

CYCLE ONE

COMPREHENSIVE PLAN SPRING TOWNSHIP

CRAWFORD COUNTY, PENNSYLVANIA

JUNE 1979

This plan was prepared under the policy guidance from the Spring Township Planning Commission. The Commission's membership is as follows:

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Maggie Steigerwald,	Vice Chairman
Irada Wensel,	Secretary
Bonnie Egli	
John Greene	
Helen Miehle	
Charles Mostoller	
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Members of the Commission who resigned during the planning period: Jack Helmbreck, James Hotchkiss.

This plan was authorized for preparation by the Board of Township Supervisors of Spring Township:

Martin A. Neidermeyer,	Chairman
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Preparation of this document was financed in a substantial way through grants from the Appalachian Regional Commission.

Technical assistance was provided Spring Township by the staff of the Crawford County Planning Commission. Staff members participating in the work were as follows:

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MAPS

Three County Regional Map
Existing Land Use Map
Land Use Plan

3
Cover Jacket
Cover Jacket

NOTE: To obtain a summary of the meaning of this plan
read the Issues, Objectives, Policies, Projects
and Programs Section of this Report.

RESOLUTION
OF THE BOARD OF TOWNSHIP SUPERVISORS
OF SPRING TOWNSHIP, CRAWFORD COUNTY, PA.

WHEREAS, the Spring Township Planning Commission has been created to consider, among other things, long range plans for the growth and development of the Township; and

WHEREAS, the Planning Commission has used the services of the Crawford County Planning Commission staff and various studies, surveys and analyses of the Township have been completed and discussed in public meetings and a series of Township development objectives and policies have been formulated by the Planning Commission; and

WHEREAS, plans and policies affecting the future of Spring Township have been developed and adopted for recommendation by the Planning Commission to this Board; and

WHEREAS, the Spring Township Supervisors have been represented at the regular meetings of the Planning Commission through the course of the preparation of a comprehensive plan; and

WHEREAS, this Board has reviewed and approved the Background Information; the Regional Context; the Population Forecasts; the Plan Objectives, Policies, Projects and Programs for future land use, roads, community facilities and services, and housing; the priorities for plan projects and programs; the Existing Land Use map and the Land Use Plan map; and

WHEREAS, it is the responsibility of the Township Supervisors to exercise foresight in guiding the affairs of the Township; and

WHEREAS, it is in the best interests of the Township to establish policies for management of its growth and development; and

WHEREAS, the SPRING TWP. SUPERVISORS on September 25, 1979 held a public hearing on a Comprehensive Plan of Spring Township and provided the results of that public hearing to the Board;

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF SPRING TOWNSHIP, CRAWFORD COUNTY, PENNSYLVANIA:

That the document, Spring Township Comprehensive Plan dated June, 1979, shall be the guide for the future development of Spring Township.

ADOPTED THIS 1st DAY OF October, 1979

Martin A. Neidermeyer
Martin A. Neidermeyer, Chairman
Spring Township Supervisors

ATTEST:

Mary Lou Lenhardt
Mary Lou Lenhardt, Secretary
Spring Township Supervisors

INTRODUCTION

Spurred by the U. S. Steel Corporation's proposal to build a fully integrated steel making plant at the shores of Lake Erie only ten miles from its boundary, elected officials and community leaders of Spring Township established a planning commission and made a decision to develop a comprehensive plan for the Township. The Appalachian Regional Commission (ARC) responded admirably to pleas from state and county officials and agreed to fund a planning program for a group of municipalities in western Crawford County to assist them in preparing plans in anticipation of growth impacts expected from this industrial complex.

U. S. Steel officials estimated there would be 8,500 workers in their "greenfield" plant by 1988, and the number of construction workers at the site was estimated at 10,500 during the peak year. The planning grant provided by ARC was administered by the Northwest Pennsylvania Regional Planning and Development Commission (NPRPDC) which also handled a regional transportation study in connection with the expected impacts of U. S. Steel's proposal. The grant was received locally by the Crawford County Planning Commission, whose staff acted as consultant for the Spring Township Planning Commission. This planning report was prepared out of the cooperative work between the County's planning staff and the Commission. The plan objectives and policies, its recommended programs, projects and physical plans all were decided by the Spring Township Planning Commission and are considered to be representative of the people in the Township.

The report is named a cycle one plan because it was felt that time was not on the Township's side. Normally elaborate analyses of information and maps suitable to be printed in a plan report take considerable time in preparation. Expecting a steel mill to be built in the near future, and the Township having no plans or regulatory controls to handle growth, it was considered most important to digest basic facts about the Township; take stock of local values and determine what the residents really cared about in terms of their Township's environmental character; and finally, establish a series of objectives and policies about community issues. The preceding sentence describes in a brief way the comprehensive planning process. The term "cycle one" is meant to convey that data gathering, analyses and mapping were not done exhaustively but rather only adequately. It was most important to get a quick idea of what the Township's destiny should be relative to expected and sudden growth impacts and to establish objective policies and programs that would enable public officials to exercise some control over events.

This plan is bound as it is, in a loose leaf notebook, so that it can be supplemented in future planning cycles. But the plan as it is presented here provides the giant first step towards dealing responsibly with the immediate issues of growth and development.

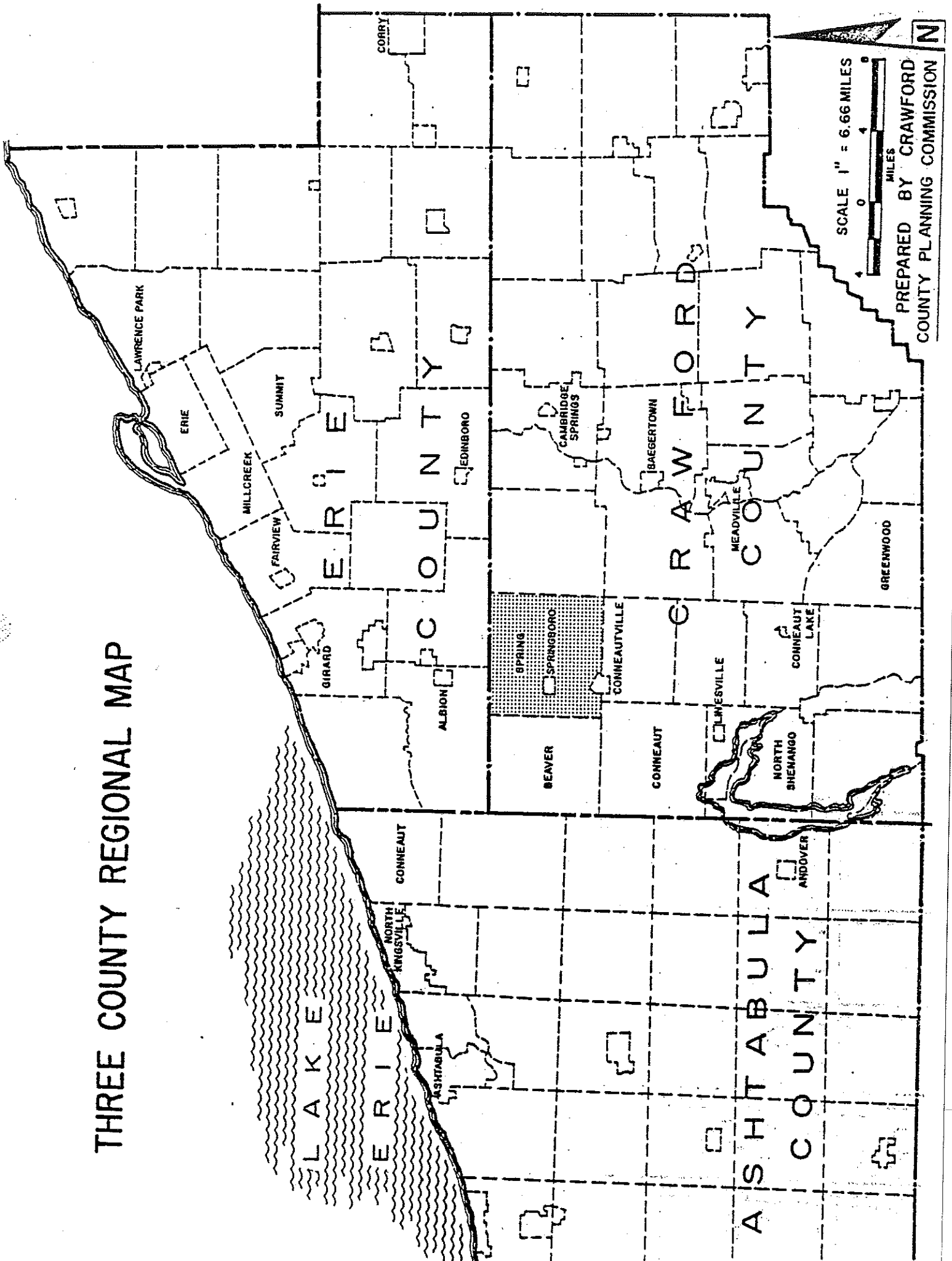
This comprehensive plan report is organized into four areas:

- Introduction
- Background Information
- Regional Context
- The Plan

In the report's map jacket two maps can be found: Existing Land Use and the Land Use Plan. Many more large maps were completed during the planning process, and these maps are on file with municipal officials and in the offices of the Crawford County Planning Commission. (See Appendix 2)

For the reader who is not aware of the Township's location in relation to the balance of Crawford County and neighboring counties to the north and west a Three County Regional Map is provided on the following page.

THREE COUNTY REGIONAL MAP



BACKGROUND INFORMATION

PRELIMINARY REMARKS

The background information phase of the planning process is particularly important because it gives the planning commission members and those citizens of the Township who attend the commission's monthly meetings the opportunity to get to know the community planners who provide the technical leadership in the process. It is important that the relationship with the professional planner be an open and cordial one for it is the planner's task to translate the people's values into alternative plan ideas which can be tested through the meeting process. This report would assert that rapport between citizen and professional planners was achieved in the planning process and that issues of growth and development in the Township were dealt with in reasonable depth.

At this early point in the report it is considered well to make a few general observations:

There is an overriding concern in the Township to retain what the Commission members described as rural character. This would appear to translate to the conclusion that the members are concerned about what is built in the Township; where it is built and how much is built.

On the other hand, there is a reluctance on the part of the Commission members to have government interfere too greatly in the lives of people. It is true that these two values are partially contradictory. Yet it is very natural for Township residents to be faced with a dilemma such as this.

The basic industry in the Township is farming. Many residents have full-time employment in non-farm jobs, but these are nearly always located outside of the Township. The strength of full-time farming activity has eroded measurably since the Second World War. There is the fear that this erosion will continue and with it a way of life which has been the most significant characteristic of the Township.

There exists a desire to increase the economic base of the Township by accepting new growth that would strengthen the Township's economy. Of course this desire is conditioned by the feeling that, new development be compatible with the Township's rural character.

EARLY HISTORY OF SPRING TOWNSHIP

The first settlers in what is now Spring Township arrived in 1797. Crawford County as a municipal unit was not established until the year 1800. There were only 11 townships designated as legal entities in the County in 1800. "Today's" Spring Township was part of the original Beaver and Cussewago Townships, and was "carved" out of them in 1829.

In the first days, around 1800, only a few individuals possessed tracts of land and the balance of the land was owned by the Pennsylvania Population Company and the Holland Land Company. There was relatively little settlement throughout the Township until 1815. Between 1816 and 1830 immigration into Spring Township was brisk, and by 1830 every tract of land was occupied by two or more families. Tracts were normally four hundred acres in area. Immigrants, of course, came from the East.

Settlers listed as occupying land prior to 1800 are as follows: Alexander and William Power, Samuel Fisher, Christopher Ford, James Orr, James McNamara, John Foster, Samuel Thompson, Samuel and Rebecca Simpson, Samuel McKee, George Nelson, Henry Mott, James Smiley, William and John Gardner, Andrew Parker, Martin Montgomery, John Fleming, David and James Thompson and Henry Cook.

Among the settlers who arrived during the 1816-1830 period, the following are listed: the Bowmans, Powells, Halls, Wills, Sturtevant, Woodards, Woods, Sheldons, Temples, Ponds, Hotchkisses, Baldwins, Mylers, Wetmores, Greenes, Jenks, Bolards, Thomases, Rodgers, Sperrys and the Rundels.

The first grist mill in the area was erected by Alexander Power in 1799 along the Conneaut Creek in what is today Conneautville. A second such mill was built very close to the first one in 1805. The first saw mill was built north of present day Conneautville in 1801 by Samuel Fisher. In these early days the settlers did a brisk business in lumber, selling ash, oak and hemlock log, in particular. The first school, established in 1812, was a log schoolhouse.

Settlements were established at Rundel and Hickernell's Corners. Rundel in the mid 19th century contained a post office, store, steam saw mill, cheese factory, blacksmith shop, wagon shop, and a hand rake factory. Hickernell, founded by Abraham Hickernell, had a post office as late as 1905. Perhaps the most renowned enterprise in the Township was established at Shadeland. The Powells, who settled here, over a series of generations developed a stock farm whose fame was known throughout the world principally for the horses bred there. This stock farm had its best years in the 1880's. Early churches were established in the vicinity of Shadeland and at Hickernell Corners. The Spring Grange was established in 1874.

← Same title to today

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Two boroughs were organized and separated from Spring Township. In 1844 Conneautville was established from lands taken out of Spring and Summerhill Townships, and in 1866 Springboro was established. Thus, the area of Spring Township today is 45.7 square miles. Three important transportation corridors traversed Township lands in the 19th century. The Erie-Beaver Canal was opened in 1845. It paralleled the course of Conneaut Creek. West of Conneaut Creek the Erie to Pittsburgh Railroad was opened in 1866. Years later, in 1885, what today is known as the Bessemer & Lake Erie Railroad was established. It was routed through Spring Township along the tow path of the old Erie-Beaver Canal. Of these three, only the Bessemer Railroad remains a useful transportation facility today.¹

PHYSIOGRAPHIC DESCRIPTION

Spring Township is located in northwest Crawford County. It is positioned against the Erie County boundary sharing this line with both Conneaut and Elk Creek Townships in Erie County. It is separated from the Ohio State line by approximately 6 miles. One Crawford County township separates Spring Township from Ohio and that is Beaver Township. Spring Township's geometric shape is almost that of a square: 7 miles in the east-west direction and 6.6 miles in the north-south direction.

Although the Township is basically rural, the western third of its territory is dominated by the Conneaut Valley which in turn strongly introduces the world of commerce and industry into township life. The Conneaut Creek, the largest stream in the Township, on its journey north to Lake Erie passes through the entire western section of Spring Township. As mentioned in other portions of this report, two railroads and a major state highway are located in the Conneaut Valley as well as two boroughs, Springboro and Conneautville, both of which "cut away" parts of the Township, establishing their own identity.

Entering the Township from Beaver Township on the west, the average elevation of the land is 1060 feet above sea level. The terrain then drops to form the Conneaut Creek Valley. The Creek enters the Township at its southern boundary at an approximate elevation of 935 feet. In its journey north to Lake Erie, the Creek leaves the Township at the Erie County boundary at the point where the northeast corner of Beaver Township is positioned; the Creek's elevation at this point is approximately 860 feet. Going eastward from the Conneaut Creek Valley one climbs a varying slope and encounters the dominant land form in the Township, an expansive plateau-like area on which, where the land is suitable, most of the Township's farming activities occur. The east slope out of the Conneaut Valley averages an 8 percent grade. Many streams transect the slopes flowing down into the Conneaut Creek. A rough count from U.S.G.S. maps show about 35 such tributary streams in Spring Township alone. All of these streams, many of them in very incisive valleys, make the Conneaut Valley topography in the Township very attractive.

On the plateau land east of the Valley there is a drainage divide which at least has academic significance. This divide is essentially in the geometric center of the Township and runs from north to south. The streams to the west of this divide and in the northcentral part of the Township drain to the Conneaut Creek and hence to Lake Erie. The streams to the east of this divide drain to Cussewago Creek and subsequently south to French Creek and on to the Mississippi River. The west branch of Cussewago Creek, in fact, crosses just inside the Township's northeast corner and drains a portion of the land in this corner. The Rundelltown Creek and Carr Run drain the eastern half of the plateau; they empty to Cussewago Creek east of the Township. The northcentral area of the Township drains to Temple Creek which runs into Erie County and joins Conneaut Creek at Albion.

The elevations on the western edge of the plateau range from 1250 to 1100 feet. On the eastern edge they are in the vicinity of 1200 feet. In the northeastern corner of the Township near where the west branch of the Cussewago Creek flows, there is a relatively large wetland area. As was implied by the comments made relative to the many tributaries of Conneaut Creek, the Township is characterized by the existence of many, many streams. The highest land elevations are near the eastcentral portion of the Township occurring where gentle hills swell from the plateau land forms. Two of these highest hills have elevations of 1340 and 1280 feet.

THE EXISTING USE OF LAND

Perhaps the most important collection of information necessary to the preparation of policies and plans for a municipality is determining and mapping the existing use of land. There is nothing mysterious about this undertaking; the most important thing is to do it accurately and thoroughly. A land use survey of the entire Township was completed by the fall of 1977, and is reflected on a property line base map of Spring Township. This map is provided in the report's cover jacket. The map tells the biggest story, yet some words of explanation are necessary. Land designated as agriculture includes areas where currently or at least within the past few years there has been crop production or pasturage. Woodland and brush designations were given to areas that were in forest cover or that have been going to brush because of a cessation of farming uses. Semi-public codings were assigned to uses generally open to the public but not owned by the public such as churches, grange halls, etc. A word of explanation is necessary on residential uses. Where a dwelling is situated on a lot of approximately five acres or less the entire parcel is classified as residential. Where a dwelling is located on a larger parcel - say a one hundred acre farm - only the area surrounding the house and accompanying out buildings, including about one acre, was coded as residential. Furthermore, residential structures were coded to a finer breakdown. This breakdown includes: farm complexes, rural residences and mobile homes and is recorded on work maps in the County Planning Office.

