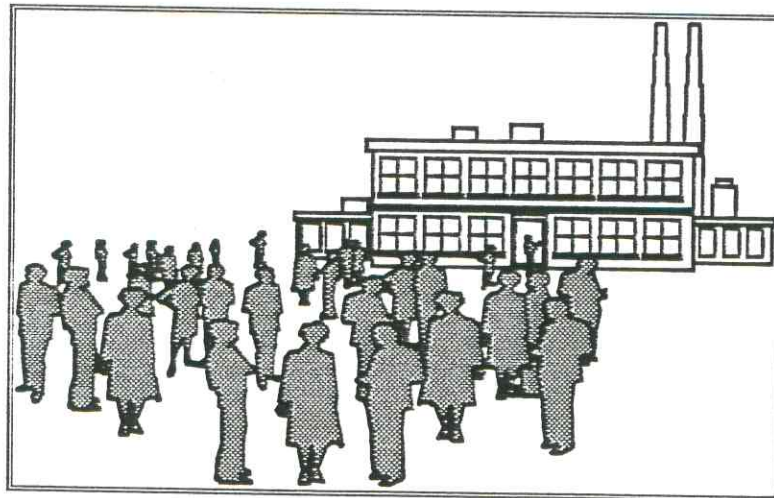


# LAND USE ANALYSIS AND PLAN

## TYRONZA, ARKANSAS



JUNE 1994

PREPARED BY EAST ARKANSAS PLANNING AND DEVELOPMENT DISTRICT

**LAND USE ANALYSIS AND PLAN**

**TYRONZA, ARKANSAS**

**JUNE 1994**

**PREPARED BY**

**EAST ARKANSAS PLANNING AND DEVELOPMENT DISTRICT  
P.O. BOX 1403  
JONESBORO, ARKANSAS 72403**

**PREPARED FOR**

**TYRONZA, ARKANSAS  
PLANNING COMMISSION**

## TABLE OF CONTENTS

SECTION	PAGE
PLANNING AREA	1
BACKGROUND	1
Geographic Setting	1
LAND UTILIZATION- CURRENT AND POTENTIAL	3
Existing Land Use	3
General	4
Residential - Existing	4
Residential - Proposed	6
Business - Existing	7
Business - Proposed	8
Public & Quasi-public Use - Existing	9
Public & Quasi-public Use - Proposed	10
Industrial - Existing	10
Industrial - Proposed	10
Streets & Highways - Transportation Communications and Utilities	11
Undeveloped Land and Flood Plain	12
GROWTH PREDICTIONS	15
Background	15
Population Projections	17
Growth Prediction - Population Absorption Capacity	18

## MAPS AND ILLUSTRATIONS

EXHIBIT	PAGE
Planning Area Map	2
Land Use and Development Potentials Map	13
Land Use Development Plan Map	14
Population Changes: Selected Communities in Poinsett County 1930 - 1990	16
Tyronza and Poinsett County Population History and Projection	19

