGINS
PLANNING AREA**

LEGEND

- Phase 1 Annexation Area
- Phase 2 Annexation Area

Foxfire
 Community Planning & Development
 13031893 8144

JACK DICKER
 Professional Engineer
 Land Surveyor
 Engineering Services
 612 Third Avenue
 Ft. Worth, TX 76102

**Annexation
Plan**

N

Scale:
0 500

Sheet No. **Figure 10**
 File No.

VII. CIRCULATION AND TRANSPORTATION PLANNING

A. Existing Conditions

Regional

Surrounding the Wiggins Planning Area is a fairly extensive regional road network of state and federal highways along with a major controlled access interstate facility, Interstate 76. I-76, traveling through the northeastern plains of Colorado, connects Interstates 70 and 80, which both connect to both coasts of the United States. I-76 is the major regional link to the Denver metropolitan area. It is a heavily traveled roadway that experiences a significant amount of truck traffic. There is no exit from the interstate to the center of Wiggins, but rather one to the west at County Road 3 and one to the east at State Highway 52. Interstate 76 is a hazardous and nuclear materials transport route.

U.S. Highway 6 and I-76 are dual routes from Denver. U.S. 6 separates from the Interstate at the County Road 3 interchange west of Wiggins. It travels through Wiggins and then rejoins I-76 at the Highway 52 interchange. It separates again near Brush and parallels the interstate northeast to Sterling. State Highway 52 travels directly south of Wiggins for about 10 miles and then turns west, connecting to I-76 at Hudson, I-25 near Dacono, and ending near Boulder. North of the I-76/Highway 52 interchange, State Highway 39 connects Wiggins to Goodrich and State Highway 144.

U.S. Highway 34 separates from I-76 at Wiggins as it travels westward. It provides a major regional connection to Greeley through Weld County, particularly for cattle truck traffic. There is interest in seeing this road become a four-lane highway from Wiggins to Greeley, but it does not meet the criteria for a full four-lane facility at present, according to the Colorado Department of Highways. Highway 34 is designated as a hazardous materials route.

Planning Area

The roadway network in the planning area, aside from portions of the state and federal facilities mentioned above, consists of the one-mile grid pattern of county roads that fall on section lines. East-west letter-designated roads within the planning area include County Roads O, P, Q, R, and S. Numbered north-south roads include 3, 4, 5 (which runs as State Highways 52 and 39 through the planning area), and 6. Most of these roads are paved, except for the sections listed below that are gravel:

- All of Road S (2 miles)
- Road 4 from U.S. 34 to Road S (1 mile)
- Road R west of U.S. 34 (.75 mile)
- Road P between Highway 52 and Road 6 (1 mile)
- All of Road 6 (1.5 miles)
- Road O from the middle of Section 23 to Road 6 (1.5 miles)

The continuity of the grid pattern is broken in several places where section-line roads do not exist; specifically Road S between Road 4 and Highway 39, Road 6 from the Bijou Creek floodplain to Road S, and Road O between Road 3 and the middle of Section 23. These breaks will not have a significant impact on circulation in Wiggins' future growth area. It should be noted that a portion of County Road Q (also known as the old DLD road) between Wiggins and Fort Morgan is used by short- and long-haul truckers to avoid the Highway Department's port-of-entry on Interstate 76. Road Q also carries a significant amount of local traffic between Wiggins and Fort Morgan.

Interstate 76 is obviously the major roadway in the planning area in terms of traffic-carrying capacity. As mentioned earlier, there are two interchanges along I-76 in the planning area, about two miles apart in distance, flanking Wiggins on the west and east. These interchanges were both constructed in 1959. The western exit at County Road 3 gives access to Wiggins via U.S. Highway 6. This exit has steep ramp embankment grades due to its proximity to the Kiowa Creek floodplain, requiring a significant amount of fill dirt. Because of this situation, adjacent areas are substantially lower and are subject to flooding. This will limit opportunities for growth at this interchange.

The eastern exit connects I-76 with U.S. Highways 6 and 34 and State Highways 52 and 39. Access to Wiggins is south on Highway 52 and then southwest on Highway 6, paralleling the Burlington Northern tracks. Highway commercial and industrial uses have developed at this interchange north and south of the expressway, although visibility from I-76 is not that good when approaching the interchange from the east due to the Highway 34 and Highway 52 overpass.

Average daily traffic counts on Interstate 76 at various locations near Wiggins are listed below. These figures are current as of July 1988.

<u>Location on I-76</u>	<u># of Vehicles</u>
At the Kiowa Creek interchange (exit 64)	6,400
Between Highways 6 and 39	5,800
Between Highway 39 and Highway 6/34	5,950
At Highways 39 and 52	8,000
East of Exit 66 toward Fort Morgan	8,700

There are several proposed road improvement projects near the Wiggins area within the Colorado Department of Highway's five-year budgeting plan. On Interstate 76, two sections are scheduled for reconstruction of both eastbound and westbound lanes: a six-mile stretch from Kiowa Creek west to mile post 68 in 1991-92 and in 1992-93, an 11.7-mile section from Kiowa Creek to the U.S. 34 exit near Fort Morgan. Reconstruction involves major resurfacing with a five-inch concrete overlay as well as various safety upgrades. At present the bridge structures at the two Wiggins interchanges are not slated for any improvements, but this could change if necessary in the course of the reconstruction work.