The very meaningful thing about the land use survey is to take the time to collect all this information and to display it on a table size map. This very simple survey and recording then begins to take on some meaning. As one would suspect most building development occurs along the better constructed roads in the Township. Route 18 is the Township's "strongest" road, and it is the setting for the greatest concentrations of development in the Township. The road and its relationship to development is a theme that will run through much of the content of this comprehensive plan. Note also, especially where a gridiron pattern of roads appears in the central and east central portions of the Township, that residential and agricultural uses occur along the roads, and the interiors of each grid are dominated by woodlands as if to indicate early settlers and the subsequent generations of farmers started at the roads, worked back, and finally cleared enough land to farm handily and stopped. It is as though each grid, each superblock so to speak, has at its center a wooded preserve for rural recreations such as hunting.

The land use accounts table, Table 1, provides figures for the existing use of land. Fifty-two percent of the Township is in agricultural use, forty-three percent in woodland and brush. The Township is surely rural; the figures prove conclusively what every resident knows instinctively.

Land parcelization statistics as shown in Table 2 again prove the rural character of Spring Township. Of the parcels in the Township, 35 percent are over 45 acres in size. Another 28 percent of the parcels are between 10 and 45 acres. Most people are aware that the "agricultural" size in terms of many government programs begins at 10 acres. Accordingly 63 percent of the parcels in the Township are "agricultural" in size. Table 3 "breaks out" parcels where the landowner resides out of the county. Of the parcels in the Township representing 21 percent of all of the acreage in the Township, 16 are in the hands of "outside" interests. About 10 percent of all parcels in the 10 to 100 acre range in Spring Township are owned by persons outside Crawford County. Parcels of this size, it would seem, are especially amenable to speculative development.

The Existing Land Use Map in the report's jacket shows the alignment of the neglected and unused Penn Central Railroad now called Conrail. This right-of-way (R/W) generally parallels the right-of-way of the Bessemer & Lake Erie Railroad through the Conneaut Valley. It is technically not abandoned. The trustees of the bankrupt Penn Central Railroad retain the ownership of this R/W; they intend to market this land including the material on it to the highest bidder, and they want to handle any land transactions in large acreage arrangements. The fate of this somewhat unique linear strip of land is not clear, but it does not appear that this land will revert to adjoining property owners.²

SPRING

TABLE 1

LAND USE ACCOUNTS FOR THE EXISTING USE OF LAND
SPRING TOWNSHIP - FALL 1977

USE CATEGORY	ACRES	SQUARE MILES	% TOTAL
Woodland/Brush	12 454	19.5	43.2 %
Agriculture	15 122	23.6	52.3 %
Public/Semi Public	127	.2	.4 %
Industrial/Commercial	66	.1	.3 %
Residential (1)	500	.8	1.8 %
Roads (91.15 miles)	552	.9	2.0 %
TOTALS	28 820 (2)	45.1	99.9 %

Notes: (1) Approximately 500 lots averaging 1 acre each.
 (2) The total acreage figure in this table is the sum of all use categories taken from the Existing Land Use Map. The township area as figured from the Spring Township base map prepared by the County Planning Commission staff is 28,783 acres and was computed by subtracting the areas of Springboro and Conneautville (1,032 acres) from the Township (29,815 acres). A publication entitled: Crawford County Municipal Areas indicates Spring Township's area to be 29,247 acres. The Conneaut School District uses this figure in its state aid ratio formula.

Source: Crawford County Planning Commission (CCPC) staff calculation.

TABLE 2

LAND PARCELIZATION STATISTICS - INVENTORY BY PARCEL SIZE
SPRING TOWNSHIP - JANUARY 1979

PARCEL SIZE IN ACRES	NUMBER OF PARCELS	PERCENT PARCELS IN TWP.	ACRES IN CATEGORY
Less than 1 Acre	69	9.6 %	---
1.0 - 1.5	59	8.3 %	70
1.6 - 2.5	34	4.8 %	72
2.6 - 3.5	29	4.0 %	87
3.6 - 5.0	36	5.0 %	167
5.1 - 10.0	44	6.2 %	344
10.1 - 45.0	197	27.5 %	5 235
45.1 - 100.0	193	27.0 %	13 207
100.1 - 200.0	48	6.8 %	6 211
Over 200	5	.8 %	2 130
TOTALS	714	100.0 %	27 523

Notes: Each property ownership (deed) is counted separately.

Acreages are as taken from the 1978 county assessment records.

Statistical area for township is given at 29,247 acres, or 45.7 square miles. The discrepancy between the statistical area of the Township and the total acreage in the 4th column of this table is attributed to the nature of the county's assessment records. This tabulation is 1,724 acres under the statistical area of the Township, or a difference of 5.9 percent.

Source: Crawford County Planning Commission (CCPC) staff calculations.

TABLE 3

LAND PARCELIZATION STATISTICS
PROPERTY OWNERS RESIDING OUTSIDE OF CRAWFORD COUNTY
SPRING TOWNSHIP - JANUARY 1979

PARCEL SIZE IN ACRES	NUMBER OF PARCELS	PERCENT PARCELS FROM TABLE 2	PERCENT ALL PARCELS IN TOWNSHIP	ACRES IN CATEGORY
Less than 1 Acre	5	7.2 %	.7 %	-----
1.0 - 1.5	8	13.5 %	1.1 %	11.5
1.6 - 2.5	3	8.8 %	.4 %	6.0
2.6 - 3.5	2	6.8 %	.2 %	5.4
3.6 - 5.0	5	13.8 %	.7 %	24.2
5.1 - 10.0	10	22.7 %	1.4 %	79.5
10.1 - 45.0	38	19.2 %	5.3 %	977.2
45.1 - 100.0	35	18.1 %	4.9 %	2 353.9
100.1 - 200.0	8	16.6 %	1.1 %	1 027.0
Over 200	2	40.0 %	.2 %	1 345.0
TOTALS	116	N/A	16.0 %	5 829.7

Source: Crawford County Planning Commission (CCPC)
staff calculations from 1978 county assessment records.

POPULATION FACTS

It is important to know how many people there are in the Township and their age and sex breakdown. The amount of population affects schools, roads, utilities, health and elderly care facilities, fire and police protection, and so on. Also, as a general rule, the more people a municipality has the greater the need for community planning. Shortly we shall see that Spring Township is a growing community, but first let us establish a baseline from which to plan. That baseline will be the current population, as best we can determine it.

Current Population

The 1970 Census is the latest "official" count of population. This census put Spring Township's population at 1,287 people. However, a Census publication entitled "Population Estimates and Projections", Series P-25, No. 686, issued May 1977, puts Spring's population at 1,402 in 1975. We can assume that this estimate is fairly accurate because Federal Income Tax returns and other data available to the federal government were used as a basis for this figure.

Table 4 provides a look at some of Spring Township's population characteristics in 1970.

TABLE 4

POPULATION BY AGE AND SEX SPRING TOWNSHIP - 1970						
AGE GROUP	% MALE	MALE	% FEMALE	FEMALE	TOTAL	% TOTAL
0-4	8.7 %	57	10.1 %	64	121	9 %
5-14	24.1 %	158	20.7 %	131	289	22 %
15-24	13.8 %	90	17.5 %	111	201	16 %
25-34	9.3 %	61	10.0 %	63	124	10 %
35-44	10.7 %	70	11.2 %	71	141	11 %
45-54	12.4 %	81	11.8 %	74	156	12 %
55-64	8.6 %	56	7.3 %	46	102	8 %
65+	12.4 %	81	11.4 %	72	153	12 %
TOTALS	100.0 %	654	100.0 %	633	1287	100.0 %

Source: U. S. Census - 1970

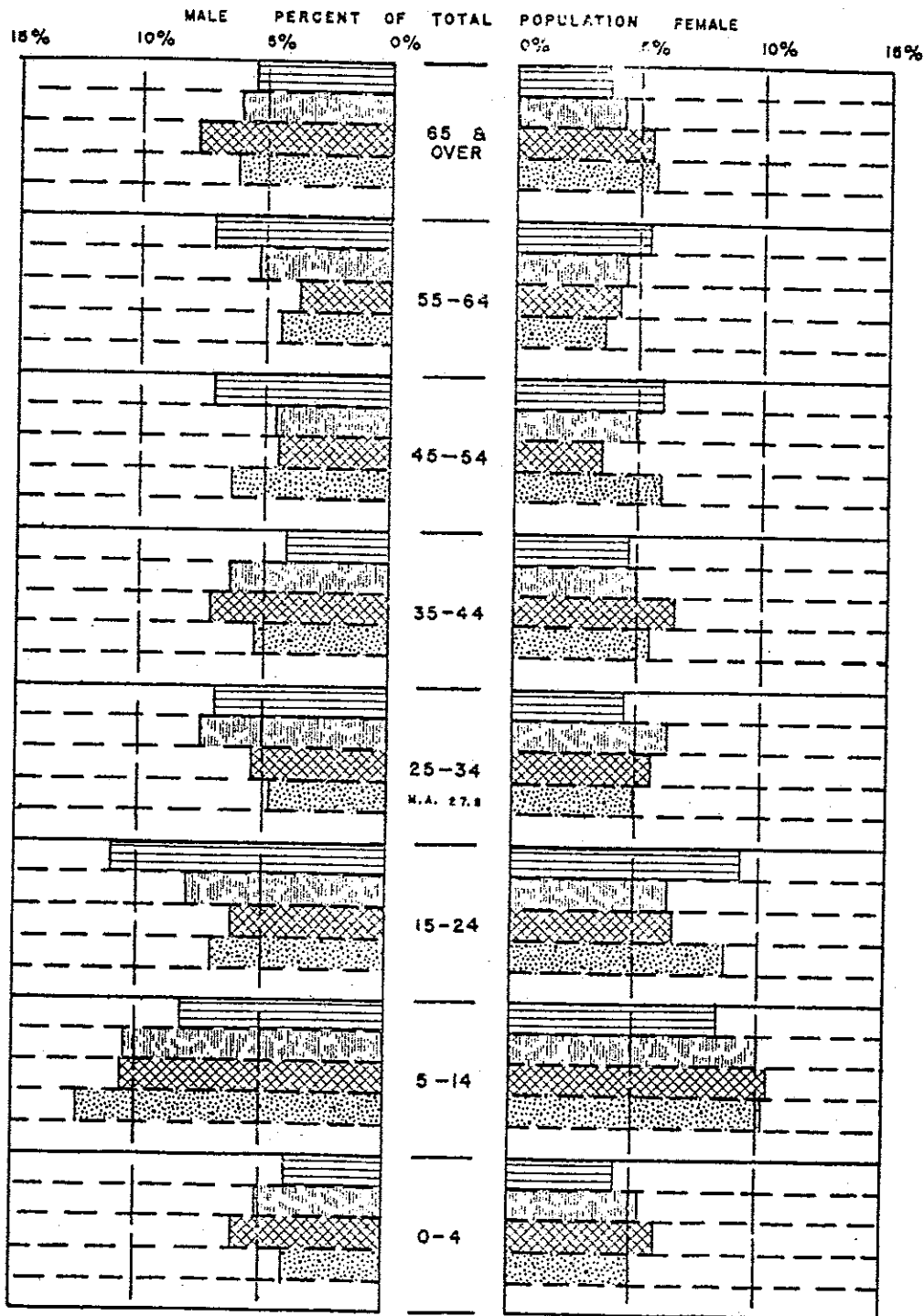
Several observations can be made from this table. There were 245 women of childbearing age (ages 15-44), 724 people in the work force age group (15-65), and 153 "senior citizens" age 65 and over. The largest segment of the population by age was the 5 to 14 year old group, which made up 22 percent of the total. This group also contained more than 20 percent of the females and 24 percent of the males.

It is also interesting to note that there were more males than females living in the Township in 1970. As a general rule, females outnumber males in total population, and especially in the age group over 65. However, in Spring Township there were nine more men than women in the 65 and over group, and there were twenty-five more men than women in the age group 45 and over. Table 5 shows the age-sex breakdown for the three decades before 1970. Some observations that can be made from this table are as follows: Since 1940 males have outnumbered females. However, this gap seems to be steadily closing. In 1940 there were more people in the 15-24 year old age group than any other. In 1950, 1960 and 1970 the 5 to 14 year old age group was the largest. Where did all those young people of the 1940's go? They don't seem to appear in the 25 to 34 age group in 1950. Some of this population loss may be accounted for by World War II; however, it is not at all unusual for people in this age group to move away from home seeking jobs or a new life for themselves. One can also see that over the thirty year period population in the age groups 35 through 64 have remained fairly stable. This reflects those people who decided to stay in the Township to raise their families.

It is interesting to follow a certain age group through the decades to see how it has changed. This can be enhanced by color coding the same group of people (the bars) for different decades.

TABLE 5
 Population By Age Group & Sex 1940- 1970
 Spring Township

	MALE	FEMALE	TOTAL
1940	704	592	1,296
1950	727	635	1,362
1960	683	642	1,325
1970	654	633	1,287



Source: U. S. Census

POPULATION TRENDS

Spring Township, like many communities in Crawford County, has experienced fluctuating trends in population since the 1840's. The Township's peak population (1,862) was experienced in 1860 and its lowest population (1,101) occurred in 1930. The 1970 Census reported a total population of 1,287, which was a three percent decline from the previous decade.

As shown in Table 6, the numerical changes in total population have ranged from an increase of 220 during the 1840's to a decrease of 340 during the 1860's. If one looks at changes expressed as a percent of the total population, one finds a range from an eighteen percent decrease during the 1860's to an eighteen percent increase during the 1930's. The overall change in population from 1840 to 1970 shows a decline of twenty percent or a 1.6 percent drop per decade.

TABLE 6

POPULATION COMPARISONS 1840-1970 SPRING TOWNSHIP			
DECADE	TOTAL POPULATION	ACTUAL CHANGE	PERCENT CHANGE
1840	1 616		
* 1850	1 836	+220	+14.0 %
1860	1 862	+ 26	+ 1.0 %
* 1870	1 522	-340	-18.0 %
1880	1 524	+ 2	+ 0.1 %
1890	1 575	+ 51	+ 3.0 %
1900	1 391	-184	-12.0 %
1910	1 342	- 49	- 3.5 %
1920	1 263	- 79	- 6.0 %
1930	1 101	-162	-13.0 %
1940	1 296	+195	+18.0 %
1950	1 362	+ 66	+ 5.0 %
1960	1 325	- 37	- 3.0 %
1970	1 287	- 38	- 3.0 %

Source: Crawford County Planning Commission staff
analyses of U. S. Census data.

It is difficult to identify specific reasons for the sharp contrasts in population as shown in Table 6. Perhaps the most influential event was the incorporation of the village of Spring Corners into Springboro Borough in 1866. The 1870 Census tells us that the population of Spring Township decreased by 340 people during the decade of the 1860's. That same Census also reports the population of Springboro to have been 323 for 1870. During the forty year period from 1890 to 1930, Spring Township experienced steady declines in population. This is partially explained because of the advent of the industrial revolution in our society and the parallel decline in the numbers of people engaged in farming especially in areas where small farm holdings predominate. However, this trend reversed during the 1930's when the Township experienced its largest increase as a percent of its total population (18 percent). The decades of the 1930's and 1940's together represent the largest population increase for Spring Township, accounting for a twenty-three percent increase in total population. Since 1950, the Township has experienced gradual decreases of approximately three percent per decade in total population. However, U. S. Census "Population Estimates and Projections" (Series P-25, No. 686) published in May of 1977 give Spring Township a 1975 population of 1,402, up almost nine percent from 1970.

TABLE 7

COMPARISON OF POPULATION TRENDS
CONNEAUT VALLEY AREA - 1940 to 1975 *

MUNICIPALITY OR AREA	1940	1950	PERCENT CHANGE 40-50	1960	PERCENT CHANGE 50-60	1970	PERCENT CHANGE 60-70	PERCENT CHANGE 40-70	1975 **	PERCENT CHANGE 70-75
Spring Twp.	1 296	1 362	+ 5.1	1 325	-2.7	1 287	-2.9	- 0.7	1 402	+ 8.9
Springboro	570	611	+ 7.2	583	-4.6	584	+0.2	+ 2.5	643	+10.1
Conneautville	965	1 177	+ 22.0	1 100	-6.5	1 032	-6.2	+ 6.9	1 082	+ 4.8
Beaver Twp.	740	759	+ 2.6	800	+5.4	775	-3.1	+ 4.7	876	+13.0
Conneaut Twp.	1 208	1 235	+ 2.2	1 295	+4.9	1 321	+2.0	+ 9.3	1 418	+ 7.3
Summerhill Twp.	830	939	+ 13.1	910	-3.1	963	+5.8	+16.0	893	- 7.3
Conneaut Valley	5 609	6 083	+ 8.5	6 013	-1.2	5 963	-0.8	+ 6.3	6 314	+ 5.9
Crawford Co.	71 644	78 948	+ 10.2	77 956	-1.3	81 342	+4.3	+13.5	85 357	+ 4.9

Notes: * Conneaut Valley Area for the purposes of this report includes: Conneautville and Springboro Boroughs, and Beaver, Conneaut, Spring and Sumerhill Townships. However, residents do not normally consider Conneaut Township as part of the "Valley" community.

** 1975 Population from U. S. Census Publication "Population Estimates and Projections" (Series P-25, No. 686 - May 1977)

Source: Crawford County Planning Commission staff analyses of U. S. Census data.