## **LAND USE ANALYSIS AND PLAN**

**Tyronza, Arkansas --June 1994**

### **PLANNING AREA**

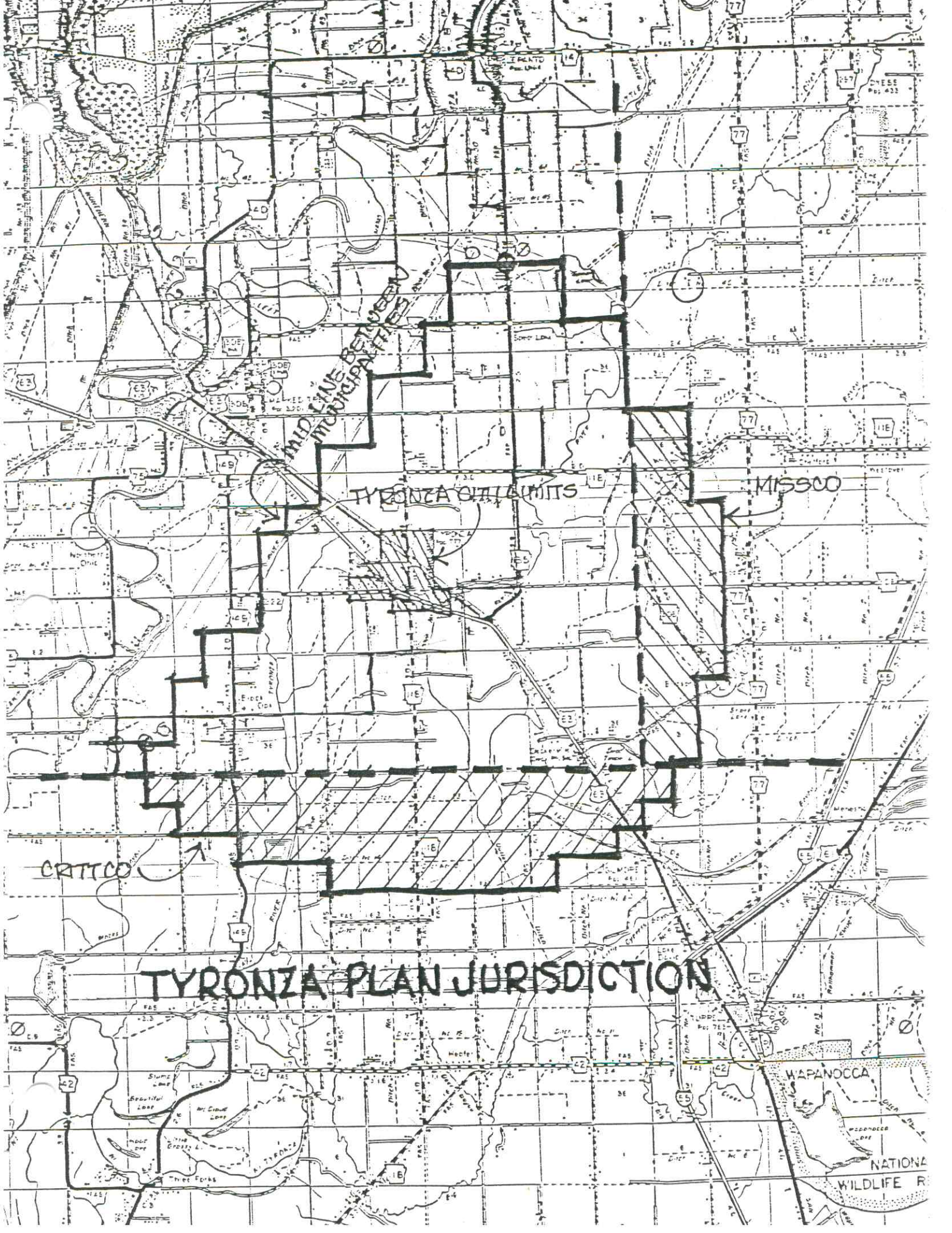
The planning statutes of the State of Arkansas, Act 186 of 1957, as amended, provide that the legislative body of a city of the first class with a planning commission shall be exclusive and shall include all lands lying within five (5) miles of the corporate limits. In the case of Tyronza, there are no other cities within five (5) miles that would alter this jurisdictional area. Further, the statute states that the planning commission shall designate the area within the territorial jurisdiction for which it will prepare plans, ordinances and regulations. The boundary of the area within which planning will take place, has been established as the city limits boundary of the City of Tyronza.

### **BACKGROUND**

#### **Geographic Setting**

Tyronza, a community of 858 people (1990 census) is located in Poinsett County, in Northeast Arkansas, approximately twenty-five miles northwest of West Memphis, Arkansas, thirty miles northwest of Memphis, Tennessee, and five miles southeast of Marked Tree, Arkansas. The city is served by Arkansas State Highway 63 and State Highway 118. Highway 63 is the major arterial through the area, connecting Memphis on the east to Jonesboro on the northwest. The Burlington Northern Railroad provides rail service through the city. While there are some commercial establishments in the city, the primary economic base of the community is agricultural.