Preliminary engineering work for reconstruction of U.S. 34 from Dearfield to Wiggins is scheduled for 1994-96, with construction in 1996-97. This highway will remain a two-lane facility. Additionally, the service road north of I-76 that travels east from Wiggins and presently dead ends at Long Bridge Road will get an overlay and be extended to tie into the ramps at the Bijou exit. As part of this project the state will also overlay portions of County Road Q. It should be noted that priorities for the Highway

Department's five-year plan are set every year, so the above-mentioned projects could be pushed back if higher priorities are recognized or if anticipated funding is not realized.

A significant transportation feature, aside from the road network, is the Burlington Northern Railroad mainline tracks, running diagonally southwest to northeast through the planning area. An average of 28 trains per day travel through Wiggins, principally transporting coal from large open-pit mines in Wyoming and Montana for use by utilities to generate electric power. The Burlington tracks are also used by AMTRAK for passenger rail service, with one daily stop in each direction at Fort Morgan.

Town of Wiggins

Streets in Wiggins are laid out in the classic grid pattern, with avenues running east-west and streets running north-south. An exception to this is the street grid north of Highway 6 (Central Avenue) that is tilted to the west about 25 degrees, a result of the platting for the original town of Corona. The Burlington Northern tracks cut through the Town and disrupt the continuity of the grid. There is only one railroad crossing in the Town, the extension of Main Street across the tracks to Central Avenue, and it is at grade.

Most of the streets have either a 60' or 80' right-of-way, except for Main Street and Central Avenue, which have 100' rights-of-way. The majority of the streets are not paved and are surfaced with gravel. Paved streets include all of Central Avenue and Main Street along with portions of Corona, Third, Fourth, and Fifth Avenues and Chapman, Dickson, and Jasper Streets. Curb, gutter, and sidewalk do not exist except in very limited areas. Dust can be a problem at times on the unpaved streets.

Some platted streets in the Town have not been built, resulting in lots that do not have street access. In other areas informal paths or alleys are serving as streets. Most of the streets are in reasonably good condition. There do not appear to be any capacity problems at present on any of the roadways in the Town. However, a major bottleneck often results at the railroad crossing because of the high volume of train traffic, coupled with the fact that

there is only one at-grade crossing point. Additionally, trains at times will park and completely block the crossing. At other times the signal arms may be down for an hour or more with no train coming through. Similar problems occur at the Highway 52 railroad crossing east of town. Wiggins officials are investigating how to resolve the problem of the blocked crossings.

B. Circulation and Transportation Plan

Introduction

The Circulation and Transportation Plan has been designed to logically relate to the projected future land use pattern in Wiggins' growth areas. As actual growth and land development occur, roadway relationships may need to be changed. Transportation and land use are tightly linked together, and as the planned road network evolves it will strongly influence both specific land uses and the overall pattern of development.

The road network plan is shown on the Circulation and Transportation Plan Map (Figure 11). This plan is intended to be a precursor to development and implementation of a master street plan. Emphasis has been placed on addressing traffic flow within the existing community, how connections to proposed future land uses will be arranged, and integration of Wiggins' road network with the regional circulation system.

Street Classification Scheme

The circulation system is based upon a hierarchy of roadway functions. There are five broad functional classifications of streets within Wiggins' Planning Area, as outlined below.

- Freeway. A completely controlled access highway serving as a regional thoroughfare, designed to provide interstate or intercity traffic flow, with grade separations at intersections.
- Primary Arterial. The primary purpose of an arterial street is to carry through traffic. It provides inter-community continuity, but ideally should not penetrate identifiable

neighborhoods. A secondary purpose is to provide access to abutting property. State and U.S. highways in the planning area are designated as primary arterials.

- Secondary Arterial/Major Collector. This classification applies to arterial streets within the planning area that are also designated by Morgan County as "collectors" on the county Road Network Plan. In this case, these roads all fall on section lines and make up part of the one-mile-grid rural road pattern. Carrying through traffic is the primary purpose of the roads, although they do provide neighborhood access within the Town.
- Collector. Collector streets have the primary purpose of intercepting traffic from intersecting local streets and directing this movement to the nearest arterial streets. Collector streets provide both land access service and local traffic movement within residential neighborhoods, commercial areas, and industrial areas.
- Local. Local streets represent the lowest functional category. These streets provide direct access to adjacent property and access to the higher classification roadway systems. Local streets are often deliberately designed to discourage or minimize through traffic movement.

Typical design standards for each of the above roadway types are shown in Table 18.

Table 18
Roadway Design Standards

	<u>Local</u>	<u>Collector</u>	<u>Primary and Secondary Arterial</u>	<u>Freeway</u>
Design Speed	30	35	45-55	N/A
Driving Lanes	2	2	2-4	4+
ROW (feet)*	60'	60'-80'	80'-120'	N/A
Parking	On-Street	On-Street Optional	No On-Street	N/A
Spacing	Every Block	$\frac{1}{4}$ - $\frac{1}{2}$ miles	$\frac{1}{2}$ -1 mile	1-3 miles

*Right-of-way width is variable based on projected traffic volumes and service requirements.

Plan Description

The Circulation and Transportation Plan Map (Figure 11) shows the planned road network within the Town of Wiggins and in the planning area. Probably the major impediment to efficient traffic circulation in the community is the lack of a separated grade crossing for the Burlington Northern Railroad tracks. A less severe impediment to traffic circulation is the fact that most of Wiggins' streets are not paved. The plan addresses both these problems. The existing Main Street/U.S. 6 crossing is recommended to remain an at-grade crossing. As a compliment, a new separated grade crossing is recommended at Granite Street. Paving of the Town's streets is also recommended and should occur in conformance with recommendations contained within the internal drainage study for Wiggins prepared by ARIX Corporation.