Table 7 provides a comparison of total population from 1940 to 1975. Six municipalities are included in this comparison. During the 1940's all six communities experienced increases in total population, with Conneautville and Summerhill Township exceeding the "Valley" and county-wide growth rates. During the 1950's, Beaver and Conneaut Townships experienced increases, while the four other "Valley" communities and the County declined. During the 1960's, Summerhill and Conneaut Townships experienced increases; Springboro remained steady, and the three remaining communities declined in their total populations. The overall change from 1940 to 1970 for the Conneaut Valley was an increase of 6.3 percent. Summerhill Township had the highest overall increase with sixteen percent for this same period. Spring Township was the only "Valley" community to experience a net decrease in total population during the thirty year period. However, the decrease was only 0.7 percent, or nine people. Crawford County's net change for the thirty years was an increase of 13.5 percent.

Spring Township had the highest total population of all communities in the Conneaut Valley from 1940 through 1960. By 1970, however, Conneaut Township took the lead and Spring moved into second place followed by Conneautville, Summerhill, Beaver and Springboro. Census estimates published in 1977 show that this ranking was still the same in 1975; however, Spring Township's population trend reversed itself to a plus 8.9 percent during the first half of this decade. Except for the decade of the 1930's, this is the largest single increase for the Township since the 1840's.

If the present rate of growth continues in Spring Township during the 1970's, this may reflect the largest population increase in Township history. Our answer will have to wait until the 1980 Census is published. A sneak preview of a population trend increase in Spring Township can be seen in figures on new housing starts for the Township during the past five years (1974-1978). County assessment records show that during this time sixty six new residential units were issued permits. If this figure is multiplied by an assumed number of three persons per household, then there were 198 new residents during this five year period. Should this trend continue, an increase of 396 people would be realized by the 1980 Census. This would amount to a 30.8 percent increase over the 1970 population of 1,287 people. Regardless of such assumptions and predictions, the permits issued over the past five years for new dwelling units reveal a growth trend in Spring Township. Yet one must realize that during this same period dwelling units have been lost due to abandonment, fire loss and general dilapidation.

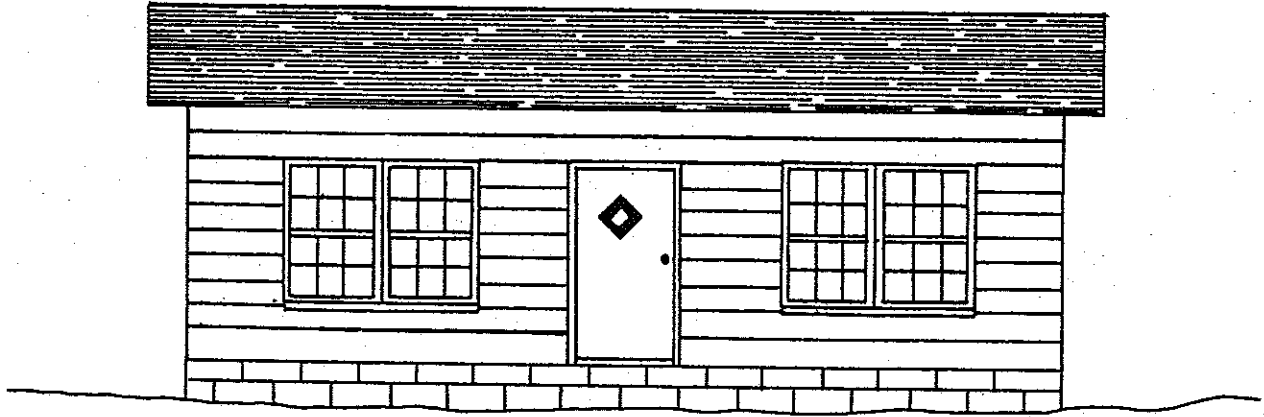


TABLE 8

TREND INDICATORS - GROWTH SINCE 1974
 SPRING TOWNSHIP

YEAR	NEW HOMES	MOBILE HOMES	HOME ADDITIONS	COMMERCIAL SPACE
1978	7	7	-	-
1977	12	7	2	-
1976	6	4	4	1
1975	4	2	3	2
1974	10	7	1	-
TOTALS:	39	27	10	3

Source: County Assessment Records

ANALYSIS OF THE ECONOMY

Employment

A community's economic well being is normally tied to its employment situation. How many jobs there are in the community, and the availability of those jobs to residents, are important questions. This section will deal with the current employment picture in Spring Township and the surrounding area. The first thing to look at is the Township labor force. Just what is a "labor force", and how large is it in Spring Township?

According to the U. S. Census, on which our information is based, the "labor force" includes most persons from age 14 through age 65. People not included are: members of the armed forces, students, housewives, retired persons, people in institutions, and people working less than 15 hours per week. Unemployed people are included, if they are able to work. The 1970 Census, which represents 1969 conditions, estimated that the labor force for Spring Township was 530 in 1969. Labor force statistics for the Township and for Crawford County are displayed in Table 9.

TABLE 9

LABOR FORCE CHARACTERISTICS SPRING TOWNSHIP & CRAWFORD COUNTY - 1969										
GROUP STATUS	IN LABOR FORCE			OUTSIDE LABOR FORCE					TOTAL GROUP	
	EMPLOYED	UNEMPLOYED	(TOTAL)	SERVICE	INST.	SCHOOL	OTHER	(TOTAL)		
S P R I N G	Males	344	26	(370)	6	20	59	33	(118)	488
	Females	137	23	(160)	-	-	33	254	(287)	447
	Both	481	49	(530)	6	20	92	287	(405)	935
	% TOTAL GROUP	51.5%	5.2 %	56.7 %	.6 %	2.1 %	9.8 %	30.8 %	43.3 %	100 %
C O U N T Y	Males	20 183	636	(20 819)	20	320	3 360	6 946	(10 646)	31 465
	Females	10 625	483	(11 108)	-	528	3 659	16 042	(20 229)	31 337
	Both	30 808	1 119	(31 927)	20	848	7 019	22 988	(30 875)	62 802
	% TOTAL GROUP	49.0 %	1.8 %	50.8 %	-	1.4 %	11.2 %	36.6 %	49.2 %	100 %

A comparison of percentages in this table reveals that the labor force picture in Spring Township was fairly close to that of the rest of the County in 1969. The major difference was in the percentage of people in the labor force who were not working. Spring Township had a larger portion of its 14 years and over group in the labor force than did the County, 56.7 percent compared to 50.8 percent. However, over five percent of this group were not employed while only less than two percent of the same age group in the County were not employed.

Table 9 does not show unemployment, but rather the percent of non-employed persons in the entire age group when the Census was taken. However, the unemployment rate for Spring Township in 1969 can easily be obtained from Table 9 by dividing the number of unemployed by the total labor force ($49 \div 530 = .0925$), or 9.2 percent. This compares to 3.5 percent for the County during that same period. Since no statistics are kept on the current employment picture by township it will be difficult to make any accurate comparisons until the 1980 Census. Should the reader wish to try his or her own comparison, the following unemployment rates are provided for western Crawford County, the state and the nation:

UNEMPLOYMENT RATES

	Crawford Co.	Pennsylvania	U.S.
February 1978	7.7 %	7.6 %	6.9 %
December 1978	7.0 %	6.0 %	5.6 %

Now that we have covered the "what" of the labor force let us look into the "how" and "where" of Spring Township's workers. How were these 481 people from Spring employed in 1969? Table 10 gives us some insight into this:

TABLE 10

COMPARISON OF OCCUPATION GROUPS SPRING TOWNSHIP & CRAWFORD COUNTY - 1969					
OCCUPATION	MALE	FEMALE	TOTAL	% TOTAL SPRING	% TOTAL COUNTY
Professional/Technical	12	16	28	5.8 %	11.3 %
Managers/Administrators	6	4	10	2.1 %	7.0 %
Sales	8	4	12	2.5 %	5.8 %
Clerical	11	36	47	9.8 %	12.7 %
Craftsmen/Foremen	86	-	86	17.9 %	17.9 %
Operatives	106	38	144	29.9 %	21.3 %
Transportation Operators	23	-	23	4.8 %	3.6 %
Laborers (Except Farm)	11	-	11	2.3 %	4.9 %
Farm Laborers	12	6	18	3.7 %	1.3 %
Farmers/Farm Managers	46	-	46	9.6 %	2.6 %
Non-Household Services	23	28	51	10.6 %	10.2 %
Household Workers	-	5	5	1.0 %	1.4 %
TOTAL EMPLOYED	344	137	481	100.0 %	100.0 %

A quick glance at Table 10 shows that thirty percent of Spring's labor force was employed as "operatives". This group covers a wide variety of job types including such things as: insulation workers, assemblers, manufacturing checkers, station attendants, inspectors, dressmakers, furnace men, meat cutters, welders, and so on. Craftsmen and foremen made up the second largest category amounting to eighteen percent of the labor force. This was followed by people providing services (10.6%); clerical workers (9.8%); and farmers and farm managers (9.5%). When Spring Township figures are compared to the county, major differences appear in some areas. For example, farmers and farm managers make up less than three percent of the county labor force. The percentages for clerical, (13%), professional, (11%), managers, (7%), and sales workers (6%) are considerably higher for the county as a whole than for Spring Township. This indicates that the character of Spring Township is more rural than the county as a whole.

It is interesting to note that the female population in Spring Township provided twenty eight percent of the labor force, and filled mainly operative, clerical, service and professional jobs. There were more "professional" females than males (16 vs. 12). The teaching profession probably accounts for most of this difference. County-wide, females made up thirty four percent of the employed labor force. (Table 9).

TABLE 11

EMPLOYMENT BY MAJOR INDUSTRY -
SPRING TOWNSHIP & CRAWFORD COUNTY - 1969

INDUSTRY TYPE	MALE	FEMALE	TOTAL	% TOTAL SPRING	% TOTAL COUNTY
Agriculture/Forestry	58	6	64	13.3 %	4.2 %
Mining	-	-	-	-	.2 %
Construction	10	-	10	2.1 %	5.4 %
Mfg. (Durable Goods)	114	21	135	28.1 %	28.8 %
Mfg. (Non-Durable Goods)	72	23	95	19.7 %	11.0 %
Transportation	25	-	25	5.2 %	7.0 %
Wholesale/Retail	26	27	53	11.0 %	16.0 %
Finance/Real Estate	15	-	15	3.1 %	2.6 %
Business/Repair Service	7	-	7	1.4 %	1.4 %
Personal Service	5	5	10	2.1 %	3.5 %
Entertainment/Rec. Serv.	-	-	-	-	.7 %
Professional Service	8	51	59	12.3 %	16.5 %
Public Service	4	4	8	1.7 %	2.7 %
TOTAL EMPLOYED	344	137	481	100.0 %	100.0 %

From Table 11 one sees that the largest group of workers from Spring Township was employed in manufacturing, with almost forty-eight percent in this industry. Twenty-eight percent were employed in the manufacture of durable goods and twenty percent in non-durable goods manufacturing. A similar pattern is also found on the county level with forty percent of the labor force employed in manufacturing. It should be noted here that the 1970 Census was taken when the Albro Packing Company was operating in Springboro. This fact probably accounts for the high percentage of Spring Township workers (20%) employed in the manufacture of non-durable goods, i.e. pickles and saurkraut. Agriculture, professional service, and wholesale/retail trade industries were also major employers accounting for thirteen, twelve and eleven percent of the work force respectively.

A map has been prepared showing the locations of full-time and active part-time farm operations in the Township; there are forty-three such operations. The active part-time farmers included in this accounting were judged to have a sufficiently substantial operation such that they make an appreciable contribution to the Township's agricultural industry. Twenty-eight part-time or so called "hobby" farmers were identified and mapped. This information was obtained from the Township Supervisors and from knowledgeable members of the Spring Township Planning Commission. Admittedly, these statistics are somewhat subjective, but they indicate that the Township's agricultural industry is one of the strongest in the county.

On the county level, professional service and wholesale/retail trade ranked next in importance behind manufacturing as the major employment industries. The manufacture of durable goods employed the largest group of men from the Township's male labor force (33%), while professional services employed the most females (37%). This was also the case on the county level, although the percentages differed slightly (34% and 32% respectively). No table is printed in this report showing male-female break downs county-wide.

A question one might ask is: "Where does everybody from Spring Township work?" On this account we have fairly accurate information provided by the local wage tax collector. Table 12 provides this information. As can be seen from this Table, 481 residents worked outside of the Township in 1977. Fifty-nine percent of these people worked in Crawford County, mostly in Meadville. Thirty-six percent worked in Erie County, mostly in Girard and Albion, and five percent worked in Ohio, mostly in Conneaut.

TABLE 12

LOCATION OF EMPLOYMENT BY COUNTY, STATE & MUNICIPALITY
 SPRING TOWNSHIP RESIDENTS - 1977

COUNTY, STATE, MUNICIPALITY	Number Township Residents	Percent of Total
Crawford	281	58.4 %
Erie	172	35.8 %
Mercer	3	.6 %
Venango	1	.2 %
State of Ohio	24	5.0 %
TOTALS	481	100.0 %
Meadville	110	22.8 %
Conneautville	85	17.7 %
Girard	48	10.0 %
Albion & N.W. School Dist.	40	8.3 %
Springboro	28	5.8 %
Erie	26	5.4 %
Millcreek Twp.	20	4.2 %
Penncrest School District	17	3.5 %
Edinboro	16	3.3 %
Lawrence Park (General Elec.)	14	2.9 %
Conneaut, Ohio	11	2.3 %
Conneaut Lake Park	10	2.1 %
Linesville	10	2.1 %
Saegertown	9	1.9 %
Fairview Twp.	8	1.6 %
Greenwood Twp. (Pgh. Plate Glass)	7	1.4 %
Woodcock Twp. (Abex)	4	.8 %
Cleveland, Ohio	4	.8 %
Ashtabula, Ohio	3	.6 %
Greenville	3	.6 %
North Kingsville, Ohio	3	.6 %
Andover, Ohio	1	.2 %
Columbus, Ohio	1	.2 %
Franklin, Venango County	1	.2 %
Hayfield Twp.	1	.2 %
Medina, Ohio	1	.2 %
TOTALS:	481	100.0 %

Note: These employment figures do not include full-time farm workers, or residents working inside Township.

Source: Wage Tax Collector, Spring Township, October 1978; data organized by Crawford County Planning Commission staff.

Income

The pulse of the local economy is usually measured by the unemployment rate and the incomes of those living in the community. A good way to measure Spring Township's economy is to relate township income indicators with those of neighboring areas. This we can do using U. S. Census data. The following table comparing communities of the Conneaut Valley and Crawford County should show just about where Spring Township stands on a relative scale.

TABLE 13

FIVE YEAR INCOME COMPARISONS
CONNEAUT VALLEY & CRAWFORD COUNTY.

MUNICIPALITY	1970	1975 *	1969	1974	% INCREASE	1970 +	1975 *	POPULATION	
	FAMILY MEAN	FAMILY MEAN	PER CAPITA	PER CAPITA	PER CAPITA	TOTAL MEAN	TOTAL MEAN	1970	1975
Spring Township	\$8 269	\$12 618	\$2 041	\$3 114	52.6 %	\$7 308	\$11 152	1 287	1 402
Beaver Township	\$9 724	\$14 343	\$2 312	\$3 410	47.5 %	\$9 412	\$13 883	775	876
Conneaut Township	\$8 380	\$11 740	\$2 205	\$3 090	40.1 %	\$7 715	\$10 809	1 322	1 418
Conneautville Borough	\$9 225	\$13 146	\$2 491	\$3 550	42.5 %	\$7 653	\$10 906	1 032	1 082
Springboro Borough	\$7 570	\$11 665	\$2 231	\$3 438	54.1 %	\$6 913	\$10 653	584	643
Summerhill Township	\$8 333	\$12 158	\$2 369	\$3 456	45.9 %	\$6 972	\$10 172	963	893
Crawford County	\$9 323	\$13 173	\$2 637	\$3 726	41.3 %	\$7 580	\$10 711	81 342	85 357

Notes:

* 1975 Family Mean Income is a linear projection based on the percent increase of per capita income.

+ Total Mean Income is the average of all mean family incomes and all unrelated individual mean incomes.

Residents of the Conneaut Valley do not normally consider Conneaut Township to be part of the "Valley" community.

Source: U. S. Census - 1970; 1977 "Population Estimates and Projections", Series P-25, No. 686 and Crawford County Planning Commission staff computations.

What conclusions can be drawn from this table? Let us first look at per capita income which is computed by dividing the total income of a community by its total population. Per capita income is usually the best income barometer when making year to year comparisons or comparisons among different communities. In 1969, according to the U. S. Census, Spring Township ranked lowest in per capita income of all the Conneaut Valley communities. But by 1974 the per capita income of Township residents jumped ahead of Conneaut Township's per capita income. This was due to a 52.6 percent increase over those five years, which is the highest among all Conneaut Valley communities except Springboro, which had a 54.1 percent increase. This significant increase in the percentage of per capita income in Spring Township also meant an increase in its "family mean" income ranking. In 1970 Spring Township family incomes ranked next to last when compared to other Conneaut Valley communities.

By 1975 the average family income in the Township increased enough to place the Township third out of six. When compared to the county the difference in per capita income between Spring Township residents and county residents increased slightly over the five year period. In 1969, for example, the per capita income for the entire county was \$596.00 above that of Spring Township. By 1974 this difference increased to \$612.00, or by sixteen dollars. This figure is somewhat deceptive because it appears that Spring residents were not catching up to County residents. However, on closer inspection we see that they are catching up. The rate of increase for County residents during this period was 41.3 percent, while at the same time it was 52.6 percent for Spring Township. If, for instance, Spring's per capita had only increased at the same rate as the County's (41.3%), the difference for 1974 would have been \$842.00 rather than \$612.00.

Table 14 gives us an idea of how incomes have increased for township residents over the eight year period from 1969 to 1977. It also shows the increased role women are playing as income earners. In looking at this table, however, the reader must take into account the sources of information used so as not to be misled. The 1969 information is from the 1970 Census, while the 1977 information is from local wage tax information. Thus only those persons who filed wage tax returns are included for 1977. This accounts, also, for the fact that there are no figures under the "No income" category for 1977. At any rate, this table can be useful when comparing relative numbers of people in various income ranges and in comparing percentage totals.