TYRONZA CITY LIMITS

MISSOURI

CRITICO

TYRONZA PLAN JURISDICTION

WAPANOCCA

NATIONAL WILDLIFE R



The topography of the city is generally flat terrain, with the exceptions of lower lying flood plain in the northeast quadrant, north of the rail line; two small fingers running across agricultural land in the southwest quadrant; and some is found within a newly annexed area in the southeast sector of town, that contains a shooting preserve in a low-lying swampy setting. Land subject to flooding amounts to only about 24% of the incorporated area, with about sixty percent of the flood plain located north of the railroad tracks in a typically agricultural area.

Throughout the majority of the heavily developed parts of the city, topography is moderate. Drainage is adequate in most neighborhoods, at least the majority of the city is not located in a designated flood area..

## **LAND UTILIZATION - CURRENT AND POTENTIAL**

### **Existing Land Use**

The corporate limits of Tyronza encompass approximately 974 acres of land (or 1.52 square miles); approximately eighty-two percent of this area is vacant agricultural land. The developed areas of the community consist of about 180 acres of platted land.

- Residential use -- About 44% of the developed area is residential in nature.
- Commercial use -- Approximately 8% of the developed area is commercial. The older commercial area is located in the downtown area on Main street and on adjacent streets. Newer commercial uses are found on or adjacent to Highway 63, and support travel.
- Public and Quasi-public use -- Comprise about 6% of the developed area.
- Transportation, communications and Utilities -- Comprise about 11% of the developed area.
- Streets and highways -- Comprise 31% of the developed land.

### **General:**

In March of 1994, East Arkansas Planning and Development District staff and a consultant began a field check of the use of land within the city limits of Tyronza with particular emphasis on the newly annexed areas of the city. General field observations were made relating to land use mix, extent of development, natural and other features that might inhibit or encourage certain development to take place, neighborhood characteristics and housing conditions, street access and traffic circulation, and lay of the land. Newly annexed areas were surveyed and each use of land other than undeveloped was noted and plotted on a map, using scaled road distance from road intersection starting points.

Earlier field studies and data gathering had produced land use information and coded maps showing areas of residential use, public and quasi-public use, commercial, industrial, and vacant and undeveloped land. This information forms the basis for evaluating the current circumstances affecting land development opportunities within the city.

### **Residential--Existing:**

Comprising about 44% of the developed land area in Tyronza, residential development is varied, dependent upon the sector of the community.

New residential dwellings appear to be evolving primarily in the southeast portion of the city. The older residential segments of Tyronza were developed in periphery to the Burlington Northern railroad line, Highway 118, and Old Highway 63. Lot frontages vary anywhere from 50 linear feet in the older, established sections of town, to 100 linear feet in the new subdivisions.



There are two subdivisions northwest of Main Street, on the northern side of the rail line. One is the Chandler addition and the second is the Indian Village Subdivision. These areas are single family units in a working class neighborhood.

Residential development of Tyronza is fairly compact, with the majority of development occurring south of the rail line, north of State Highway 63, and east of State Highway 118 (Main Street). The school is located in this residential sector.

There is very good potential for additional residential development in this area, because of proximity to the school, and the generally attractive neighborhood conditions. While there are some scattered areas of multi-family development in this southeastern neighborhood, the majority of units are single family residences, and well maintained. The agricultural land to the east of Pecan and Ritter, Walnut and Emrich Drive, appears to be the most likely growth area for newer residences. There may be some potential for growth south of Highway 63, however, the school's location to the north of the highway, precludes many homeowners with small children desiring to locate across a major arterial.

There are several multi-family areas in Tyronza, scattered about the city. These are located within easy access to the major street system, generally in the older section of town, both east and west of Highway 118 and south of the rail line. In the southeast sector, scattered multi-family units appear among single family dwellings.

Mobile homes are located on the northern section of the city limits, east of Highway 118 and north of the rail line; a few scattered mobile homes are also found in the older northwest section of Tyronza, off Memphis and Chicasaw, and on the west side of the Main Street strip between Oak and Cotton. Several other mobile homes are scattered on the east side of Highway 118, near the central business district.