Within the Town extensions of Ridge Street are shown to help break up several large lot areas and unify the surrounding single-family areas. On the east and west edges of the Town new collectors are shown, and a yet-to-be-built Sixth Avenue has also been designated as a proposed collector. These streets are intended to provide efficient connections between existing and planned future development areas, predominantly single-family in character.

Proposed collector streets are also shown from County Road Q to the Wiggins Industrial Park and north of U.S. Highway 6 and east of County Road 4. These collectors are intended to accommodate traffic generated by industrial/agribusiness uses planned for these areas. Roads outside the town limits essentially correspond with the County's road plan and are linked with the Town's internal circulation system to provide regional access to employment, services, and housing.

C. Goals, Objectives, and Policies

Goal: Provide an efficient, cost-effective, and safe transportation system that will meet the Town's needs for convenient movement of people and goods throughout the planning area.

Objectives:

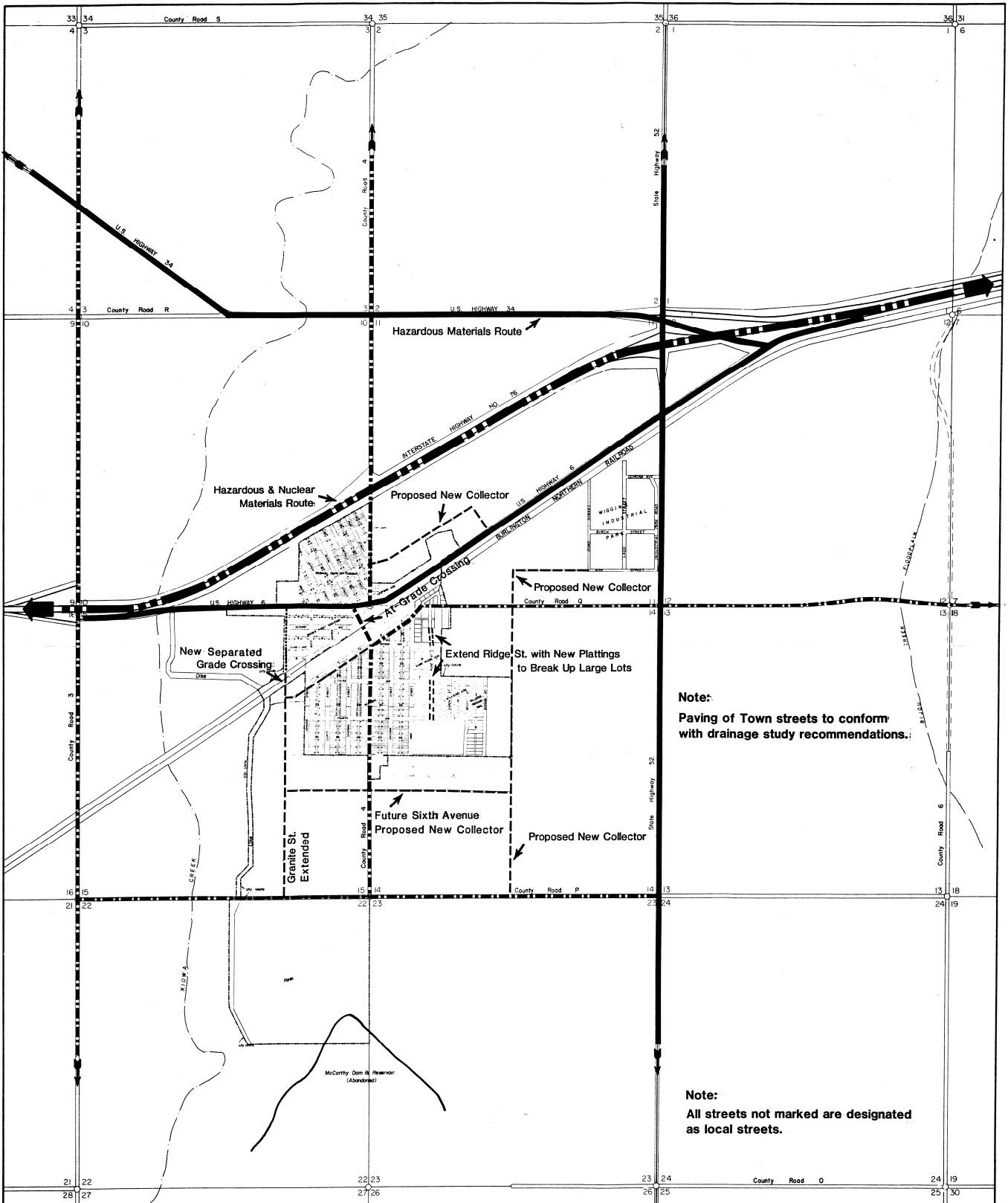
1. Classify streets according to their function.
2. Provide a systematic means to maintain and improve the Town's roadways, including efficient snow removal and routine street maintenance.
3. Provide a local roadway system that supports and integrates with the regional roadway network.
4. Provide for the special needs of the elderly, young people, and low-income persons who may not be adequately served by the existing transportation system.
5. When financially feasible, pave the Town's streets.
6. Find solutions to congestion caused by blocked train crossings.

Policies:

- CT-1. Formally adopt a master street and circulation plan that clearly defines the roadway system, incorporating a functional classification system to ensure that roads are

designed and maintained according to their planned function, with a balance between projection of traffic carrying capacity and adequate access to adjacent parcels of land.