Twenty-one percent of the income earners in 1969 made less than \$1,000 per year. By 1977 only about eight percent (7.7%) were making less than \$1,000 annually. In 1969 only four females were making more than \$7,000 per year; however, by 1977 fifty-five women were making more than \$7,000 and twenty were earning more than \$10,000 annually. In 1969 males were fairly well distributed among the income ranges with slightly more men at the lower end of the scale and slightly less at the upper end of the scale. By 1977 this had changed dramatically with a significantly greater percentage of males at the upper end of the income scale. For example, only 39 men out of 417 earned more than \$10,000 in 1969. However, by 1977 there were 179 men out of 344 earning over that amount. In looking at both males and females on a percentage basis, only six percent earned over \$10,000 in 1969, but by 1977 more than thirty-seven percent of all persons reporting income were making more than \$10,000 annually. Even taking inflation into account, this is a significant increase in the earning power of Spring Township residents and helps to explain the large increase in percentage of per capita income mentioned in the previous section.

TABLE 14

INCOME RANGES FOR PERSONS 14 YEARS AND OLDER BY SEX
 SPRING TOWNSHIP RESIDENTS

1969 % TOTAL	1969 MALES	1969 FEMALES	1969 TOTAL	INCOME RANGE	1977 TOTAL	1977 FEMALES	1977 MALES	1977 % TOTAL
-	71	211	282	No income	-	-	-	-
21.0 %	60	77	137	Below 1 000	41	26	15	7.7 %
13.2 %	24	62	86	1 000 - 1 999	43	29	14	8.1 %
6.4 %	31	11	42	2 000 - 2 999	28	16	12	5.2 %
8.4 %	34	21	55	3 000 - 3 999	29	16	13	5.4 %
10.9 %	44	27	71	4 000 - 4 999	34	15	19	6.4 %
7.6 %	34	16	50	5 000 - 5 999	35	17	18	6.6 %
9.2 %	42	18	60	6 000 - 6 999	37	16	21	6.9 %
6.7 %	44	-	44	7 000 - 7 999	34	16	18	6.4 %
10.6 %	65	4	69	8 000 - 9 999	54	19	35	10.1 %
4.9 %	32	-	32	10 000 - 14 999	129	19	110	24.1 %
1.1 %	7	-	7	15 000 - 24 999	65	1	64	12.2 %
0.0 %	-	-	-	25 000 and over	5	-	5	.9 %
100.0 %	417	236	653	TOTALS	534	190	344	100.0 %

Note: Persons with "No Income" are not included in grand total or percentages.

Sources: U. S. Census - 1970; and Wage Tax Collector, Spring Township 1978.

HOUSING

Based upon data provided in the 1970 U. S. Census and a field survey conducted for the preparation of the Crawford County Comprehensive Plan, Table 15 provides a comparison of the supply and condition of housing in the Conneaut Valley Area.

Table 15 indicates that in 1970 Spring Township had the highest number of housing units (414) for any community in the Conneaut Valley, if one does not count Conneaut Township as part of the "Valley". In terms of overall condition of housing, Spring ranked fourth (47%) out of the five Valley communities on the Census record of deteriorating housing. The percentage of dilapidated housing ranked Spring third with 11.8 percent of all houses in this condition. One can see that there are housing problems in the Township and that the solution to these problems should be part of the planning process.

There were approximately 2,000 total housing units in the Valley Area in 1970, 85 of which were classified as seasonal units and 1,915 year round units. Approximately 10.5 percent of all units were vacant and only 1.8 percent of all units were available for sale or rent. Approximately 44 percent of all Conneaut Valley units were classified as deteriorating; 17.3 percent were dilapidated, leaving only 38.7 percent in the sound category. Comparing the Conneaut Valley Area with the whole of Crawford County, we find: (1) there is a higher vacancy rate in the "Valley", and (2) the condition of housing generally is worse in the "Valley". However, one should keep in mind the high vacancy rate is based on a high number of year round vacant units in Conneaut Township, where it is probably true that many of these units are not suitable for normal family living. One must keep in mind, also, that accurate statistics on the condition of housing are very difficult to obtain. Few surveys are based on careful evaluation of housing interiors; such is the case here.

The supply of housing in Spring Township is tight. Normally, a municipality, if it has a healthy housing market, has a five percent vacancy rate for rental housing units and a one percent vacancy rate for owner occupied units. Spring Township in 1970 had no rental units available, and the vacancy rate for owner occupied housing was approximately one percent.

A glimpse of current trends in housing for the Township can be seen in Table 8, Trend Indicators - Growth Since 1974 in the preceding section "Population Trends". The table shows that there have been thirty-nine new housing starts in the Township from 1974 through 1978. There were also twenty-seven permits issued for new mobile home residences during this same period. This accounts for a total of sixty-six new dwelling units during five years. No figures will be available on what happened to housing between 1970 and 1974 until the 1980 Census, because there are no local or County records for this period.

TABLE 15

SUPPLY AND CONDITION OF HOUSING
CONNEAUT VALLEY AREA - 1970

	BEAVER TWP.	CONNEAUT TWP.	CONNEAUT- VILLE	SPRING TWP.	SPRING- BORO	SUMMER- HILL TWP.	CONNEAUT VALLEY AREA TOTAL	CRAWFORD COUNTY
HOUSING SUPPLY								
Total No. of Units	232	517	361	414	182	294	2 000	31 110
Year Round Units	232	443	361	407	181	291	1 915	27 834
Seasonal Units	0	74	0	7	1	3	85	3 276
YEAR ROUND VACANT UNITS								
Total	33	81	22	35	2	28	201	2 390
For Rent	2	1	1	0	0	3	7	515
For Sale	4	9	9	4	0	2	28	218
Other	27	71	12	31	2	23	166	1 657
Percent Vacant	14.2 %	18.3 %	6.1 %	8.6 %	1.1 %	9.6 %	10.5 %	8.6 %
Percent Available	3.9 %	2.3 %	2.8 %	1.0 %	.0 %	1.7 %	1.8 %	2.6 %
CONDITION OF HOUSING								
Percent Deteriorating	66.8 %	53.5 %	27.6 %	47.0 %	22.0 %	41.0 %	44.0 %	25.2 %
Number Deteriorating	155	237	100	191	40	119	842	7 014
Percent Dilapidated	22.0 %	27.9 %	8.9 %	11.8 %	11.5 %	19.1 %	17.3 %	10.9 %
Number Dilapidated	51	124	32	48	21	56	332	3 033

Note: Residents of the Conneaut Valley do not normally consider Conneaut Township as part of the "Valley" area.

Sources: U. S. Census-1970; Crawford County Comprehensive Plan; data compiled by Crawford County Planning Commission staff.

COMMUNITY FACILITIES AND SERVICES

This report provides an opportunity for the collection of information on facilities and services so that it is all summarized and organized in one place. It goes without saying that population growth means increased demands for community services. Appreciable growth beyond what the Township accommodates today will require, most likely, the expansion of these facilities and services. This report provides the baseline information necessary to assess current facilities and services, and begin to plan where the need exists.

Road System

The most important service performed by the elected officials of the Township is the maintenance of a large segment of the road system functioning in the municipality. The road network in Spring Township is extensive and is its most important public investment. There is a total of 59.37 miles of road in the Township system. Of this total 3.2 miles are in a bituminous surface and 2.6 miles are classified as unimproved. The unimproved roads are of a gravel construction and not much unlike the normal improved Township gravel road. Accordingly, 90 percent of the Township road system is "graveled".

The State also maintains an extensive system of roads in Spring Township. Their system includes 31.78 miles; all but 1.57 miles of this system is bituminous roadway. If the total State and Township systems are added together there are 91.15 miles of road. The percentage break between Township and State roads is 65 percent and 35 percent respectively.

There is a clear difference in pavement characteristics between the Township and State systems. Nearly all of the Township roads are gravel - 90 percent as stated above. Only 5 percent of the State system is gravel. The Township, however, does have a policy of laying down a strip of "tar and chip" surfacing in front of all residences on gravel roads. The extent of this paved strip in front of each rural residence is approximately 200 feet. Nearly all Township roads are inventoried as having a travel-way width of from 14 to 16 feet; all Township roads have a 50 foot right-of-way. State roads also have a 50 foot right-of-way and have pavement widths of from between 16 and 18 feet.

The amount of drainage structures on the Township's road system is considerable. For example a fairly complete inventory was done of all such structures on the Township systems as follows:

205 Culverts of all types and sizes

22 Bridges (There may be some difference of opinion on the difference between a bridge and culvert structure.)

In addition the State maintains 11 bridges on its system. The culverts on the State system were not inventoried. The Board of County Commissioners maintains 3 bridges, one of which is on the boundary line between Spring Township and Conneautville. These statistics were gathered from a field survey in October, 1978 done by the County Planning Commission staff with the help of local Planning Commission members. State bridge responsibilities were secured from PennDOT records.

The Federal Government through staff assistance from the Pennsylvania Department of Transportation (PennDOT) maintains a classification system for all roads in the townships throughout the State. This system is called the Federal Functional Classification System. The categories in this system are listed hereunder along with the current official assignments of roads to these various categories in Spring Township.

Minor Arterial	Route 18	(L.R. 85)
Major Collector	Hickernell Rd.	(L.R. 20052)
	Route 198	(L.R. 20040)
Minor Collector	Beaver Rd.	(L.R. 20041)
	Thatcher Rd.	(L.R. 20050)
	L.R. 20051	(north through Hickernell)
	L.R. 20036	(Pont Road)
	L.R. 20047	(on Cussewago Spring line)
Local	L.R. 20049	
		All remaining State roads including L.R. 20122 (Fisher Road) and L.R. 20142 (Shadeland Road) and all Township roads.

It is important to realize that minor collector and local roads do not receive federal funding assistance for upkeep; but minor arterial and major collector roads can receive such funds. Minor collector and local roads must be maintained through state and local monies. The one exception to this rule is the Federal Off-Systems Funding Program which does make money available for minor collector and local road improvements. The rule is that any road which receives federal aid must be brought up to a cartway or travel-way width of at least twenty feet. The Federal Functional Classification System is an important guide in planning for the level of service on roads, and thus it is an important consideration for planning for the use of land.

Average daily traffic (ADT) is a method for expressing the number of vehicles which use roads. PennDOT keeps statistics on ADT for the roads in its system. Following are average ADT's for the state roads in Spring Township updated to 1978 counts.

<u>Road</u>	<u>ADT</u>
Route 18	1580 to 3390
Hickernell Rd.	622 to 678
Route 198	452
Beaver Rd.	680
Thatcher Rd.	396
L.R. 20051	226 to 509
L.R. 20036	226
L.R. 20047	226
L.R. 20049	226
Fisher Rd.	735
Shadeland Rd.	141

PennDOT and the township post roads for certain vehicular weight limits where it is considered necessary for the public welfare. PennDOT has a practice of posting roads where it is not considered advisable to have loads over ten tons. No roads are posted in Spring Township, with the exception of Route 198 which is posted at certain times of the year. It is far more normal to post bridges for certain weight limits. This is done by the township, the county and by PennDOT. The state has posted 4 bridges in Spring Township:

On Shadeland Road, the bridge over Conneaut Creek and the Conrail overpass;

On Fisher Road, the Conrail overpass, and

On L.R. 20051 the bridge over Rundelltown Creek.

The county has posted the following bridges:

Over Conneaut Creek on Blood Road at 4 tons,

Over Conneaut Creek on Watson Road at 3½ tons, and

Over Conneaut Creek near Skull Road at 4 tons.

Analyzing the existing road network for alignment problems and any other conditions pertinent to the network's well being cause the following observations to be made:

Three abrupt curves on Route 18 are in need of an alignment upgrading: (1) Campground Curve at the Fisher Road intersection; (2) Spisak Curve at the Conley Road intersection; and (3) the curve at the Erie County line.

An awkward intersection exists where Pennside Road meets Route 18.

The Bessemer and Lake Erie Railroad crosses five Township roads at grade: Pennside, Shadeland, Creek, Watson and Fisher Roads. Each of these crossings is a potential hazard.

The old rails of the Penn-Central line lie buried in the Beaver Road surface.

Warner Road does not have adequate right-of-way for a public turn-around.

Timkos Road serves only one property not having frontage on other Township roads and could be shortened through the use of a cul-de-sac construction.

A large map of Spring Township at a scale of 1" = 1000' has been prepared on which road information is delineated. This map shows the location of culverts and bridges; the break between the township and state road system; the surface type for all roads and ADT information. It is available from the township Supervisors, the Township Planning Commission and in the Crawford County Planning Commission office.

Fire And Police Protection

Spring Township residents obtain their fire protection from two volunteer fire companies, one in Springboro, the other in Conneautville. The Springboro Volunteer Fire Department and the Conneautville Fellows Club Volunteer Fire Department maintain mutual assistance agreements and share responsibility for coverage in Spring Township. Normally, Springboro covers the central and northern sections of the Township while Conneautville covers the southern portion closest to the Borough. The following equipment is maintained by these companies:

<u>Springboro</u>	<u>Conneautville</u>
2 Pumper/tankers	1 Pumper/tanker (730 GPM/1000 gal.)
Assorted special equipment	1 Pumper (1000 GPM)
	1 Grass fire vehicle
	1 Equipment van

While fire protection is normally the responsibility of the local government, a fine tradition of volunteer fire fighters in the Conneaut Valley area has made full-time fire companies unnecessary. Spring Township contributes the equivalent of 2 mills of taxes annually to the volunteer companies. Springboro receives approximately 60 percent of this revenue and Conneautville the remaining 40 percent. Fire protection for the township is adequate at this time.

Township residents receive their police protection from the Pennsylvania State Police out of the Meadville Barracks. The State Police provide adequate coverage at this time. There is no current need for township police.

Utilities

Sewage Disposal For most of Spring Township, sewage disposal is handled by individual on-lot septic systems; however, a small portion of the Township is served by a public sewer system. This system is run by an inter-municipal authority, the Northwest Crawford County Sewer Authority. Organized in 1972, the Authority serves the Boroughs of Springboro and Conneautville as well as certain areas of Spring Township. The Township Supervisors appoint one person to serve on the Authority.

The service area for public sewers in the Township includes the Conneaut Valley Elementary School and Valley High School along with fifty-eight private residences along Route 18 north and south of Springboro. An interceptor sewer runs through Spring Township along the Bessemer Railroad right-of-way from Conneautville to Springboro. Collection lines in the Township run along Route 18 from Conneautville north to a point about one thousand feet north of the Penial Holiness Campground; along Fisher Road from Route 18 to the Bessemer Railroad; through open land from the Conneaut Valley Elementary School to the "Bessemer" interceptor; along Route 18 to a point about twelve-hundred feet south of Springboro and then through open land to the "Bessemer" interceptor near Creek Road; and finally along Route 18 north from Springboro to the Shadeland mansion house.

The sewage treatment plant is located in Springboro along the east bank of Conneaut Creek. Design capacity for the treatment plant is 307,000 gallons per day, or enough to serve about 3,000 people each using on the average 100 gallons per day. The existing service connections amount to 787 "equivalent dwelling units" (EDU's) which translates to approximately 2,754 people. One equivalent dwelling unit equals 3.5 people, the typical household size.

$$787 \text{ (connections)} \times 3.5 \text{ (people)} = 2,754 \text{ (persons served)}$$

According to the treatment plant's design capacity there would only be an excess of 31,600 gallons per day if each EDU now connected to the system averaged 350 gallons per day. However, as the system is now operating each EDU is only contributing an average of about 190 gallons per day, or 55 gallons per person, leaving an excess capacity at the treatment plant of approximately 157,000 gallons per day. In terms of how many new homes could be serviced by the existing treatment system, these two calculations differ considerably. If one uses the excess capacity figure of 31,600 GPD, then only 316 additional people or about 90 new homes could be added to the system without expansion. If, on the other hand, the figure of 157,000 GPD is used, then approximately 1,570 new people could be accommodated. This amounts to 448 new homes.

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The Pennsylvania Department of Environmental Resources (PennDER), which regulates expansion and operation of sewage treatment facilities, bases its expansion policy on records of actual daily average flow figures, rather than on design capacity. Thus, even though the treatment plant appears to be near its design capacity based on the number of hookups (EDU's), there is still room in reality for almost double the present number of hookups before the plant need be expanded.

The U. S. Environmental Protection Agency (EPA), which mostly funded the existing sewer system, has recently changed its guidelines on treatment plant design capacity. They now recommend a treatment facility to be designed to accommodate from sixty to seventy gallons per person per day rather than one hundred gallons per day. Using seventy gallons per person per day as a conservative estimate for future planning of facility needs, the existing treatment plant could accommodate up to 2,243 new people without expansion. This translates to about 640 additional households (EDU's).

The collection system is designed to carry two and a half times the capacity of the treatment plant, or enough to serve approximately 7,600 people. This means that the main lines in the system (interceptors) are capable of carrying much more than they do now, allowing room for additional development in the service area. However, the sewage treatment plant will need to be expanded if much more development occurs. Excess capacity in the collection system is 617,500 gallons per day based on the existing average daily flow of 150,000 gallons per day. This is enough to accommodate 2,520 new homes using EPA's standard of 70 gallons per person per day.

Water Spring Township has no public water system. Water must be obtained from individual wells. (See the Ground Water Resources section of this report).

Electricity Electric power is provided to Township residents from two sources. Pennsylvania Electric Company (Penelec) and the Northwestern Rural Electric Cooperative Association (REA). Penelec provides single or three phase power to the Boroughs of Springboro and Conneautville, and along Route 18 between the Boroughs in Spring Township. They also provide three phase power to individual customers along L.R. 20041 from Springboro to Beaver Center, and single phase service along L. R. 20052 from Springboro to Hickernell.