Other older areas of residential development are located east of Highway 118, south of the rail line near the business district; and south of the downtown area on the west side of Highway 118; this represents a narrow strip of residential in an older, established area. Behind this strip, lies agricultural land, which has some potential for development of residences, but which is not expected to be available for development through the foreseeable future. In addition, some flood plain penetrates this area, extending toward existing development. A drainage anomaly also exists in this area west of main and west of Memphis Avenue, in that the flow is northwestward, when normal gravity sewers in the city east of this boundary flows southeastward.

Land use conflicts in residential areas, appear to be minimal and not insurmountable. However, it was noted that some single family conversion to multi-family was noted in a primarily single family residential area. This can cause congestion and present a safety problems to nearby residences. However it should be noted that the conversion was on a street that functions much as a collector street.

#### **Residential--Proposed**

Development potential for residences should be more optimal in the area east of Main Street and south of Old Highway 63 more than any other section of the city, because of the quality of the existing housing stock and natural drainage patterns and the location of the elementary school. This facility provides recreational opportunity for the children, as well as serving as a public focal point for the community. A variety of housing types can be accommodated in this area. The agricultural land to the east of Pecan and Ritter, Walnut, Beley and Emrich Drives, appears to be the most likely growth area for newer middle income residential development, although the northern area east of Pecan also offers good development opportunities.

Potential for residential development is probably limited in the general area on the north side of the rail line, for several reasons: Development in this area is in a state of deterioration; appearance of the area is unattractive and in some places development is crowded; isolation from the main part of the town; and some swampy flood plain area close in on the east if Highway 118 just north of the railroad.

Limited potential exists to the west of Main Street south of Church and is dependent on two factors, these are:

- 1.) Land becoming available for development.
- 2.) Developing a pumping capacity to provide sewer service to the area. This land drains the opposite direction from the main part of the city east of Main Street.
- 3.) Flood plain intersecting portions of the area.

West of Main, in the Memphis Avenue area, again drainage flow presents a problem to sewer service for new development. In addition, the characteristics and general appearance of existing development suggest somewhat a lower market potential for the area, except filling in existing vacant lots with lower end priced residential units.

### **Business--Existing**

Commercial establishments in Tyronza are concentrated in or near the central business district (CBD), with the majority located adjacent to the Burlington Northern Railroad, Highway 118 and Old Highway 63. The CBD has a mix of older business establishments and industry that serve an agricultural economy.

Driving north on Highway 118, on the east side of the CBD, there is a church, a bank, a potpourri factory employing about seven persons, a diesel garage, a storefront church, a funeral home, several empty storefronts, used currently for storage, a chemical company



off the Main street, and a grain elevator. The rail line ends this segment of the CBD on Main street.

North of Highway 63 on Highway 118 (Main), on the west side of the Main Street of Tyronza, is the Post Office, a diner, a supermarket, a carwash behind a residence, a recreational video arcade, a second diner, and an old country music house that is used for auctions on occasions, and a laundromat. Heading west by the rail line, is an oil company on Frisco Street. North of the rail line there is an automotive maintenance and repair service on the west side of Main Street.

Home based businesses in Tyronza include a craft shop and an accounting business that is open seasonally.

Adjacent to Highway 63, at the Highway 118 intersection, there is a new Coastal gas station and grocery store, which is accessible to travelers and commercial traffic traveling U.S. 63. On Highway 63, midway between Main Street and Church Street, is a cafe.

From observations made in April of 1994, business or commercial uses make up about eight percent of the developed area in Tyronza, with the vast majority of this concentrated in the central business district which covers an area on either side of Main Street south of the railroad to Oliver and south along Main Street to Oak.