- CT-2. All new development projects shall be reviewed for conformance with the circulation and transportation element of the Comprehensive Plan and the adopted master street plan.
- CT-3. Developers shall be required to bear the construction cost of streets necessitated by the development and mitigate impacts to the existing street system in proportion to the increased loading and access problems caused by the development. Developers shall also be required to dedicate future right-of-way when necessary to the Town for parcels adjacent to arterial or collector streets.
- CT-4. Routine street maintenance and snow removal shall be provided in an efficient and timely manner.
- CT-5. Wiggins shall coordinate with Morgan County and neighboring communities to provide for special transit needs for special population groups.
- CT-6. The Town will develop a major street improvement and paving schedule within the framework of a capital improvements program. All street paving shall be in conformance with recommendations of the internal drainage study. Street paving will include curb, gutter, and sidewalk.
- CT-7. Wiggins shall vigorously support the establishment of a new separated crossing at Granite Street.



**TOWN OF WIGGINS
PLANNING AREA**

LEGEND	
	Freeway (Limited Access)
	Primary Arterial
	Secondary Arterial/Major Collector
	Proposed Collector
	Collector

Foxfire
Community Planning & Development
12001 68th Street
Bismarck, ND 58504
701-251-1111

JACK ODOR
Professional Engineer
No. 12345
Bismarck, ND

**Circulation &
Transportation
Plan**

Scale:
0 600

Sheet No. **Figure 11**
File No.

VIII. PARKS, RECREATION AND OPEN SPACE PLAN

A. Existing Conditions

1. Regional

Most of the land surrounding Wiggins is cultivated or fallow farmland, which gives the locale a rural, open character. A major recreation feature in western Morgan County is Jackson Reservoir, located about 10 miles north of Wiggins. It is a state recreation and wildlife preservation area that receives heavy use during the summer. However, many Wiggins residents feel Jackson Lake has been "taken over" by people from metro Denver and do not use the facility. Other reservoirs in the area are privately operated and do not allow public access.

Hunting for water fowl and upland birds and game provides another form of recreation in the county and has become an important economic benefit. Bottomlands along the South Platte River are the location for a series of public and private wildlife refuges that provide habitat, especially for waterfowl. The Kiowa and Bijou Creek basins flanking Wiggins on the west and east serve as wildlife migration corridors. These areas were discussed earlier in the environmental section of the plan.

At present, the county maintains one county recreation area, the fairgrounds in Brush. This facility is used year-round for community and county-wide activities. The county does not have at present any parks or open space acquisition program, but it does have public land dedication requirements in its subdivision regulations.

2. Town of Wiggins.

At present Wiggins has one park, located at Fourth Avenue and High Street. The park is approximately seven acres in size and contains ball fields, a concession stand and some picnic tables. The Community Hall building, still in use, is located at the southwest corner of the site. The park is heavily used during the summer by men's softball and Little League baseball. The Town is participating in a summer recreation program sponsored by the

University of Colorado. A recreation coordinator is provided as part of this program, which is scheduled to expire in 1991. School district facilities are used for some of the summer recreation events.

In winter basketball and volleyball leagues operate using school facilities, but these programs compete with school sports events. In general there is a lack of winter recreation and facilities. At one time a developer proposed expanding the Town's park to the east and adding a swimming pool, but this project was never completed.

Currently, the school district maintains the ball fields at the park. The Town is looking into hiring full-time help for park maintenance and charging rent for the ball fields to the school district. At present the Town does not have a cemetery, and this has been mentioned as a possible future public project. There has also been expressed the possible need for a park on the north side near the Legion Hall or east of the grocery store.

B. Park and Recreation Standards

Park and recreation standards, such as those prepared by the National Recreation and Parks Association, provide a method for assessing Wiggins' existing facilities. These standards are suggested guidelines and not a rigid formula to follow. Examples of these standards are contained in the Appendix. In performing such a comparison, no deficits were found, except that the Town should have one basketball court and one tennis court based on its current population. (Note: These are currently available at the school.) And in looking at projected population, even when using the "Scenario B" numbers (748 people in 2010), the Town will still not have any deficits, except for the two courts mentioned above.

There are no specific acreage standards for open space. In a sense Wiggins is surrounded by "open space" in the form of farmland. Open space areas can have many purposes, such as providing a physical separation between communities or incompatible land uses or defining an entryway into a community. Areas that are good candidate locations for open space preservation include creek and ditch corridors, gulches, steep slopes, places with significant environmental features, and corridors that connect schools and

parks with residential areas. Trail systems are often located in open space areas and along drainage corridors.

C. Parks, Recreation, and Open Space Plan

The Parks, Recreation, and Open Space Plan Map (Figure 12) illustrates planned park, recreation, and open space areas that correspond to the future land use plan. A proposed trail system is also shown. Major features of the plan include expansion of the existing Town park to the east and the addition of a traveler's wayside/park facility along U.S. Highway 6 at the western entrance to the Town. A trail link is shown between the expanded park and the school property to the west. Open space areas are indicated, including an open space buffer along Interstate 76 and along Highway 6 at the Town's west entrance. The Kiowa Creek basin is shown as open space also.

D. Goals, Objectives, Policies

Goal: Provide recreation activities and facilities, parks, and open spaces for persons of all ages and abilities in the community.

Goal: Provide open space areas to connect parks, buffer development, protect environmentally sensitive areas, and preserve lands with unique natural features and characteristics.