Penelec and REA have defined jurisdictional areas governed by Pennsylvania's New Territorial Act of 1975, and neither company can encroach on the other's territory. The Pennsylvania Public Utilities Commission (PUC), which regulates utility companies, requires that each company must be capable of serving increased demand within their service areas. Penelec is able to do this, and has facilities which include a 34.5 KV line which can be used for industrial, commercial, or residential service. They also have normal 12.47 KV three phase or 7.2 KV distribution.

The Rural Electric Cooperative serves all areas of Spring Township not served by Penelec. This includes most of the Township. REA receives its power through Penelec transmission lines and provides single and three phase service through most of their area. Exceptions to this are the Spisak Curve area on Pa. Route 18, the area east along Conely Road and the area north on Stagle Road into Erie County where there is only single phase service.

Telephone The Mid-Penn Telephone Corporation (MID-PENN) provides phone service to the entire Conneaut Valley, including Spring Township.

Gas National Fuel Gas distribution Company (NFG) provides service to approximately 550 customers in Springboro, Conneautville and in Spring Township along Pa. Route 18 between the Boroughs. This company maintains a high pressure line from Springboro to the Ohio line, but it is not currently in use. This line could be used for distribution, should future demands warrant. The remainder of Spring Township has no natural gas service other than those individuals fortunate enough to have their own gas well. Domestic fuel needs outside the NFG service area are met mainly by local propane and fuel oil distributors.

Schools

Current Status and Needs Public education is provided to residents of Spring Township by the Conneaut School District. The Conneaut Valley Elementary School and Conneaut Valley High School are both located along Pa. Route 18 between Springboro and Conneautville. Information on these schools is summarized as follows:

	<u>Grades</u>	<u>Classrooms</u>	<u>1978-79 Enrollment</u>	<u>Site Acreage</u>	<u>Age & Condition</u>
Elementary School	K-6	22	609	15	Built 1959, Good
High School	7-12	14	592	20	Built 1954, Good

One should note the above figures include students enrolled in special and vocational-technical education. The elementary school includes a multi-purpose room, a cafeteria, a library, a health room and an outdoor playground. The high school includes; shop facilities, a cafeteria, a health suite, library, gym, music and art rooms and athletic fields.

The following needs are identified by educators for these two facilities. Elementary school: additional space for library and for special and general classrooms. High school: additional space for library, seminar use, individual instruction, large group instruction; music activities, laboratory study and indoor recreation facilities. These needs are said to exist without special population impacts. Crowded conditions are primarily the result of "program" increases - not pupil increases.

There is also one parochial school in the Township. The Rundell Christian Day School, located in the village of Rundell, serves the Amish community living in that general vicinity. The school was organized in 1970, and provides instruction through the eighth grade. There are currently 24 pupils enrolled in the school. The school district busses some of these children, an arrangement which is very likely a permanent one.

The Public School in the Community: Issues But Perhaps No Choices. Public schools play a vital role in our social structure. They educate our children; provide a place for social growth and inter-action, and set the stage for the leaders and the followers of the next generation. In addition, school facilities are of unique importance in community development. They are focal points for community life; their size and location has great effect on the organizations of our communities. It is important for citizens and those interested in community planning to know about their school system. This discussion is included in this plan report because sooner or later the issues explored here will be of concern to township people.

In Pennsylvania, under the School Reorganization Act of 1970, many smaller school districts were consolidated into larger districts of between 3,000 and 3,500 students. There are approximately 500 school districts in the state. Crawford County is served by seven school districts only one of which, the Conneaut School District, does not cross into neighboring counties.

The Pennsylvania School Code, Act 24, is the basic enabling legislation which governs public schools throughout the Commonwealth. It establishes the Pennsylvania Department of Education which is responsible for assuring adequate education statewide. It provides for school districts; each district is to be governed by a school board made up of nine members elected at large for staggered six year terms. Within the regulations established by the State, the school board is entirely responsible for the education of our children. They, for the most part, determine what programs and what facilities our children will experience. (However, there are hidden conditions on this power as will be explained later in this narrative.)

Our planning effort in Crawford County is mainly concerned with land use planning and the social and economic consequences of land use decisions. Thus when considering schools we tend to look mainly at the location of existing and future facilities trying to make sure they fit into our communities.

What are the options the local school board has relative to these facilities and what is mandated by the State? Technically speaking, a school board has considerable power. It has complete authority to build facilities where and how it decides as long as certain safety and space requirements are met. The board also has the power to decide on the type of educational programs to be offered, and it has the power to tax. These powers in reality, however, are tempered by the ability of the district to finance its facilities and programs. Very few districts in Pennsylvania, and none in Crawford County, can afford to "go it alone" without requiring outside help. Thus we find strong influences from the State and Federal Governments in our local schools, since they are the major financial contributors.

The subject of State aid needs to be introduced here. A school district which cannot completely support itself (very few can) is eligible to receive substantial state subsidy. Depending on the need, a school district may receive up to seventy percent state subsidy for its annual operating budget. However, the state aid system is extremely complex, so only the very basic elements will be explained here.

First of all the "aid ratio" granted to any school district depends on that district's wealth. It is the determination of such wealth that becomes complicated. Several factors enter into the aid ratio formula; they are:

- (1) The overall population density of the district expressed as the number of people per square mile. As the system now operates, sparsely populated districts and densely population districts are eligible for more aid than are medium density districts. There are no densely populated districts in Crawford County (500 people per square mile), and all districts except Crawford Central are considered sparsely populated (50 or less per square mile) under state regulations.
- (2) The market value of real estate in a district based on actual property sales during the previous year. This should not be confused with assessed valuation which only increases when property is reassessed or new structures are added. If, for example, market values overall in a district rise due to inflation, and at the same time population declines, the state will consider such a district to be wealthier and allow less subsidy (more tax money and fewer people).
- (3) The average daily attendance for a district during the school year. This figure is important because the state limits how much it will aid any school district to approximately \$750 per student per year. Thus a poor district which, based on other factors, may be eligible for a seventy percent subsidy may not receive this amount because of the per capita limit. This policy places a "cap" on the aid ratio formula.
- (4) The state, in recent years, has also attempted to determine the wealth of a school district based on income tax records. Perhaps you recall a question on your state income tax return asking in which school district you live. This approach has not been entirely successful because many people don't bother to answer this question.

In its very simplest terms, the more a district can afford to pay itself, the less it will be subsidized by the State. However, this basic theory has become very complicated by gradual legislative and regulatory changes.

As mentioned previously, the size and location of school facilities are important factors in community development. In theory, a school district has a great deal of flexibility when it comes to facilities. They can build just about anything they want, if they can afford it without outside help and still meet the State's safety and area requirements. However, very few districts, and none in Crawford County, can afford a new school facility on their own. Even if they could, there are still three basic state requirements which must be met before construction on any new school facility can begin. These are: (1) Proof of need, (2) proof of ability to finance, be it local or state aid, and (3) site and building plans approved by the Pennsylvania Department of Labor and Industry. Of course, if local financing is not available for the completion of the entire facility, then financial aid from the State will most likely be required. This changes the picture of local control significantly, since the State may require different plans and will only subsidize facilities considered essential, i.e. classrooms, library, cafeteria, multi-purpose space, etc. Facilities such as, swimming pools, student lounges, plush interiors, etc. will generally not be funded. Also, the State will only subsidize a portion of the entire project based on the district's ability to pay; the rest must be provided by the district itself.

Thus, when it comes to new school facilities, school boards must weigh many factors in choosing the location and type of facility. Among these factors the four most important are probably: economic feasibility, location, design and size of the building, and public acceptance. In terms of economic feasibility and size, larger schools make more sense for several reasons. It is generally less expensive to build a larger facility than it is to build two or three smaller ones to accommodate the same number of students. The larger school requires proportionately less staff, and maintenance, and gets maximum use of expensive common facilities such as the gym, cafeteria, health unit, music room, etc. A larger school can be more efficient because of its built-in space flexibility. In such a school where there are more classrooms, one room can easily serve different uses. In a school with only 6 or 7 classrooms, it is difficult to adjust space if there are sudden fluctuations in enrollment from year to year. If, for example, there were enough first graders to fill two classrooms where only one was needed the year before, in a small school there would be no room for the new first graders since all the other classrooms would be occupied by other grades. A grade school of at least twelve classrooms could normally provide some needed flexibility.

At the high school level, experience has shown that a facility should be large enough to handle between 800 and 900 students. This size minimum affords ample classroom flexibility and can justify extra facilities such as; swimming pools, playing fields, gymnasiums and specialized rooms and equipment. The larger school also allows for social experience with a more diversified group of students and teachers. Such school can offer a wider choice of programs in areas such as; language, art, music, special education, etc.

Public acceptance of the larger or consolidated school is, however, another matter. All too often school administrators and school boards tend to down play or overlook the importance of this acceptance in favor of financial and functional considerations. Or, if public opinion against the consolidated school concept is such that it cannot be ignored, school decision makers tend to claim that they have no choice because of state and federal mandates. Such claims may seem to be the easy way out, but, as we shall see, there is some validity to this argument.

Many citizens, at least in rural parts of the country still place great importance on the concept of the "neighborhood school". The importance of the school, and particularly the elementary school, as a focal point for community life is a fact that should be considered. Some parents prefer an existing or new, smaller and less equipped neighborhood school over a new, larger and better equipped school, simply because of their strong ties to a neighborhood. Perhaps parents who hold out against change to a more consolidated and "progressive" system are in reality expressing what they feel is their last hope of maintaining local control over the education of their children. It appears they believe that, if their children go to a larger school further away they will have less to say about how the school is run. There is also the belief that their children at the elementary level will receive just as good an education in a small "neighborhood" school as they would in a consolidated school. Parents may also resist having their neighborhood lose the identity it has with a public school located in it.

The cost of education today is much greater than it was ten or fifteen years ago. Teachers' salaries, for example, are considerably higher. Educational programs have expanded greatly, particularly at the elementary school level. In one sense the expanded programs, if this is the correct term, are the result of an increasing specialization in the educational process. Learning disability, retarded, handicapped and exceptional childrens programs are required. Programs for this type of youth have been broken out from the traditional classroom setting and are set up specially. These programs require additional classroom space. This is the "critical issue" it would seem in terms of decisions by school districts to, on the one hand, retain older and normally smaller schools and perhaps build small schools - 12 to 15 classrooms - or, on the other hand to build large consolidated schools with 20 or more classrooms.

Speaking only of the elementary schools, if the school district is to go along with the current program trends, established in no small part by the professional educator, they have virtually no choice but to go with the larger school. They could not afford to duplicate all of those expensive space requirements in a series of small schools for a wide range of programs, such as; art and music rooms, a well-sized gymnasium and many athletic opportunities; a health suite, room for the gifted, the educable mentally retarded, those with learning disabilities, or the physically handicapped, let alone a full library facility, a teachers' lounge, assembly room and cafeteria. The school district's decision on the range of its programs in a relatively sparsely settled area such as Crawford County, will decide

whether or not the traditional neighborhood school, serving one or two neighborhoods and relatively small and close to "home", can exist at all into the future. Viewing the trends of the recent decades one is led to the conclusion that people want such a wide range of programs, and they have accepted the educational theory that groups of special students must be "separated out" so to speak instead of main streamed in order to be helped adequately. If this is the case the small school and more intimate neighborhood relationships are things of the past, principally because of financial realities.

But is this the situation? Do the school directors and the public have a realistic choice on program content, and thus indirectly the size of their elementary schools? Is it true that all the local districts must do for their youth relative to the physical school facility, as mentioned earlier in this section, is to make sure it meets state safety and health regulations? If this is the case, then a decision for a narrow range of school programs could make the small elementary school feasible. Smaller schools could be renovated to meet the currently stiffer safety regulations and these schools could remain as physical and emotional centerpieces of historic neighborhoods.

Alas, the issue is not so simple. The expanded school program is a reality which is complex and not easily understood by most people. The answer lies in a quagmire of state and federal laws, rules and regulation. We shall try to shed some light on the issue here, but in the end it is the value system of the citizens and their elected school representatives which will, based on existing realities, determine the stance taken in the school district.

The State and Federal Governments have progressively increased demands on public schools through a wide range of previously non-existent programs. In some cases these programs are mandated by law, and in some cases they are mandated by the "purse strings". This purse string mandate for Crawford County, and most of Pennsylvania, might as well be a legal mandate. Programs and choices which are mandated include:

The three basic criteria dealing with new facilities, mentioned previously: proof of need, proof of finances and approval of building plans.

Chapter 22 of the Pennsylvania School Code outlines basic curriculum requirements, to include the 180 day school year and minimum hours of instruction in the basic curriculum. On the elementary level English, social studies, science, reading, art, music and physical education must be offered in grades one through six - Kindergarten, however, is not a requirement, but once initiated it is almost impossible to discontinue.

Library facilities are required with minimum standards for the number and categories of books - However, there is local discretion as to the physical set up of the facility, i.e., whether it is self-contained in the classroom or in a "central" library.

The Education of All Handicapped Act (P.L. 94-142) is federal legislation designed to help all kinds of handicapped students. The Act requires that all school districts provide a "least restrictive environment" for the education of such students. This means that a school district must, within reason, make the physical and educational facilities as accessible as possible to the handicapped. Thus, we see wheel chair ramps, special toilet and transportation facilities, classes for the blind and hard of hearing, and special staff or facilities for other types of handicapped.

State and federal regulation also mandate that a school district must provide "special education" programs. These are specific programs which must be offered some of which are: the Individualized Education Program (I.E.P.) for handicapped students; psychological testing; speech therapy; learning disabilities; programs for socially/emotionally disturbed pupils; and programs for gifted students.

The Equal Opportunity Act requires that citizens be given equal educational opportunities. This, as most know, has led to integration plans and bussing for many school districts.

A school district, according to Pennsylvania law, must provide transportation to all students in its district who do not live within walking distance from their school. This law includes non-public school students as well.

These are the bulk of the existing state and federal mandates which must be provided by school districts whether or not they accept any outside financial aid. If a school district can afford to meet all these requirements on its own and still have money left over to do what it feels necessary, it can then be very independent. Of course none in Crawford County can afford to "go it alone". They must accept state subsidies and help from intermediate units in order to fulfill state and federal mandates.

What about the facilities issue - the neighborhood school? There is nothing in state or federal mandates which specifically require school consolidation. However, when state aid is used for new facilities it must be used in the most cost effective manner. In most cases this means consolidation in one form or another. None-the-less a school district with citizens willing to pay the price to keep smaller schools could do so if, once again, it could meet all mandates relating to facilities, special programs, and curriculum within its smaller schools. Unless this approach is accepted as a local financial responsibility, or unless these mandates can be "turned back" - the school districts have no choice but to build larger consolidated schools.

The issue of mandates for new and more specialized educational programs introduces the subject of the intermediate unit. After the reorganization of local school districts as a result of the School Reorganization Act of 1970, a gap was left between the

new school districts and the Pennsylvania Department of Education. The gap was one mainly of liaison between districts and the state, and of services to local school districts which were previously provided by the "County Superintendent". To fill this gap, the State created a system of intermediate units which would cover larger areas than the County Superintendent system, and which would have much greater service capability. There are now twenty-nine intermediate units operating throughout the Commonwealth. Although the intermediate unit is a creation of the state, it acts somewhat like a non-profit corporation.

In this part of the State the Northwest Tri-County Intermediate Unit, Number 5 (I.U.-5) located in Edinboro, provides the needed specialized functions. The Unit serves seventeen school districts in Crawford, Erie and Warren Counties. The only district in Crawford County not under the wing of Unit 5 is the Jamestown School District in the extreme southwestern corner of the County.

In terms of organization, Intermediate Unit Number 5 has a board of directors with thirteen members from the seventeen school districts which it serves. The directors make major policy decisions which are then carried out by a sizeable professional staff under an executive director. The Intermediate Unit is funded primarily by the state and federal governments, which combined contributed 96.9 percent of the 1978-79 budget of 9.6 million dollars. Local school districts contributed 3.1 percent to the budget, based on the services they need and their ability to pay.

Services which the Unit provides are extensive and include: special education, management services and instructional services, to name only a few. Special education is by far the Unit's largest responsibility, accounting for forty-three percent of the total 9.6 million dollar budget. There are fifteen programs within the special education field, some of which include: psychological testing for students with speech, vision, hearing, physical and mental handicaps; programs for gifted students, and socially/emotionally disturbed students. Special education staff personnel from the Unit either travel to locations where they are needed, or are assigned to a particular district to help run these programs.

The intermediate unit plays a vital role in aiding school districts, especially in rural areas where districts find it difficult to pay for ever increasing program demands from the state and federal governments. These pressures from state and federal sources have become increasingly more frustrating to local school boards, school administrators and tax payers. Even the leaders of the Intermediate Unit Number 5 who receive outside funds for, and administer such programs are feeling the pressure. John T. Willow, from the Fort LeBoeuf School District and President of the Northwest Tri-County Intermediate Unit Board of Directors, expressed these concerns in his message published in the Unit's 1978-79 Annual Report:

Time after time, members of our Board have been faced with state and federal regulations that are so complex, so costly and so contradictory as to be ludicrous and appalling to all of us. When taking action on some of these matters, I know that each of the Board members in all good conscience is tempted to vote "no" on many occasions, until we are reminded by our solicitor that we are sworn to uphold the laws of the Commonwealth and of the nation and therefore must implement action on programs with which we may not agree.

What's happening? It seems that many special interest groups in the field of education are successful in getting the kind of legislation they want, or in forcing court decisions that interpret the law in their favor. The net result is that an increasing number of special services must be provided. Local districts are being told what they must do and, because the Intermediate Unit can do it more effectively and efficiently, districts are more frequently asking that the I.U. provide these special services. Unfortunately, the services are generally to be performed in ways dictated by people far removed from "where the action is", frequently resulting in a tangled wasteland of ridiculous procedures and systems.