### **Business--Proposed**

Potential for additional commercial services in Tyronza, would appear to be highway oriented, locating on land in proximity to Highway 63. There may also be some fill-in business and business redevelopment locating in the central business district, if in the next decade the community's base expands creating a demand for more personal and retailing

services. North of the railroad tracks is not projected to be a location for much future business activity because of the isolated location. and the general nature of development potential in the area. The present business/commercial situation, will in all probability, remain pretty much as it appears today for the near future - with a slight shifting of interest toward U.S. 63.

#### **Public and Quasi-public Use--Existing**

City Hall is located in the central business district, on Main and Junction Streets; the police station and fire department are located directly behind the City Hall facility on Junction. A telephone facility is located on Junction Street about 800' west of the fire station. The Post Office is located on the west side of Main Street near Beley Drive, only a short drive from the intersection with Highway 63. The public school property is found directly northeast of the intersection of Highways 63 and 118. The City's sewage treatment lagoon site is located north of Highway 63, at the southeastern City limits.

There are no park facilities in Tyronza at the present time; there is an area of maintained green space in the CBD area, however, this is apparently private property. The playground at the elementary school serves as a public area for games. The city is interested in eventually developing a park site in the community. Potential sites that have been discussed are in the northwest sector, south of the rail line, and in the southeast sector, near school property. These sites appear not only to be convenient for present residence, but well located to serve projected growth areas.

Public and quasi-public use represents about six percent of the developed land in the area.

### **Public and Quasi-public Use--Proposed**

No significant changes are projected in the foreseeable future in this area, except for the development of park sites in and around the city.

### **Industrial--Existing**

Major industrial development is found near, but outside the Tyronza city limits, just east of the city's sewage treatment site. The only industrial activities within the limits are found in the central business district, where there is a grain elevator south of the rail line, a chemical storage site for agricultural chemicals; and further south, a small industry that produces potpourri. There is an industrial site on the northwest sector of the city, south of the rail line, that was formerly an active cotton gin; however over the past several months, this site has been closed and is used for storage. The percentage of the developed area devoted to industrial uses has been calculated with commercial activity, since they represent only a small portion of the total developed area in the city.

### **Industrial--Proposed**

South of Highway 63, agricultural activities should remain the predominant potential use of land over the foreseeable future. Some industrial potential exists, however, south of highway 63 to the east of Highway 118, because of highway access and the lack of other land use conflicts. This location could serve some light industry. Even though, drainage does not present a convenient or economical way to serve the area with city sewer, package sewer treatment facilities could be provided for non industrial waste treatment. Another drawback to the area is that it cannot be served by a rail spur. In fact there is little area remaining for development in the city limits that could be easily or economically served by a rail spur.



To the east of U.S. 63, along Church Street S.W., potential also exists for industrial development. Some of the same limitations as those cited for the area south of U.S. 63 are also applicable.

Probably the next best location if rail service is necessary is in the vicinity of Weona Gin southeast of the city along U.S. 63, provided it is out of the flood plain area.

### **Streets and Highways - Transportation, Communications, and Utilities**

This category of land use accounted for approximately thirty-one percent of the developed land in the city for streets and highways, and about eleven percent for the transportation, communication and utility uses. There is not much to say about these facilities since their locations are influenced by many factors, the least of which are: state requirements; existing right-of-ways, easements, or traveled ways; the practicality of construction; and the need for access. In some cases, the railroad for example, the facilities were put in place and activity grew up around the availability of high volume commodity transportation services.

The older sector of the city is based somewhat on a grid system, intersecting with a diagonal street following the rail line. In the northern sectors, there are few developed streets, primarily due to the flood plain and the agricultural land that is undeveloped. There is little street development south and west of the central business district, primarily because of agricultural use and unavailability for development among other things. Projected needs for residential access will be determined by future development, particularly in the southeastern residential areas of the city.

### **Undeveloped Land and Flood Plain**

Agricultural land use comprise the majority of this category, amounting to nearly 800 acres or eighty-two percent of the City's incorporated area. Most of the agricultural land is found in those areas west of Main (Highway 118) and northwest of U.S. 63; a small portion is located south of U.S. 63.. As mentioned earlier, the flood plain area, that area shown on the flood insurance maps as presenting a potential flood hazard, amounts to about twenty-four percent of the incorporated land or 234 acres. About sixty percent of the flood plain is located north of the rail line; a small portion is located in the undeveloped agricultural section west of Highway 118 and south of the sewage treatment plant, south of Highway 63, which is a hunting preserve. The latter flood plain is located near Ditch Number 6.