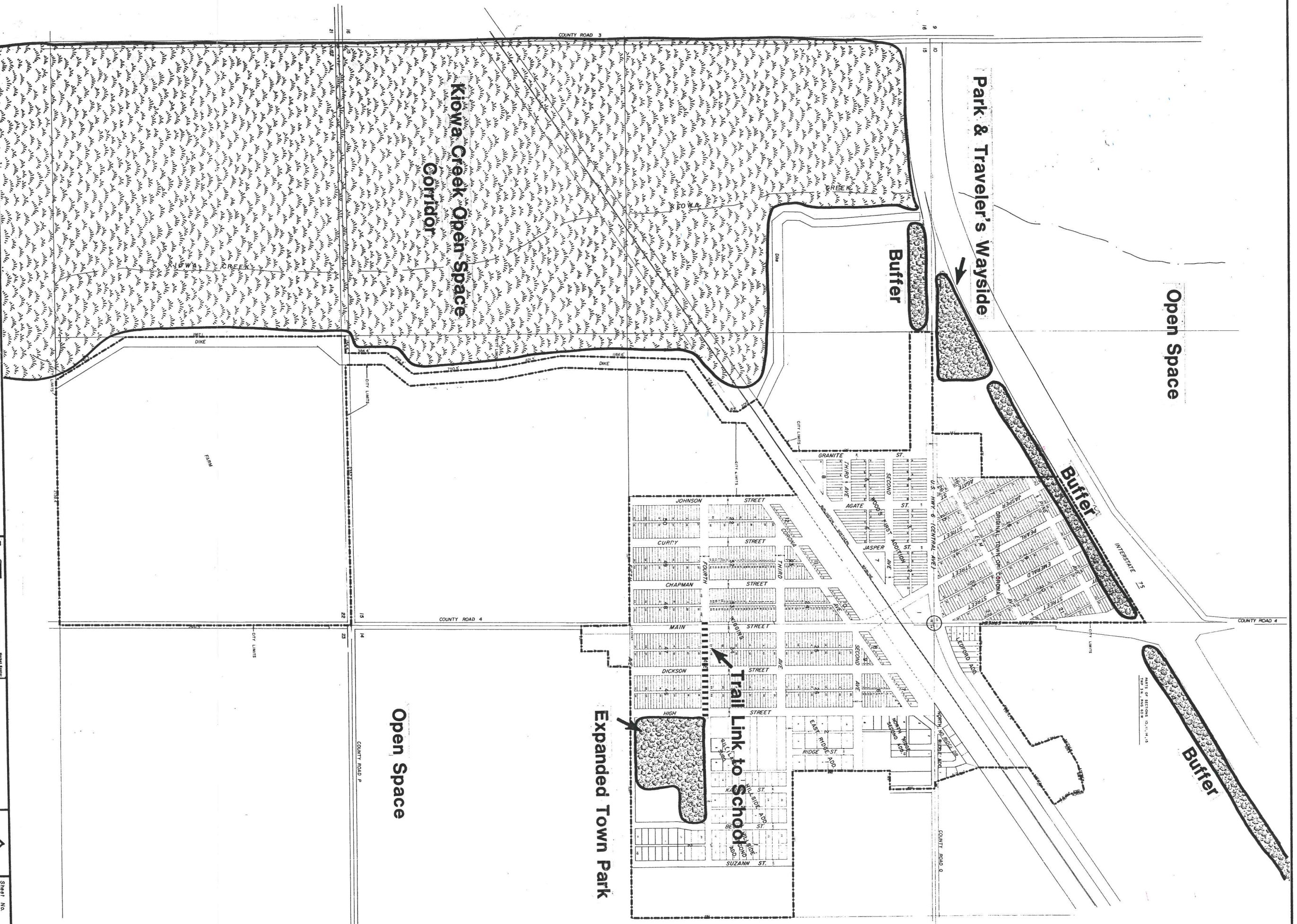
Objectives:

- a. Provide for a large central park for Wiggins.
- b. Develop a park, recreation, and open space system that responds to the present and future needs of Town residents and contributes to increasing the quality of life throughout Wiggins.
- c. Develop cooperative agreements with the Wiggins School District to coordinate joint recreational programs when feasible and the use of existing recreational facilities.

- d. Designate floodplain areas as open space.
- e. Investigate a suitable location for the establishment of a Town cemetery.

Policies:

- PROS-1. The Town shall consider improvement and expansion of the existing Town park, possibly with lottery funds.
- PROS-2. Developers shall be required to provide land or monies for park improvement or new parks, open space, or other public purposes consistent with the comprehensive plan. Standards for public land dedication shall be included in any adopted subdivision regulations.
- PROS-3. Incompatible land uses are to be buffered from one another through the use of landscaping and open space preservation. New developments locating along I-76 shall be required to provide a landscape buffer.
- PROS-4. The Town shall investigate establishing a traveler's park/wayside facility complete with services at the west entry to the Town, possibly as a joint project with the Colorado Department of Highways.
- PROS-5. Floodplain areas associated with Kiowa Creek shall be designated as open space.
- PROS-6. Wiggins shall coordinate its planning, when feasible, with the school district regarding recreational facilities and programs and enter into joint use agreements as conditions warrant.
- PROS-7. The Town shall encourage the establishment of a year-round recreational program for Wiggins residents.