Consider the field of special education. Local school districts are constantly asking for more from the Intermediate Unit because of legislative and judicial mandates, yet we are told that we can expect no more money next year than we received during the current fiscal year. Is this realistic in the face of steadily escalating costs? It appears that our legislators and courts are putting us into a practically impossible situation.

All of us recognize the impact of Proposition 13, but it goes without saying that the increasing mandates imposed on educators and school districts are incompatible with the noble goal of reducing costs and taxes.

There will be an increasing need for the services of an Intermediate Unit in the years ahead. Local school districts simply cannot afford to provide many of the services and programs which the laws now require. The Intermediate Unit, as a service unit, can provide those programs and services much more efficiently and effectively than the individual district. But the increased demands on the Intermediate Unit for such services and programs carries with it the need for more local support of the Intermediate Unit in all those areas where local districts request such assistance. This is particularly true in the areas of management services, instructional materials services, curriculum planning, policy development, federal and state liaison and others where the Intermediate Unit has substantial expertise and is truly able to help the local districts reduce their own costs. What is the alternative? One that certainly does not appeal to many of us - letting the State do it for us.

Mr. Willow's words clearly express the realities of a dilemma faced by school districts in Crawford County. Of course one may question whether the I.U. can provide additional programs "more efficiently" as Mr. Willow states. But the fact remains that the cost of education and the mandates from "outside" are becoming increasingly difficult to deal with. Parents, citizens and planners must be more cognizant of this situation as they relate to decisions made by school boards. School boards and school administrators, for their part, must stay well informed and encourage open communication with their constituents and with the world around them.

Recreation and Library

Spring Township does not maintain any public recreation facilities of its own. Recreation programs and facilities are available at the public schools as well as in Springboro and Conneautville. In Springboro there are three ball fields as well as Mineral Springs Park and a community center. Lord-Mason Memorial Park is used in Conneautville. There is a Conneaut Valley Recreation Association which maintains a park along the east bank of Conneaut Creek just south of Conneautville, and which handles recreation programming. Of course, the countryside of the Township provides good opportunity for hunting and fishing as well as good terrain for winter sport.

Public library facilities are available to Township residents from the Springboro Public Library located in back of the Springboro Fire Hall; and from the Stone Memorial Library located near the center of Conneautville. These libraries are freely open to Township residents by virtue of the fact that the Board of County Commissioners has created a County Library Board and provides funding on the condition that all county residents obtain free service in all participating libraries. The Springboro and Conneautville libraries participate in this system. Through the use of the inter-library loan program sponsored by the State Library Board one can obtain virtually any book from large metropolitan library facilities.

Municipal Governance

Spring Township is a Second Class Township under Pennsylvania law. As such, all powers lie with a "Board of Supervisors" consisting of three Supervisors elected at large by the Township residents for six year staggered terms. The Board of Supervisors meets on the first Monday of each month to conduct the business of the Township. At the present time two supervisors are full-time employees of the Township and the third supervisor works part-time on an "as needed" basis. Most of their work is devoted to road maintenance and supervision, although each year rural township government is becoming more complex as this plan indicates. Other Township employees include: an appointed part-time Township Secretary; an appointed wage tax collector; an appointed sewage enforcement officer, and part-time workers when needed.

The Township has several ordinances related to community development functions:

A building Permit Ordinance, requiring the issuance of building permits in compliance with federal and state flood management legislation.

A Holding Tank Ordinance, governing the use of sewage holding tanks in unsewered areas of the township.

An ordinance authorizing the Northwest Crawford County Sewer Authority to operate and bill customers in the township.

An ordinance creating the Spring Township Planning Commission

There are no zoning, subdivision or land development ordinances in the township; however, subdivision and land development activities can be regulated through the regulatory program of the Crawford County Planning Commission. Spring Township is part of the 24th U. S. Congressional District; the 50th State Senatorial District; the 5th State Representatives District, and Magisterial District 3-1.

Spring Township has an old, but well kept, township building located on the east side of Center Road (T-420) just north of the Hickernell Road. The building is used for public elections and meetings, supervisor's meetings, and planning commission meetings. It is adequate for the needs of the Township at this time. A large maintenance garage is located on the same site. The garage houses two wing plow trucks, two straight plow trucks, one grader, one high lift and a back hoe with a high lift. Although expansion of this facility would be desirable, it is presently adequate for the storage and maintenance of township equipment.

The Spring Township Planning Commission consists of eight volunteer residents appointed by the Supervisors to staggered four year terms, and one member filled by a township supervisor. Commission meetings on the third Tuesday of each month are open to the public. It is the function of the Planning Commission to undertake many responsibilities as provided in The Pennsylvania Municipalities Planning Code, Act 247, and to advise and make recommendations to the Board of Supervisors. This comprehensive planning effort is being done through the Spring Planning Commission, with the help of the Crawford County Planning Commission staff.

Other Services

Solid Waste Disposal The Township does not provide solid waste disposal service (garbage and trash pick up) to its residents. Residents are responsible for arranging the disposal of their refuse. This was made somewhat more difficult, due to the recent closing of the Township's land fill (dump) by state health authorities. However, for those so inclined, there are private refuse

services available. If a household handles waste disposal on its own property, it must do so within state regulations. County-wide, it is felt that there is a solid waste disposal problem principally because of the many governments in the county, none of which are large enough to provide an economic solution to the problem.

Medical and Emergency Services The only medical facility in the Spring Township area is the Conneaut Valley Health Center located in Conneautville. This facility provides a much needed service to the community. The Health Center began operating in August of 1977 after several years of dormancy due to the lack of a practicing physician in the area. It now operates under the auspices of the Community Health Services of Crawford County, Inc., a private non-profit corporation. This center provides "fee for service" medical care five days a week. Its staff includes a physician as medical director, a family health specialist, a registered nurse and a receptionist. Primary care services are emphasized along with emergency service. X-Ray and lab work, nutritional programs, public health screening, mental health counseling, drug and alcohol abuse aid and referral services.

Ambulance and rescue service are provided by the Conneautville Volunteer Fire Department, with backup from Albion. Less serious emergencies are taken to the Conneaut Valley Health Center during the hours when the center is open; serious cases and after hours cases are taken to the Meadville hospitals. There also is a dentist in Conneautville; however, he may retire from active practice soon.

Social Services Project Head Start is a federally funded program which serves the educational, health and emotional needs of Conneaut Valley pre-school children from ages 3 to 5. Conneaut Valley Head Start is located in the Springboro Community Center where a staff of teachers and support personnel operate from 9:00 A.M. to 1:00 P.M. during the school year. Programs include active parent participation and are available free of charge to eligible families. Federal guidelines require that 90 percent of the children served must be from low income families, 10 percent from middle to upper income families, and at least 10 percent must be physically or mentally handicapped. There are many other federal and state social services available to Township residents at the county level.

Churches and Social Centers There are currently four active churches within Spring Township: the Hickernell United Baptist Church, a Lutheran Church on Pa. Route 18, north of Springboro, and Christ Church on Route 18 near the Erie County boundary. There is also a Serbian Orthodox Church on the east side of Pa. Route 18 in Shadeland. The Amish community is active in the Hickernell-Rundell area; however, they hold their meetings in individual homes according to custom.

There are also two active granges; the Rundell Grange and the Spring Grange. The Springboro Lions Club, with active members from Spring Township, meets at the Springboro Community Center, which they operate on a lease basis from the Borough.

Bessemer and Lake Erie Railroad

This very economically healthy railroad emerges from Conneautville in the southwestern portion of Spring Township and traverses the entire north-south length of the Township. The fact that rail service exists in this manner could mean a great deal to the economic life of the Township. The Bessemer company exists mainly to service the U. S. Steel Corporation, but as a public carrier it must serve prospective users where a reasonable demand exists. The existence of this railroad may be a very significant factor in the future development of Spring Township.

SOIL CHARACTERISTICS INFLUENCING DEVELOPMENT

Crawford County is fortunate to have a recently completed official soil survey. It was done by the Soil Conservation Service based on their nation-wide standards. This survey has some significant implications for Spring Township. The results of soil analyses are displayed in two ways in this planning program. First, maps were made measuring (1) agricultural quality, (2) suitability for on-lot sewage installations, and (3) susceptibility to flooding. Soil characteristics are displayed on a property line base map of the Township drawn to a scale of 1 inch equals 1,000 feet. Copies can be seen at the Township Building and in the office of the Crawford County Planning Commission. Secondly, the results of the soils analysis are displayed in a numerical fashion in Table 16 which follows:

TABLE 16

SOIL CHARACTERISTICS INFLUENCING DEVELOPMENT SPRING TOWNSHIP		
AGRICULTURAL QUALITY		
Rating Category	Acres In Category	Percent Twp. Area
Good	1 745	6 %
Fair	23 627	79 %
Poor	4 443	15 %
TOTALS	29 815	100 %
SUITABILITY FOR ON-LOT SEWAGE INSTALLATIONS		
Good	566	2 %
Fair	2 174	7 %
Poor	27 075	91 %
TOTALS	29 815	100 %

Note: Areas of good and fair soils in the above two tabulations were measured from the study maps. The poor category was obtained by subtracting the total of these two categories from the total area of the Township, 29,815 acres.

Source: Maps and computations by Crawford County Planning Commission staff using Soil Conservation Service soils information.

Agricultural Quality

Soils throughout the nation are classified into 8 categories. Classes 1 and 2 are considered good for agricultural use; they drain well and are fertile. Class 3 soils have definite limitations for agricultural use, but with the use of good conservation practices, including the installation of drain tile, these soils are capable of profitable agricultural operations. The remaining classes of soils are considered poor for agricultural use. Table 16 shows 79 percent of the township's soil is Class 3 (fair for agriculture). This means that for the township's soil to be useful for active, profitable agriculture good management and conservation practices must be employed. Spring Township, in other words, needs careful, thoughtful and diligent farmers in order to have a strong agricultural economy. But another point needs to be made relative to soil classes and agricultural potential. Class 1 and 2 soils and to a certain extent Class 3 soils are rated the way they are based on likely yields for field crops. Crawford County's strength agriculturally is based not on field crops, but on its dairy industry. Farmers are not deeply dependent on "first class" crop land in order to manage successful dairy farms. In fact the wet soils of Spring Township and of Crawford County are favorable for dairying when managed by capable farmers.

Suitability for on-lot sewage installation: All soils in the county have been coded in three ways relative to their abilities to accept and purify residential sewage effluents. These three categories are termed good, fair and poor - for the construction of on-lot sewage systems. Good soils will accommodate conventional on-lot systems namely septic tank and drain tile construction. Fair soils perhaps can accommodate conventional system construction but more likely will require the more expensive alternative systems such as the elevated sand mound. Poor soils are judged unsuitable for on-lot systems. Spring Township, based on the standards built into the soil analyses, has 91 percent of its land in the poor category - a dismal rating. Since the state and township officials recognize properties over 10 acres as agricultural and hence not subject to normal on-lot sewage system permit requirements, systems are installed and life goes on. The land, however, presents strong constraints relative to rural residential - suburban - development.

Flooding: Soil types that have been deposited over many, many years as a result of flooding on the land dictate delineation standards for the map developed indicating this condition. Until careful and expensive water flow studies are completed to delineate flood hazard areas the soil survey and mapping technique is the best method available, in the opinion of the writers of this report, to determine lands subject to flooding. The analysis of flood type soils as developed in this study indicates that 2,977 acres in Spring Township, or approximately ten percent of the township's land area, are subject to flooding hazards.

GROUND WATER RESOURCES

Good information is available on ground water resources in Western Crawford County from a recently completed geological report entitled: "Geology and Hydrology of Western Crawford County". The material in this section is based wholly on this report. In Spring Township, as in nearly all of Crawford County, water must be obtained from the ground. Thus, the availability of ground water throughout the Township is a condition to reckon with in developing a plan for growth.

Ground water resources in Spring Township are based on geologic features underlying the ground we live on. These features in simple terms are two major geologic formations: the glacial drift and bedrock formations. The entire Township is covered at its surface by glacial drift. This drift is the "leavings", so to speak, of the glaciers which once enveloped our area. The drift varies in depth from about 2 to 26 feet except for major stream valleys and low places where it is much deeper. In some portions of the Conneaut Creek Valley this drift goes as deep as one hundred feet. Two other locations of deeper deposits of drift are the area southeast of Hickernell and the extreme northeast corner of the Township. In both these areas the drift is also approximately one hundred feet deep.

Glacial drift is the term given to all material deposited by the glaciers. Material deposited directly without any sorting is called till, which could be anything from clay to boulders. Firm till is called "hardpan" by well drillers. In some cases till deposits were accompanied by a sorting process caused by streams or ponds of melting water which consolidated (put together) large amounts of sands and gravels. These deposits are called outwashes, and usually provide a plentiful source of ground water.

The second major geologic formation is the bedrock under the glacial drift. These are named Devonian Shales and underlie the entire Township. A property line base map of the Township has been prepared on which the following information is displayed:

- Topographic contours of the Devonian Shale bedrock formation.
- The aerial extent of the outwash deposits.
- Locations of 118 wells for which well log data is tabulated.
- Fracture trace lines.

Information obtained from 118 drilled wells is printed in a separate listing which is available or explained elsewhere in this report. This information demonstrates the following facts relative to the availability of water in Spring Township:

The best source of well water is in the outwash deposits found primarily in the Conneaut Valley. Of sixteen wells recorded in the outwash deposits in Spring Township, the average yield is 16.5 gallons per minute (GPM). The median yield is twelve GPM. Throughout western Crawford County the yield from outwash area wells is twenty GPM. In Springboro there are wells in the outwash deposits which have reported yields of 158 GPM. Wells in this deposit seldom ever have to go below one hundred feet. Over ninety percent of the wells in western Crawford County which are completed in glacial drift tap the outwash deposits. Outwash deposits hold and transmit water extremely well.

Till deposits are normally poor sources of water. Only six percent of the wells completed in glacial drift in the "western" County tap till deposits. The median production of these wells is six GPM. In Spring Township we have data on six till wells. The average and median yield of these wells is 11.6 GPM.

Three out of four wells drilled in western Crawford County are completed in bedrock. Except where the underlying bedrock is the Devonian formation bedrock wells are satisfactory. The Devonian Shales, however, are very dense and transmit water poorly. Most wells in Spring Township are completed in these shales. We have data on seventy-seven such wells; the median yield of these wells is five GPM. Often wells drilled to the Devonian yield only one to three GPM. Most wells in the township tap the Devonian Shales since most of the land area in the township has a comparatively thin layer of till, and then one encounters the Devonian.

Salt water infiltration is particularly dangerous in the Devonian Shales. It is important to just catch the weathered top course of the Devonian in drilling a well to avoid salt water. This means wells should not normally be deeper than fifty feet, reaching just to the top portions of the Devonian Shales formation.

The situation being what it is in terms of the Devonian Shales, it is often wise in seeking water for a household to install a dug well, tapping only the till layer. Such wells should be at least three feet in diameter and must be protected from contamination.

The water produced in the Township, no matter from which deposit, is normally hard containing high amounts of calcium and magnesium.

The average amount of water used per day per person is between sixty and seventy gallons. The average household uses three hundred-fifty gallons per day. The average household can be supplied by a well pumping on demand if a three GPM capacity exists. Where a household can obtain only one GPM this will suffice if storage facilities are available and the household exercises care in water use.

The map displaying the information discussed in this section also includes lines called fracture traces. These are lines visible on aerial photographs and have been transferred to a map of the Township. They indicate a subsurface fracture and it is likely that water is concentrated along such a fracture. The ideal point to drill a well is at the intersection point of fracture traces. Fracture trace zones range in width from fifteen to sixty feet.

The relative availability of water in the various areas of Spring Township has a definite bearing on the issue of what sort of growth policies the Township should adopt through its comprehensive plan.

GAS AND OIL EXTRACTION

Over the years rather extensive gas and oil well drilling activities have occurred in Spring Township and in neighboring municipalities. Based on records kept by the Pennsylvania Bureau of Topographic and Geologic Survey approximately 115 gas and oil wells have been drilled in Spring Township; in reality there are probably more wells than this.

Most drilling operations aim to secure gas production. In the process of obtaining gas the wells also yield water and oil. Sometimes drillers in cracking the subsurface rock patterns in order to obtain a better yield of gas change these patterns in such a way as to make the wells uneconomic to operate. Virtually all of the wells operative in Spring Township are producing gas.

A network of gas producing wells requires a piping system to conduct the gas to gas utility distribution lines. Although such lines are hardly visible to the public, they do in fact exist in the Township. In addition to the piping systems oil storage and separation tanks normally accompany gas extraction operations. These tanks are very visible and signal that extraction operations are occurring.

From conversations with various persons associated with gas and oil extraction operations it appears that this activity is on the increase in northwest Crawford County. It would appear that more drilling will occur in the future, especially since current prices for these products are higher than formerly. What the implications of gas and oil extraction activities are for the future growth and development of the Township are unknown at this time. Should there be considerably more drilling activity and should the extraction product include oil, as has occurred along roads like L. R. 20048 in nearby Summerhill Township near Rundell, the Township would have to consider carefully the effect of extraction activities on rural character. L. R. 20048 is lined with oil jacks; they make a significant presence in the landscape.

MUNICIPAL FISCAL ANALYSIS

This analysis presents a summary of previous trends in receipts and expenditures for Spring Township, as well as a summary of assessed valuation and tax millage rates in past years. The intent of this analysis is to determine the Township's financial capability to handle existing and future programs and services.

Township Receipts

A summary of receipts for the Township from 1973 to 1977 is presented in the appendices of this report. Total receipts have fluctuated throughout this five year period; however, within that time there was a net increase from \$104,238 in 1973 to \$131,091 in 1977. This is a 25.8 percent increase over five years or an average yearly increase of 5.2 percent.