The map that follow, shows the land in Tyronza as presently utilized, and the delineation of development potentials that exists within the undeveloped areas adjacent to existing development. This map is titled *Existing Land Use and Development Potentials Map*. Following the Development Potentials Map the land development policy of the City of Tyronza is depicted on the *Land Use Development Plan Map*.

## GROWTH PREDICTIONS

### Background

Numerous factors determine the growth of a community, and through what process community change takes place. For basic land use planning, a review of general trends in population growth over several decades will provide a simplified but adequate picture of how the community might develop over a given future period. Growth projections are based not only on past trends in population change, but on anticipated future variables and local knowledge as well.

Growth projections have varying degrees of accuracy, dependent on the accuracy of basic assumptions, the availability of background information and the influence of unknown future variables. Most projections are based on the underlying assumption that such factors as the form of government, national economic situation, social structures and other similar elements will remain somewhat constant over the projection period. Consequently, the accuracy of projections decrease as the time period for the projection increases. About five to ten years is the maximum that should be looked at for a given prediction of future conditions.

Population data were obtained from the U.S. Department of Commerce, Bureau of the Census between 1930-1990 for Poinsett County and communities in proximity to Tyronza in the county. These historical trends can be seen in the following table. Interpretation of these data would indicate that populations have remained relatively stable or have grown in the rural area towns, while the county has seen declines in overall population because of agricultural change.