WIGGINS, COLORADO
INCORPORATED AREA

Parks, Recreation &
Open Space Plan

PO/ITE
Community Planning & Development
12031823 3144

JACK O'DOR
Professional Engineer
No. 123456789
1000 Main Street
Wiggins, CO 80401

Figure 12

Scale: 0 100'

Sheet No. _____

File No. _____

APPENDIX

A. Comprehensive Plan Amendment Process

1. Amendment Types

The Wiggins Comprehensive Plan is a policy document used to guide land use decisions. To function as an effective decision making tool, the Plan must be dynamic and flexible enough to respond to changes in economic forces, legislative action, development technologies, and public attitudes. Therefore, a comprehensive plan amendment procedure is necessary to keep the Plan up to date and relevant in the face of ever-changing conditions.

Two general types of comprehensive plan amendments are envisioned. The first is an overall update conducted at least every five years. This update should be a thorough reanalysis of the entire plan, including a reevaluation of goals and objectives, updates of forecasts and land-related elements, and the reaffirmation of policies. The Wiggins Board of Trustees and Town planning staff or consultants would be primarily responsible for undertaking such an update, with input from other Town staff and the public.

The second type of comprehensive plan amendment contemplated would not encompass the entire plan, but would rather be a more specific policy, land use, or map amendment. An example of this type of amendment might be an instance where the Town desires to make an amendment to the proposed land use plan as a result of improved base data (such as remapping of a floodplain or new wildlife habitat information) or to correct an error. An amendment could also be necessary because of a specific development proposal. It is possible that a land use proposal could be introduced that may conflict with the Land Use Plan Map, but which, in fact, may be complementary to the goals, objectives, and policies of the Plan. To ensure conformance with the Plan, an amendment would be necessary prior to or concurrent with proposal approval and/or zoning approval. Development proposals within the Secondary Growth Area, where future land uses have not been designated ("Community Reserve" areas), would also require a comprehensive plan amendment.

The Town's future planning staff or consultants would be responsible for processing this type of amendment. It is likely the staff will wish to study an area larger than the specific development proposal during their analysis of the amendment.

Research and various types of studies (such as traffic analyses, effect on and compatibility with surrounding land uses, utility availability, etc.) may be necessary for the formation of the staff report and recommendations. An arrangement with the developer to cover the cost of such studies may be required at the discretion of the staff and/or Town Board. The developer may be required to furnish an impact mitigation plan should it be determined that negative impacts upon the Town and/or surrounding properties would exist as a result of the proposed amendment.

2. Procedure

Comprehensive plan amendments are to be reviewed before the Wiggins Town Board. The Board needs to hold at least one public hearing on the amendment proposal, and the staff needs to send a referral on the proposed comprehensive plan amendment to the following agencies:

- Town of Wiggins Departments and/or technical consultants
- Town Attorney
- Any affected special districts
- Any affected bordering jurisdictions
- Any affected utility providers

Fifteen (15) days prior to the hearing, notification of the time and place of the public hearing needs to be published in a newspaper of general circulation in the Town and in the official newspaper of the county affected. At the Town's discretion, landowners in the area may be notified by letter that a comprehensive plan amendment procedure is in progress. This is particularly useful when controversy over the amendment is anticipated.

At the public hearing, after reviewing all relevant evidence, testimony, and the staff report and recommendations, the Town Board needs to, by resolution, approve, disapprove, or approve with conditions the comprehensive plan amendment based on the criteria set forth below. If approved, the amendment, with any maps and descriptive text and other matter intended to be part of the plan, shall be filed with the County Clerk and Recorder.

The following criteria shall be used by the Town Board when considering a comprehensive plan amendment proposal. The proposed amendment must:

- o Be in conformance with the goals, objectives, and policies of the Wiggins Comprehensive Plan;
- o Be compatible with existing and planned surrounding land uses;
- o Not result in excessive detrimental impacts to the existing or planned transportation system; and
- o Not place excessive burdens upon existing or planned service capabilities.

For the purposes of these criteria, determination of "excessive" detrimental impacts and/or burdens shall be made by the Town Board and/or Town Department heads, who in their professional capacity are of the opinion that such impacts and burdens go beyond the capacity of the infrastructural system and are not anticipated as part of any regularly scheduled capital improvements program.

B. Annexation Criteria

Some suggested annexation criteria are given below that can be used by Town officials when judging the initial merits of a proposed annexation. This is not intended to be an exhaustive list but only to illustrate some of the factors that need to be considered when a potential annexation proposal is put forth. These criteria can be used to give guidance to a particular annexor about the potential annexation of a particular piece of property. An

annexation proposal should be able to positively address the following issues.

- 1) Be contained within the Town planning and influence area; conforms to Wiggins' Comprehensive Plan, particularly the annexation policies.
- 2) Development proposals will be forthcoming and are generally compatible with existing uses.
- 3) Impact assessments are welcomed and financial means exist to conduct these assessments.
- 4) Existing utility infrastructure exists and can be expanded; coordination among various utility providers can be demonstrated.
- 5) Access is available or easily acquired.
- 6) Reasonable and prudent contiguity exists, in compliance with State law.
- 7) Special or unique environmental features or hazards have been recognized.
- 8) How the proposed annexation shall integrate with the existing community.

C. Park, Recreation, and Open Space Standards

Open space generally consists of both developed and undeveloped land, and standards or minimum requirements usually include specifications in a number of categories. There are no universal standards, although those developed by the National Recreation and Park Association (NRPA) are the most widely used. These are given below for developed open space and various recreational facilities. These national standards may not be appropriate for all situations, particularly for smaller communities like Wiggins. The best approach is to consider them as guidelines and develop flexible

open space and recreation requirements customized for each community.