Receipts are classified in two different categories, revenue receipts and non-revenue receipts. Revenue receipts are those receipts that increase net assets without increasing debt liabilities; such as, taxes, grants, or fines. Non-revenue receipts include all income which does not alter the Township's net value; such as, sale of property, securities, and equipment. Revenue receipts comprised the vast majority of receipts averaging 89 percent of total receipts over the five year period. Non-revenue receipts averaged only 11 percent of the Spring Township's total receipts from 1973 to 1977. Chart 17 shows the relative importance of one type of revenue to another.

Real Estate Tax Collection Revenue from real estate taxes averaged about one tenth (13%) of the total revenues received for the five year period. The dollar amount of revenues increased steadily from 1973 to 1977 and the percent of total receipts was fairly close to the average for each of the five years. These real estate tax trends can be better understood by examining the trends in assessed valuation and millage rates.

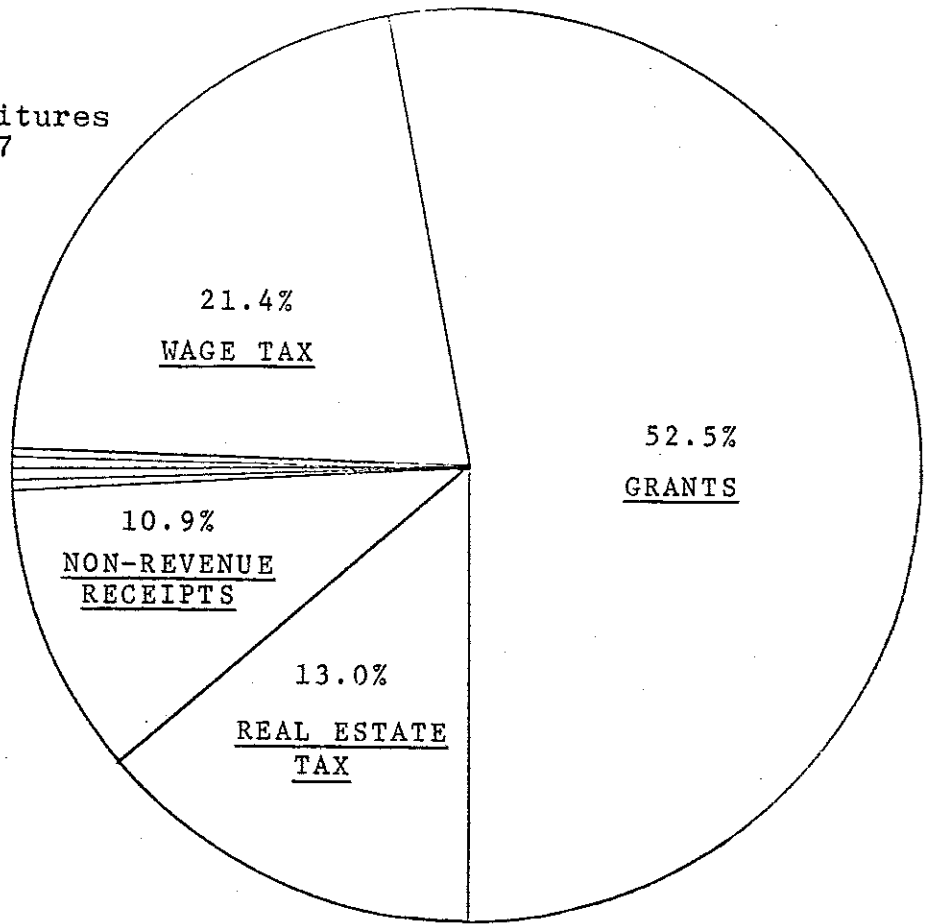
Table 18 shows that the millage rate of 13 mills has remained constant over the five years, while the total assessed valuation has increased steadily from \$1,082,450 in 1973 to \$1,354,950 in 1977, an increase of 25.2 percent. Recent figures for 1978 and 1979 show that the assessed valuation is continuing to increase, although there was a slight decrease in actual yield from 1977 to 1978. It should be explained here that the assessed valuation is determined by taking 30 percent of the replacement value for a structure based on 1971 dollars. This base will not change until the entire County is reassessed. The tax millage can be changed by the township supervisors.

CHART 17

Average Revenues & Expenditures
Spring Township, 1973-1977

REVENUE SOURCES

Other	.4%
Licenses & Permits	.4%
Interest & Rent	.5%
Fines	.9%



EXPENDITURES

Health and Sanitation	0.1%
Interest	
Tax Collection	
Fire Protection	
Municipal Building	
Miscellaneous Expenses	

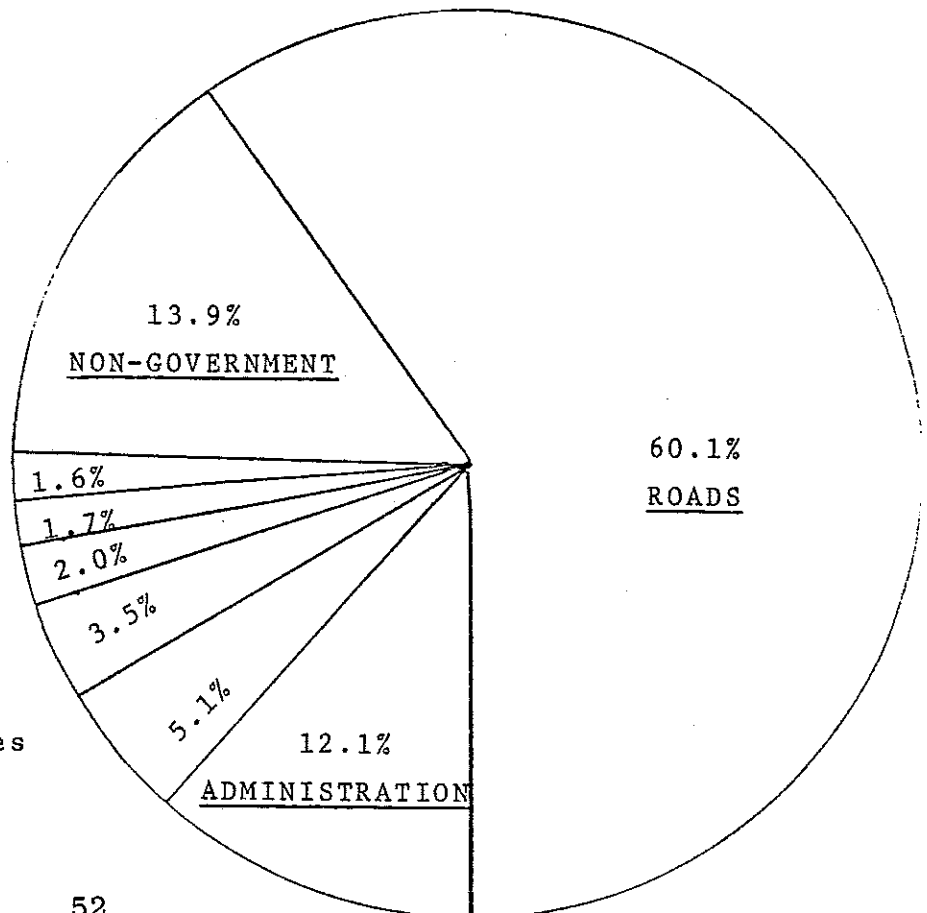


TABLE 18

TRENDS IN ASSESSED VALUATION AND MILLAGE RATES SPRING TOWNSHIP 1973 - 1979				
YEAR	ASSESSED VALUATION	MILLAGE RATE	100% TAX YIELD	ACTUAL YIELD
1973	1 082 450	13	14 072	13 506
1974	1 183 850	13	15 390	15 351
1975	1 244 850	13	16 183	15 763
1976	1 286 500	13	16 725	17 006
1977	1 354 950	13	17 614	18 722
1978	1 399 850	13	18 198	18 252
1979	1 498 850	13	19 485	--

Note: Assessed Valuation is computed at 30 percent of replacement value using 1971 dollars.

Source: Township audit reports and records of the County Assessors Office.

Wage Tax Collection The wage tax brings in revenue from all working Township residents. Currently each worker is taxed at $\frac{1}{2}$ percent by the Conneaut School District. Persons who work outside the Township have their tax deducted by their employer, who pays it to the local governments, Spring Township and the school district. This tax provided over one fifth (21.4 percent) of total township revenues from 1973 to 1977. Within this time the yearly figure fluctuated, (see Appendix) but there was a large net increase of forty-three percent over the five years. The 1978 wage taxes received were \$30,615, slightly less than the \$30,864 collected for 1977. The fluctuations in wage tax revenues are probably best explained by such factors as changes in wages and employment and changing collection techniques.

Grants All grants from federal, state and county governments to the Township are included in this category. In each of the five years analyzed, state liquid fuels grants were, by far, the largest revenue source. These grants averaged 67.9 percent of total grants from 1973 to 1977. Other major sources were Federal Revenue Sharing funds which provided an average of 24.5 percent of the total grants over the five year period.

In 1973 grants were a greater percentage of total revenues than in any other year. This was due to an unusually large grant of \$6,904 from the county in that year. After 1973 the amount of grants increased only moderately in the next three years. In 1977, however, there was another sharp increase in the amount of grants. This was mainly because of the institution of the Federal Anti-recession Grants Program and a large grant from the county liquid fuel taxes fund. In total, grants averaged 52.5 percent of all receipts, and in each of the five years analysed, they were the largest category of receipts for the township.

Licenses & Permits, Interest & Rent, Fines These categories, when combined, comprised an annual average of only 1.8 percent of total receipts over the five year period. All three of these categories fluctuated quite a bit, but both interest and rent, and fines showed a substantial net increase from 1973 to 1977.

Departmental Earnings Departmental earnings are payments by an individual or agency made in return for specific services performed by the municipality. For the purposes of this study these earnings were broken down into specific services such as recreation, highway services, and solid waste disposal. The only year that any departmental earnings were received was in 1973 when \$220 was paid to the township for solid waste disposal. Other revenue receipts include refunds of one type or another and averaged less than one percent of Total Receipts from 1973 to 1977.

Township Expenditures

Total expenditures, like total receipts, fluctuated over the five year period. They showed a net increase of 25.2 percent from 1943 to 1977, only one-half percent less increase than that of receipts. There are two different categories of expenditures, governmental and non-governmental. Governmental expenditures are those that cover the actual cost of government services, such as maintenance, administration, and capital improvements. All expenditures which do not relate directly to governmental operation, such as principal payments on indebtedness and certificate purchases, are classified as non-governmental expenditures. As Chart 17 shows, governmental expenditures made up the vast majority of expenses comprising about eighty-six percent of the total expenditures over the five year period. (Also refer to the expenditures table in Appendix).

Administration All salaries, wages, materials and other expenses incurred during the operation of the township are included in this category. An average of about one tenth of total expenditures were spent on administration. Between 1973 and 1977 non-administrative expenses rose slowly and steadily except in 1976 when they were almost three times higher than in any other year. This increase was due to an expense of \$31,000 for the purchase of a new road grader.

Municipal Buildings and Offices This category includes all expenses incurred for the maintenance and repair of municipal buildings and offices. It averaged 3.5 percent of total expenditures for the five year period but fluctuated quite a bit within that time. This expense was highest in 1973 when over \$8,000 of federal revenue sharing funds were directed to this use.

Health and Sanitation This broad category covers health related services ranging from garbage collection to Board of Health Services. In Spring Township the majority of such expenses were in support of the Board of Health Services. However, in three out of the five years surveyed these expenses were a negligible portion of the yearly total. Over the five years health and sanitation expenses averaged only .1 percent of the total.

Roads This category includes all expenses incurred in the maintenance and improvement of township roads. This was the largest expense for each of the five years analyzed, averaging about sixty percent of total expenditures. In 1974 it was exceptionally high, averaging 71.6 percent because of an expenditure of over \$38,000 for street and road repair.

Interest This category includes all interest paid on debts incurred for governmental purposes. Spring Township incurred a tax anticipation debt of \$13,000 in 1972, a federal revenue debt of \$40,000 in 1974, and a federal revenue debt of \$31,000 in 1976. The 1974 debt was paid off in 1976 but the other two were still not fully paid off in 1977. Interest on these debts averaged 1.6 percent of total expenses over the five year period.

Miscellaneous This category includes any expenditures that do not fit into the above categories, such as employee payroll taxes and insurance. These expenses averaged 5.1 percent of the total for the five year period and increased steadily throughout that time.

Summary of Receipts and Expenditures

Several major points can be made from the preceding analysis:

Both receipts and expenditures showed a net increase of approximately twenty-five percent from 1973 to 1977.

The amount of tax revenue from real estate increased substantially from 1973 to 1977 due to an increase in total assessed valuation.

Grants were the major source of receipts comprising an average of 52.5 percent of total over the five years. The largest single source of grants was state liquid fuels.

The major expenditure between 1973 and 1977 was for highway services. This expense averaged 60.1 percent of total expenditures.

Debt Limitation

The Local Government Unit Debt Act, Pennsylvania Act 185, restricts the amount of debt a local municipality can incur. According to the Act, a township can incur a debt of up to two hundred-fifty percent of the arithmetic average of total revenues for the three years preceding the debt. Using 1978 as an example, the debt limitation for Spring Township is \$285,566 (2.5 times the average of total revenues from 1975 through 1977). Since Spring Township's debt in 1978 was only \$20,440, it is evident that the Township could finance desired programs and projects by incurring a further debt.

Overall Tax Burden

The individual tax burden upon each taxpayer in a township is an important consideration in any review of local finances. As discussed previously, a 13 mill tax on real estate was levied through the five year period from 1973 to 1977. The township also imposed a one-half percent wage tax on all residents. The following listing shows these taxes, as well as school district and county taxes, that Spring Township residents were subject to in the five year period:

	<u>Real Estate Tax</u>	<u>Per Capita Tax</u>	<u>Wage Tax</u>
Township	13 mills	--	.5 %
School District	64 mills	\$15	.5 %
County	13 mills*	\$ 5	-
	<u>90 mills</u>	<u>\$20</u>	<u>1 %</u>

* 11 mills before 1976

The following example shows how township taxes affect the average resident. These figures represent the 1978 tax burden using a hypothetical family of four (two adults and two children under 18 years old) earning the mean family income of \$14,180 (1970 U. S. Census plus seven percent per year) and living in an average \$16,989 home (mean value for owner occupied units, 1970 U. S. Census plus ten percent per year) assessed at thirty percent or \$5,097.

Township Taxes

Real Estate Tax (13 mills x \$5,097 assessed valuation)	
(.013 x \$5,097)	= \$66.26
Wage Tax (.005 x \$14,180)	= 70.90
	<u>\$137.16</u>

School District Taxes

Real Estate Tax (64 mills x \$5,097)	
(.064 x \$5,097)	= \$326.21
Per Capita Tax (\$15 x 2 adults)	= 30.00
Wage Tax (.005 x \$14,180)	= 70.90
	<u>\$427.11</u>

County Taxes

Real Estate Tax (13 mills x \$5,097)	
(.013 x \$5,097)	= \$ 66.26
Per Capita Tax (\$5 x 2 adults)	= 10.00
	<u>\$ 76.20</u>
TOTAL TAX BURDEN:	\$640.53

Conclusion

In conclusion it appears that Spring Township is now able to provide an adequate level of services using local tax revenues and grants from county, state and federal sources. However, should future development occur at a rapid rate the supervisors likely would have to raise taxes in order to maintain a satisfactory level of government services.

ROAD ALIGNMENT STUDIES

As mentioned in the Road System section of this report, there are a series of three rather sharp curves on Route 18 between Conneautville and the Erie County boundary line. A special study was done examining how these curves may be reduced in severity. This study is available at the township building and in the Crawford County Planning Commission office. Proposals were made to realign each of these three curves. Additional right-of-way would have to be required in each instance. A more detailed account of each of these three proposals follows:

Curve at the Erie County boundary line. This curve is located entirely in Erie County. A two thousand foot radius was used to soften the effects of this curve which caused the deaths of two motorists in 1978.

Where Township Road 889, Conley Road, intersects Route 18 there is an abrupt curve on the Route 18 alignment known as the Spisak Curve. The plan study uses a two thousand foot radius to temper the effects of this curve. In redoing this intersection the sight distances for turning movements out onto Route 18 would be improved.

Campground Curve just north of Conneautville at the intersection of Fisher Road/Morris Road (T-801) is the section of roadway which has the greatest safety hazards in the opinion of most persons in the township. With the required acquisition of only one structure, a mobile home, an entirely new section of roadway approximately 1.1 miles in length has been sketched. This section of new road would eliminate Campground Curve and would be located as much as eighteen hundred feet west of the existing roadbed. Existing roads as they would intersect the new section of road would be realigned at the points of intersection so that safe, efficient connections are made. The existing section of Route 18 which is by-passed, so to speak, can be the center of a development area where residential uses predominate. The two public schools located here provide a strong focus for such a residential district. In addition to this, the 1.1 miles of new road would open up new land for development. This new land would have access to the nearby sanitary sewer system. A plan suggesting new development in this area was also developed.

Conversations with PennDOT District 1-0 staff indicates that the record of accidents on Route 18 in the area discussed in this report is such that the road does not qualify for safety improvement projects funding available from the Federal Government. Projects such as described above can qualify for federal funding as safety improvements if the accident record is severe enough.

Another element considered in the evaluation of improvements to Route 18 was the tree-lined character of the roadway. Route 18 from the Erie County line south to Conneautville is a unique road in Crawford County in that it is flanked along most of its way by very large deciduous trees set on banks somewhat higher than the elevation of the road itself. To destroy this roadside character would appear to be most unfortunate. The trees are planted in nearly all instances on or very near the right-of-way line, which is only fifty feet wide, not very wide for a minor arterial road which is what this road's classification is. However, PennDOT officials indicate that except for realignments necessary to eliminate the hazardous curves discussed above a roadway widening to 22 feet is possible within the existing 50 foot right-of-way. This means Route 18 can become an adequate minor arterial highway without reconstruction that would alter its overall environmental character.