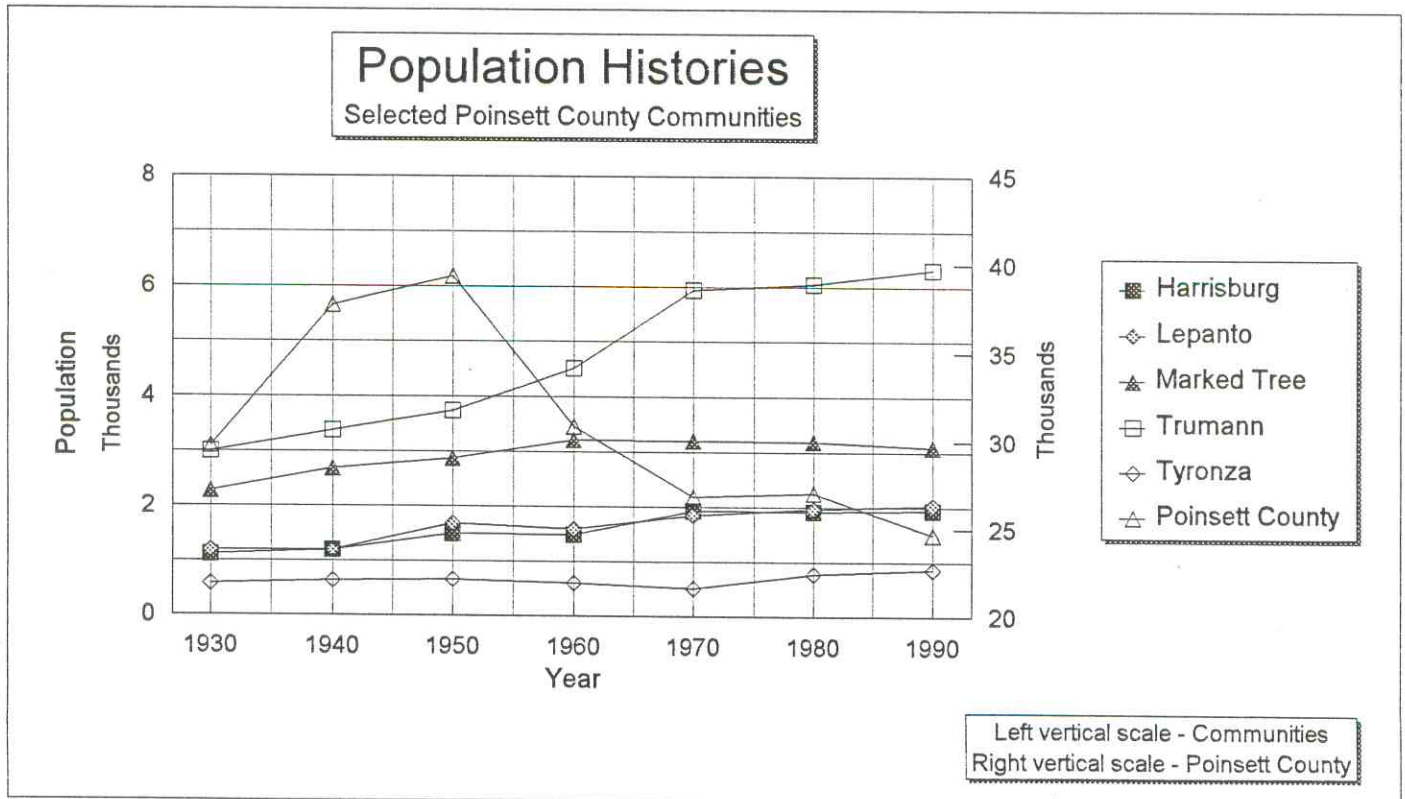


## Population Changes: Selected Communities in Poinsett County 1930-1990

Geographic Area	1930	1940	1950	1960	1970	1980	1990
Poinsett County	29,695	37,670	39,311	30,834	26,843	27,032	24,664
Harrisburg	1,111	1,193	1,498	1,481	1,931	1,921	1,943
Lepanto	1,195	1,198	1,683	1,585	1,846	1,964	2,033
Marked Tree	2,276	2,685	2,878	3,216	3,208	3,201	3,100
Trumann	2,995	3,381	3,744	4,511	5,938	6,044	6,304
Tyronza	573	639	656	601	510	777	858

Source: U.S. Department of Commerce, Bureau of the Census

Geographic Area	%Change 1930-1940	%Change 1940-1950	%Change 1950-1960	%Change 1960-1970	% Change 1970-1980	% Change 1980-1990
Poinsett County	26.86	4.36	-21.56	-12.94	0.70	-8.76
Harrisburg	7.38	25.57	-1.13	30.38	-0.52	1.15
Lepanto	0.25	40.48	-5.82	16.47	6.39	3.51
Marked Tree	17.97	7.19	11.74	-0.25	-0.22	-3.16
Trumann	12.89	10.74	20.49	31.63	1.79	4.30
Tyronza	11.52	2.66	-8.38	-15.14	52.35	10.42



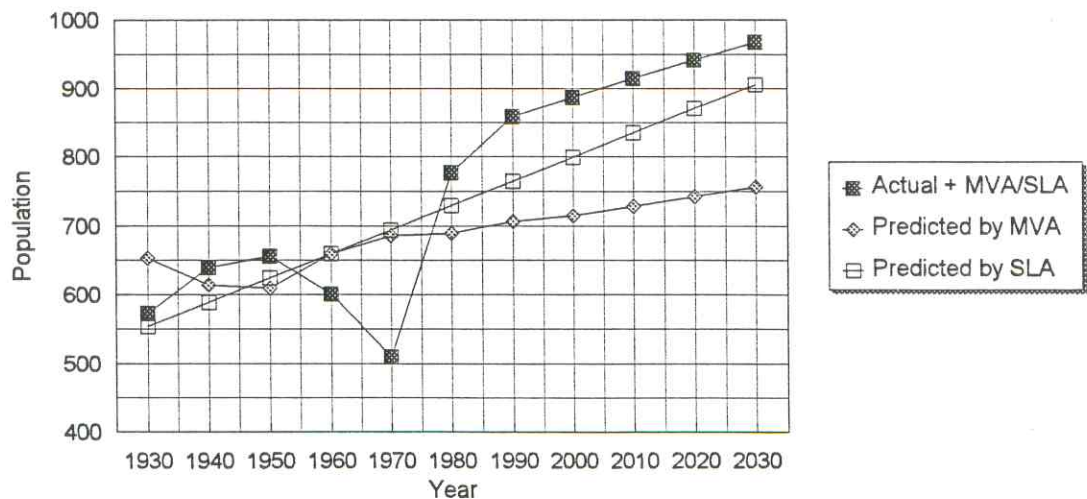
**Tyronza and Poinsett County**  
**Population History and "Straight Line" (Plane of Best Fit) Predictions**  
**Multivariate Analysis**