Factors to consider when setting open space requirements include socioeconomic and demographic characteristics (household income, age, etc.), population density, land prices, regional preferences, size and location of parcels, level of improvements, topographic features of a specific site, type of ownerships, maintenance, and the functional purpose of the open space.

NRPA RECOMMENDED STANDARDS FOR LOCAL DEVELOPED OPEN SPACE

This classification system is intended to serve as a *guide* to planning—not as an absolute blueprint. Sometimes more than one component may occur within the same site (but not on the same parcel of land), particularly with respect to special uses within a regional park. Planners of park and recreation systems should be careful to provide adequate land for each functional component when this occurs.

NRPA suggests that a park system, at a minimum, be composed of a "core" system of parklands, with a total of 6.25 to 10.5 acres of developed open space per 1,000 population. The size and amount of "adjunct" parklands will vary from community to community, but *must* be taken into account when considering a total, well-rounded system of parks and recreation areas.

<i>Component</i>	<i>Use</i>	<i>Service Area</i>	<i>Desirable Size</i>	<i>Acres/1,000 Population</i>	<i>Desirable Site Characteristics</i>
LOCAL/CLOSE-TO-HOME SPACE					
MINI-PARK	Specialized facilities that serve a concentrated or limited population or specific group such as tots or senior citizens.	Less than 1/4 mile radius	1 acre or less	0.25 to 0.5A	Within neighborhoods and in close proximity to apartment complexes, townhouse developments, or housing for the elderly.
NEIGHBORHOOD PARK/ PLAYGROUND	Area for intense recreational activities, such as field games, crafts, playground apparatus area, skating, picnicking, wading pools, etc.	1/4 to 1/2 mile radius to serve a population up to 5,000 (a neighborhood).	15+ acres	1.0 to 2.0A	Suited for intense development. Easily accessible to neighborhood population—geographically centered with safe walking and bike access. May be developed as a school-park facility.
COMMUNITY PARK	Area of diverse environmental quality. May include areas suited for intense recreational facilities, such as athletic complexes, large swimming pools. May be an area of natural quality for outdoor recreation, such as walking, viewing, sitting, picnicking. May be any combination of the above, depending upon site suitability and community need.	Several neighborhoods. 1 to 2 mile radius.	25+ acres	5.0 to 8.0A	May include natural features, such as water bodies, and areas suited for intense development. Easily accessible to neighborhood served.

TOTAL CLOSE-TO-HOME SPACE = 6.25–10.5 A/1,000

Source: National Recreation and Park Association, *Recreation, Park and Open Space Standards and Guidelines*, p. 56. Copyright © 1983 by the National Recreation and Park Association, 3101 Park Center Drive, Alexandria, Virginia 22302.

NRPA SUGGESTED FACILITY DEVELOPMENT STANDARDS

ACTIVITY/ FACILITY	RECOMMENDED SPACE REQUIREMENTS	RECOMMENDED SIZE AND DIMENSIONS	RECOMMENDED ORIENTATION	NO. OF UNITS PER POPULATION	SERVICE RADIUS	LOCATION NOTES
Badminton	1620 sq. ft.	Singles - 17' x 44' Doubles - 20' x 44' with 5' unobstructed area on all sides	Long axis north-south	1 per 5000	¼-½ mile	Usually in school, rec- reation center, or church facility. Safe walking or bike access.
Basketball 1. Youth 2. High School 3. Collegiate	2400-3036 sq. ft. 5040-7280 sq. ft. 5600-7980 sq. ft.	46' 50' x 84' 50' x 84' 50' x 94' with 5' unobstructed space on all sides	Long axis north-south	1 per 5000	¼-½ mile	Same as badminton. Outdoor courts in neighborhood and com- munity parks, plus active recreation areas in other park settings.
Handball (3-4 wall)	800 sq. ft. for 4-wall, 1000 for 3-wall	20' x 40' - Minimum of 10' to rear of 3-wall court. Minimum 20' overhead clearance.	Long axis north-south. Front wall at north end	1 per 20,000	15-30 minute travel time	4-wall usually indoor as part of multi-purpose facility. 3 wall usually outdoor in park or school setting.
Ice Hockey	22,000 sq. ft. including support area	Rink 85' x 200' (minimum 85' x 185'). Additional 5000 sq. ft. support area.	Long axis north-south if outdoor	Indoor - 1 per 100,000 Outdoor - depends on climate.	¼-1 hour travel time	Climate important consideration affecting no. of units. Best as part of multi-purpose facility.
Tennis	Minimum of 7,200 sq. ft. single court. (2 acres for complex.)	36' x 78', 12' clearance on both sides, 21' clearance on both ends.	Long axis north-south	1 court per 2000.	¼-½ mile	Best in batteries of 2-4. Located in neighbor- hood/community park or adjacent to school site.
Volleyball	Minimum of 4,000 sq. ft.	30' x 60'. Minimum 6' clearance on all sides.	Long axis north-south	1 court per 5000.	¼-½ mile	Same as other court activities (e.g., bad- minton, basketball, etc.)
Baseball 1. Official 2. Little League	3.0-3.85 A minimum 1.2 A minimum	• Baselines-90' Pitching distance- 60 ½' Foul lines-min. 320' Center field-400'+ • Baselines-60' Pitching distance-46' Foul lines-200' Center field-200'- 250'	Locate home plate so pitcher (throwing across sun and batter not facing it. Line from home plate through pitcher's mound run east-north-east.	1 per 5000 Lighted-1 per 30,000	¼-½ mile	Part of neighborhood complex. Lighted fields part of com- munity complex.
Field Hockey	Minimum 1 ½ A	110' x 180' with a minimum of 10' clearance on all sides.	Full season - long axis northwest to southeast For longer periods, north to south.	1 per 20,000	15-30 minutes travel time	Usually part of base- ball, football, soccer complex in community park or adjacent to high school.