Tyronza (Predicted)	Tyronza (Actual)	Year	Poinsett County (Actual)
653	573	1930	29,695
614	639	1940	37,670
609	656	1950	39,311
660	601	1960	30,834
686	510	1970	26,843
689	777	1980	27,032
706	858	1990	24,664
715	886	2000	23,887
729	914	2010	22,143
742	942	2020	20,399
756	968	2030	18,655
Numbers in italics represent projections.			

Regression Output:		
Constant		0
Std Err of Y Est		122.0046
R Squared		0.143498
No. of Observations		7
Degrees of Freedom		5
X Coefficient(s)	0.422952	-0.00549
Std Err of Coef.	0.136258	0.008534

**Tyronza Population History and Projections**

1930-2030



MVA means Multivariate Analysis  
SLA means Straight Line Analysis

### Population Projections

The historic trends, while showing some overall stability among the communities of the county, Tyronza has experienced some noticeable variations in growth from 1930 to 1990. Given this trend; the relatively small population of the community, less than 900 persons as of the last Census; general trend toward a decline in business development in the community; and in general, limited availability of land for development - not for sale, is costly to develop considering drainage areas related to current sewer service, and floodable area: makes predictions of future growth difficult. There is little stability in past trends, or any major events on the horizon that would offer optimism with regard to future potentials and provide insight as to what may reasonable happen over the next five to ten years.

With this in mind, in the absence of a clear direction to predict what might occur, it was concluded to show a modest but steady increase in the population of Tyronza over the next ten to thirty years. This prediction was developed from a combination of two statistical approaches used to determine a trend line for a set of data. In actuality, the projection is closer to trend line established by a straight line analysis of the available data.

This method shows an increase in the city's population from 858 persons in 1990 to around 940 persons by the year 2010; certainly conservative, but under the circumstances defensible. Fortunately, areas attractive for new growth, from the standpoint of maintaining the level of affordability that presently exists in Tyronza, is for the most part limited. This will have a dampening affect on some forms of speculative development, unless the level of affordability of the population increases. On the other hand, it may not discourage the public sector from improving the lower end housing stock.



### Growth Prediction - Population Absorption Capacity

In the final analysis, not much may happen in the community without an injection of capital in the form of higher wage earners; more goods based manufacturing employment opportunities locating in the community; and an expansion of retail and service establishments, the later a function of disposable and discretionary income and growth in employment in the goods producing sector of the economy.

The area with the best potential for growth, that area located south and east of existing development from Oak to School Street, contains about 85 to 90 acres and can absorb close to 250 single family homes. This is roughly equivalent to a population of 700 persons, or nearly a growth factor of eighty-two percent. Adding in other less potential areas that might be developed by the public to upgrade low end housing, could make space available for half again as many persons. All in all, based on the predictions cited here, there is sufficient area within the city limits of Tyronza for growth to take place, without much concern over areas of potential flooding. Sewer flow however, may be a concern in some areas.

Like residential, there are few limitations for the expansion of business related activities and public uses such as parks or other public buildings. There is sufficient space available in the CBD and elsewhere in the community for the expansion of business uses, particularly in that area south of the railroad.

Industrial may need some though or a higher level of planning due to the nature and expectations of industry, expense of serving the area with sewer, and the difficulty of providing railroad spur service to potential businesses.

The following table and graph depict the growth prediction for the City of Tyronza.