NRPA SUGGESTED FACILITY DEVELOPMENT STANDARDS

ACTIVITY/ FACILITY	RECOMMENDED SPACE REQUIREMENTS	RECOMMENDED SIZE AND DIMENSIONS	RECOMMENDED ORIENTATION	NO.OF UNITS PER POPULATION	SERVICE RADIUS	LOCATION NOTES
Football	Minimum 1.5A	160' x 360' with a minimum of 6' clearance on all sides.	Same as field hockey.	1 per 20,000	15-30 minutes travel time	Same as field hockey.
Soccer	1.7 to 2.1A	195' to 225' x 330' to 360' with a 10' minimum clearance on all sides.	Same as field hockey.	1 per 10,000	1-2 miles	Number of units depends on popularity. Youth soccer on smaller fields adjacent to schools or neighborhood parks.
Golf—Driving Range	13.5A for minimum of 25 tees	900' x 690' wide. Add 12' width for each additional tee.	Long axis south-west-northeast with golfer driving toward north-east.	1 per 50,000	30 minutes travel time	Part of golf course complex. As a separate unit, may be privately operated.
¼-Mile Running Track	4.3A	Overall width—276' length—600.02' Track width for 8 to 4 lanes is 32'.	Long axis in sector from north to south to north-west-south-east with finish line at northerly end.	1 per 20,000	15-30 minutes travel time	Usually part of high school, or in community park complex in combination with football, soccer, etc.
Softball	1.5 to 2.0A	Baselines—60' Pitching distance—46' min. 40'—women. Fast pitch field radius from plate—225' between foul lines. Slow pitch—275' (men) 250' (women)	Same as baseball.	1 per 5,000 (if also used for youth baseball)	¼-½ mile	Slight difference in dimensions for 16" slow pitch. May also be used for youth baseball.
Multiple Recreation Courts (basketball, volleyball, tennis)	9,840 sq. ft.	120' x 80'	Long axis of courts with primary use is north-south.	1 per 10,000	1-2 miles.	
Trails	N/A	Well defined head maximum 10' width, maximum average grade 5% not to exceed 15%. Capacity rural trails—40 hikers/day/mile. Urban trails—90 hikers/day/mile.	N/A	1 system per region	N/A	
Archery Range	Minimum 0.65A	300' length x minimum 10' wide between targets. Roped clear space on sides of range minimum of 30'. clear space behind targets minimum of 90' x 45' with bunker.	Archer facing north + or - 45°.	1 per 50,000	30 minutes travel time	Part of a regional/metro park complex.

NRPA SUGGESTED FACILITY DEVELOPMENT STANDARDS

ACTIVITY/ FACILITY	RECOMMENDED SPACE REQUIREMENTS	RECOMMENDED SIZE AND DIMENSIONS	RECOMMENDED ORIENTATION	NO. OF UNITS PER POPULATION	SERVICE RADIUS	LOCATION NOTES
Combination Sket and Trap Field (8 station)	Minimum 30A	All walks and structures occur within an area approximately 130' wide by 115' deep. Minimum cleared area is contained within two superimposed segments with 100-yard radii (4 acres). Shot-fall danger zone is contained within two superimposed segments with 300-yard radii (36 acres).	Center line of length runs northeast-southwest with shooter facing northeast.	1 per 50,000	30 minutes travel time	Part of a regional/metro park complex.
Golf 1. Par 3 (18 Hole) 2. 9-hole standard 3. 18 hole standard	• 50 60A • Minimum 50A • Minimum 110A	• Average length vary (800 / 100) yards • Average length—2250 yards • Average length—6500 yards	Majority of holes on north-south axis	 • 1/25,000 • 1/50,000	 ½ to 1 hour travel time	• 9 hole course can accommodate 350 people/day • 18-hole course can accommodate 500-550 people a day Course may be located in community or district park, but should not be over 20 miles from population center
Swimming Pools	Varies on size of pool and amenities. Usually ½ to 2A site.	<i>Teaching</i> —minimum of 25 yards x 45' even depth of 3 to 4 feet. <i>Competitive</i> —minimum of 25m x 18m. Minimum of 27 square feet of water surface per swimmer. Ratios of 2:1 deck vs. water.	None—although care must be taken in siting of lifeguard stations in relation to afternoon sun.	1 per 20,000 (Pools should accommodate 3 to 5% of total population at a time.)	15 to 30 minutes travel time	Pools for general community use should be planned for teaching, competitive, and recreational purposes with enough depth (3.4m) to accommodate 1m and 3m diving boards. Located in community park or school site
Beach Areas	N/A	Beach area should have 50 sq. ft. of land and 50 sq. ft. of water per user. Turnover rate is 3. There should be 3-4A supporting land per A of beach.	N/A	N/A	N/A	Should have sand bottom with slope a maximum of 5% (flat preferable) Boating areas completely segregated from swimming areas.

Source: National Recreation and Park Association, *Recreation, Park and Open Space Standards and Guidelines*. Copyright © 1983 by the National Recreation and Park Association, 3101 Park Center Drive, Alexandria, Virginia 22302