OPPORTUNITIES AND PROBLEMS

The Spring Township plan should recognize opportunities that exist in the Township and should address community problems, particularly as these opportunities and problems relate to the physical growth and development of the Township. Following is a list of statements which are meant to describe such opportunities and problems. It is unlikely that this list is complete. It should be added to as the Township continues to deal with the issues of community development through the planning process.

Opportunity Or Problem

The impending construction by the U. S. Steel Corporation of a large steel making complex means many new jobs will be available close at hand, and many new people, at least relatively speaking, will be looking for residential, commercial and industrial sites on which to build. The Township's economy inevitably will "heat up".

Opportunity

The Township's landscape is attractive; it has a quiet rural character with enough change of elevation and of land form to make it interesting. There are many streams, sharp drainage ravines, woodlands and cropped fields all of which provide rich variety.

Opportunity

There is a wealth of public roads in the Township, which provide access to many parcels of property. The Township portion of this road system is maintained well for the traffic they now receive.

Opportunity

The Township land market, relatively speaking, is inexpensive.

Opportunity

Two boroughs are located within the outer boundaries of the Township. These boroughs provide a number of community services close at hand; for example, fire protection, library service, health care, etc.

Opportunity Or Problem

A portion of the Township between the Boroughs of Conneautville and Springboro is served with a sanitary sewer which can support a higher level of development than is normal to most townships in the county.

Problem

The state roads in the Township are not constructed or maintained to standards that can support large volumes of traffic. This is particularly true of the principal road into and out of the Township, Route 18.

Problems Or Opportunitites

Route 18 from the Erie County line to Springboro has a unique appearance due to the numerous large trees which line its right-of-way in most areas.

Problem

Safety hazards for motorists exist along Route 18, particularly the Campground Curve and the Spisak Curve sections.

Problem

The Township maintains many bridge structures; approximately twenty-two. The larger of these structures need maintenance and reconstruction work which is expensive for the Township.

Problem

PennDOT's road system is not maintained in a way adequate to needs.

Problem

The right-of-way width for nearly all roads in the Township - state and township - is 50 feet. This width is not adequate to maintain and properly drain most sections of road.

Problem

Most of the Township's soil is unsuitable for the construction of normal on-lot sewage systems and requires under drainage construction for efficient agricultural use.

Problem

Most of the Township has poor groundwater resources to draw upon for potable water.

Problem

There are a number of houses which have deteriorated considerably or which have been abandoned and are still standing.

Opportunity

The Township has a rich cultural heritage in that the Shadeland Farm, once world renown, is located in Spring Township's portion of the Conneaut Valley.

Problem

The abandoned right-of-way of the old Erie to Pittsburgh Railroad now owned by the Penn Central Railroad Trustees threads through active farming and rural areas in the western part of the Township. The best use of this right-of-way would be to return the land to adjoining property owners. But the Trustees are seeking the highest return they can obtain from this land, and an early disposition of the right-of-way does not seem possible.²

Opportunity and Problem

The Bessemer and Lake Erie Railroad is located in Spring Township, and it could be a catalyst for industrial development. There are at-grade road crossings along this right-of-way which cause safety problems.

Opportunity

There are approximately forty-three full-time or active part-time farmers in the Township.

Opportunity

Gas and oil resources can be mined in the Township.

Opportunity

The elementary and high school facilities serving the Conneaut Valley are located in the Township.

Problem

Fire and police services provided the residents are geared to a modest rural population and would be expensive to expand if user demands became heavy.

Problem

There are few medical and dental services handy to the residents.

Problem

Many commercial and shopping needs can be handled only through travel of considerable distance.

Problem

Most residents must leave the Township to find employment.

Problem

The Township's budget is small and cannot sustain new programs involving heavy outlays of money for staff or "hardware" items.

REGIONAL CONTEXT

INTRODUCTION

Spring Township is part of a much larger social, economic and political community. Although its governing body, the Board of Township Supervisors, has the power to do many things, the Township depends on the county, state and federal governments to provide many needed services. In addition to this it is often necessary to cooperate with adjacent townships and boroughs on many issues. No municipality is an "island". This section is devoted to a discussion of some pertinent issues in connection with the Township's regional context.

NORTHWEST PENNSYLVANIA FUTURES COMMITTEE

In March of 1977 the state government, aware that the U. S. Steel Corporation was expecting to construct a large steel making complex on Lake Erie at the Pennsylvania-Ohio boundary line, organized the Northwest Pennsylvania Futures Committee (NWPF). The leadership at the state level in organizing this Committee came from the Department of Community Affairs and the Governor's Office. The original voting membership included seven persons from the state each representing interested and involved departments of state government and seven so called local members; three persons appointed by the Crawford County Commissioners; three persons appointed by the Erie County Executive, and one person from Northwest Pennsylvania Regional Planning and Development Commission. Also invited to serve as non voting members of the Committee were officials from Ohio and U. S. Steel.

The purpose of NWPF was to insure coordination of county and municipal planning in the impact area of the proposed mill, to provide staff to handle issues of a regional concern, to provide a forum for the exchange of information and to develop an organization that could assist the local municipalities and the counties in competing favorably for State and federal grants. Currently the Futures Committee, as it is called, has a staff of three persons. The voting membership of the Committee has been changed, but it is still pursuing its same objectives. The Committee has met once a month for almost two years and has provided a forum for the exchange of ideas in connection with the planning for impacts expected from this large complex. It was through aid from the Futures Committee that planning funds were provided to the Crawford County Planning Commission to undertake municipal planning in western Crawford County. To date, the Futures Committee has not seen fit to develop a regional plan for settlements relative to the impact population. This task will probably not be done because it is the feeling of most people involved with the Committee that each municipality itself along with each of the two counties should do its own planning and cooperate among themselves in terms of the regional context. The Committee, however, is doing a detailed projection of where the impact population is most likely to settle and it may eventually make comments on individual municipal community plans relative to settlement trends set in motion by the advent of the steel plant.

Before U. S. Steel can build the proposed plant an environmental impact statement must be completed. Work on this statement has been going on approximately two years. Currently the U. S. Corps of Army Engineers, responsible for the statement, is obtaining a final round of comment. By the end of May (1979) all comment must be entered for the record and the statement will be complete and its declarations announced - very likely in June or July (1979). Then, of course, the U. S. Steel Corporation will make its final decision relative to building the proposed facility.

The Crawford County Planning Commission staff expects to use the impact population and population distribution forecasts that have been developed by the Futures Committee staff. These forecasts will be discussed in a subsequent section of this report. Staff of the Futures Committee is developing a series of technical reports on various tools municipalities can use to manage and control growth. These reports are available from the Committee office in the Springfield Township Supervisor's building in Erie County.

The Northwest Pennsylvania Regional Planning and Development Commission (NPRPDC) was asked by the Futures Committee to do a regional transportation study. In connection with the Spring Township area NPRPDC has indicated that Route 18 should be the major road into northwestern Crawford County; it also is supportive of a bypass south of Albion facilitating north-south traffic moving through the Albion area and east-west traffic on U. S. Route 6N.

CRAWFORD COUNTY COMPREHENSIVE PLAN

The County's comprehensive plan is a general guide for development throughout its 51 municipalities. Individual municipalities doing their own plans should be aware of its proposals, but they are free to depart from them if they think such course is in their best interest. The county land use plan indicates most of Spring Township to be in rural/agricultural use. There are some exceptions, however: (1) residential development is proposed into the Township north out of Conneautville and south out of Springboro, (2) a tract of land between the Bessemer Railroad and Route 18 between Springboro and Conneautville is proposed for industrial use, and (3) a public open space/recreation use is proposed along the unused Conrail right-of-way. All of the issues implicit in these recommendations have been discussed by the Spring Township Planning Commission. The only proposal which clearly does not fit with the values and objectives of the Township is that of the public recreation use of the Conrail property.

The county comprehensive plan is being considered for revision currently. The railroad right-of-way recreation proposal has been dropped from the plan. Also the area in Spring Township between the two boroughs and extending up to Shadeland north of Springboro is proposed for what is termed a community development area which indicates balanced development should be encouraged to locate here. The remainder of the Township is proposed for either agricultural or rural development uses.

The county's major highways plan does not use the Federal Function Classification System's nomenclature for its road proposals. It proposes Routes 18 and 198 to be primary highways and Shadeland, Hickerneel and Hewitt/Mehalic Roads to be collectors; no so called secondary highways were proposed for the Township. This plan, however, currently is undergoing revision and road categories are being assigned based on the new functional system. Under the proposed revision the following is proposed: Route 18 - a minor arterial; Hickernell Road L.R. 20052, Route 198 west of Conneautville - major collectors; L.R. 20051/20047 (north-south through Hickernell), L.R. 20122 (Fisher Road), L.R. 20041 (Beaver Road) - minor collectors. The remaining state and township roads - collectors (called locals in the federal functional system).

County planning staff, as they have worked on revising the County's major highways plan, have discussed the implications of the suggested road classifications and the implications these classifications have in terms of priority travel routes and pavement characteristics (whether gravel or paved bituminous) with Erie County. Pennside Road in Erie County going west from Route 18 just north of the Spring Township boundary and L.R. 25079 in Erie County are classified currently as minor collectors in Erie County. Crawford County planners recommended to Erie County to downgrade the classification of these roads to "local" in keeping with the fit of this road system with Pennside Road, T-390, in Spring Township. Also Conneaut Township's (Erie County) road T-352 going from Keepville south to Spring Township's Pennside Road should be maintained as a gravel road to match the pavement character in Spring Township; these were the recommendations given to the Erie Metropolitan Planning Commission by the Crawford County planners. Erie County planners were also apprised of the proposed classification system in Spring Township in the vicinity of Pont, namely that L.R. 20036 (Crossingville to Pont Road) was recommended to be downgraded to a "local" road from a minor collector.

The proposed revision to the county major highways plan also indicates Route 198 from the I-79 interchange to Conneautville should be a minor arterial highway and that L.R. 20038/20043 from Conneautville to Linesville should be a minor arterial. In summary a regional context for the revision to the county's major highways plan sees the public road as the forerunner of development; it states that the highway should be located and managed in harmony with growth management and land use plans. Gravel roads, for example, are admirably suited in rural and agricultural areas and should normally be maintained this way unless more intensive development is desired along and in the vicinity of these roads. Roads management is seen as a part of growth and land use management.

In summary a regional context for highways would indicate that for Spring Township the main through road would be Route 18. Hickernell and Beaver Roads form an east-west movement corridor through the Township, but it is of much less significance than north-south Route 18. Route 198 makes a needed and important connection to Ohio and L.R. 20051 makes a connection with Pont and rural Elk Creek Township, Erie County. The remainder of the roads moving into and out of the Township are considered primarily of local interest and might easily be managed in keeping with the agricultural/rural development character they are part of.

RELATIONSHIPS TO ADJACENT MUNICIPALITIES

Spring Township on its north and south boundaries is adjacent to four townships which do not have comprehensive plans or zoning regulations. Two of these townships, adjacent to its south boundary line, are in Crawford County; they are Conneaut and Summerhill Townships. The other two townships are in Erie County. They are Conneaut and Elk Creek Townships. Each of these four municipalities are primarily agricultural/rural. Beaver Township lies to the west of Spring Township, and it is now going through a comprehensive planning program. Land use plan ideas in Beaver Township indicate that the lands adjacent to Spring Township should be agricultural/rural. Cussewago Township lies against Spring Township's east boundary line. Cussewago Township participated in a planning program approximately 10 years ago. Its comprehensive plan shows the lands adjacent to Spring Township for agricultural/rural use, and the zoning ordinance adopted by this Township reflects this land use.

The more complicated land use relationships are with the two boroughs, Conneautville and Springboro. Most of Conneautville borders on the Township whereas Springboro is surrounded on all sides by the Township. Conneautville has a comprehensive plan and a zoning ordinance. All of the land in the borough adjacent to Spring Township is scheduled for residential use except for a strip along Route 18 between the highway and the Bessemer Railroad which is zoned for commercial use. In the case of Springboro this community is currently developing a comprehensive plan. Except along the Bessemer Railroad going north out of the borough the lands along the Spring Township boundary in the borough are tentatively scheduled for residential use. The strip of land east of the Bessemer Railroad going north out of the borough is being planned for industrial use.

The affairs of the two boroughs have always been closely tied to Spring Township. The boroughs have traditionally provided many of the services used by township residents. This is true in the areas of fire protection and recreation. It is also true of commercial services although less so today than 30 years ago. There would be no sanitary sewer facility in part of Spring Township except that Conneautville and Springboro are located as they are.

THE PLAN

PRELIMINARY REMARKS

The meaning of a plan - a comprehensive plan which is the term in common usage today - is sometimes hard for persons to understand. Often times those responsible for helping municipalities make plans are not as helpful as they should be in making the meaning of a plan clear. Let it be said that the plan is reflected only in part by a map of the Township on which the most desired uses of land are established. This is normally called a land use plan. Such a plan is part of this report. A mapped plan should also show the proposed location for community facilities; such as, highways, park areas, municipal buildings, schools, sewer and water transmission lines, etc. In Spring Township, however, there are not many discernable needs for much in the way of additional facilities in the foreseeable future. (See the ensuing population forecast section.)

In proposing land uses and facilities a time period needs to be introduced. Most plans are based on 20 year periods, and this plan is based on 20 year time period thinking - but with qualifications. The U. S. Steel plant proposal is so elusive that the plan developed should be considered a "first cycle" effort; growth, needs, trends should be evaluated again no later than five years from the present date. Also one might say - very convincingly - it is impossible to establish land use and facility plans 20 years into the future because of ever present uncertainties. A mapped physical plan of land use and facilities for a period of 20 years plus or minus has its limitations. One way to handle these limitations is to concentrate plan making on establishing meaningful objectives and policies - to in effect make a policies plan. This report combines both approaches. There is a land use plan map and there is a heavy emphasis on establishing policies which can guide township decision making over a period of at least five years into the future, especially in the areas of growth and development.

POPULATION FORECAST

It is always difficult to forecast future population. One way of doing this is by extrapolating past trends. This method, however, may not take into account future variables which may occur. Even though some factors can be foreseen that will affect the population growth, it is difficult to predict the actual amount of population that will result. The proposal of U. S. Steel to locate a fully-integrated steel mill near Conneaut, Ohio, and the possibility of other new industry locating in or near the township are hard to translate into population increases for Spring Township. This section of the report will begin by projecting past population trends to the year 2000 using three methods: arithmetic extrapolation, linear regression, and the proration of projections made in the Crawford County Comprehensive Plan.

Arithmetic Extrapolation

In this method the percent of past growth or decline is projected into the future to estimate population. Three versions of this method were run for Spring Township. In the first the percentage growth rate from 1970 to 1975 (8.9 percent) was projected to the year 2000. In the second the percentage growth rate from 1940 to 1975 (17.3 percent) was projected to the year 2000. In the third version the percentage growth rate from 1940 to 1970 (loss of .7 percent) was projected to the year 2000. These three projections were then averaged together. Table 19 shows the results.

TABLE 19

POPULATION FORECAST - ARITHMETIC EXTRAPOLATION SPRING TOWNSHIP								
TIME PERIOD	1940	1950	1960	1970	1975	1980	1990	2000
1970 - 1975 (8.9%/5 yrs.)	--	--	--	1287	1402	1527	1811	2147
1940 - 1975 (4.9%/decade)	1296	1362	1325	1287	1402	1436	1507	1581
1940-1970 (-.24%/decade)	1296	1362	1325	1287	1285	1283	1280	1277
Average	1296	1362	1325	1287	1363	1415	1533	1668

Source: Crawford County Planning Commission staff calculations.

Linear Regression

This method represents another way of projecting past trends into the future. It is best explained by saying that a series of past population figures are plotted over a period of time and then a "best fit" straight line is drawn equidistant through these plottings and projected on into the future. The process is done mathematically, but it can be plotted on graph paper if one desires. By using population figures from the U. S. Census for the years 1960, 1970 and 1975 the projections for Spring Township population were calculated as follows: 1980 - 1383 persons, 1990 - 1421 persons, 2000 - 1460 persons.³ Because of the characteristic of this technique the projection for 1980 was actually below the figure estimated for the Township in 1975. The U. S. Census estimate for 1975 was 1402 persons.

Proration of County Comprehensive Plan Forecast

The Crawford County Comprehensive Plan included a very careful projection of county-wide population to the year 2000. This forecast was done through the use of the Cohort Survival Technique. In handling the proration method Spring Township's percent of the county-wide population was averaged for the last four decades. This average computed to 1.71 percent. This percent was applied to the county plan's projections with the following results:

	County plan projection	Spring Township share
1980	86 670	1 482
1990	93 975	1 607
2000	100 690	1 722

TABLE 20

SUMMARY POPULATION FORECASTS BASED ON PAST TRENDS SPRING TOWNSHIP			
YEAR	Projected Number PERSONS	Increase Over 1970	Increase Over 1975
1970	--	--	--
1980	1430	143	28
1990	1520	233	118
2000	1620	333	268

Notes: The number of persons for 1975 was obtained from Bureau of Census "Current Population Reports, Population Estimates and Projections" (Series P-25 No. 686)

Projected number figures are rounded.

Source: Crawford County Planning Commission staff calculations.

Summary Projection Based on Past Trends

Table 20, on the preceding page, shows the results obtained from averaging the trend projections just discussed. These projections can be considered reasonably accurate based on the assumption "natural" conditions prevail; they do not include U. S. Steel related population impacts or any other such significant event.

U. S. Steel Related Growth

The Northwest Pennsylvania Future's Committee staff has developed a projected population expected to reside in Pennsylvania, which is estimated to be 20,000 people by the year 1990. For purposes of planning, the secondary growth expected to be spawned by U. S. Steel is set at 40,000 people, and the split between Pennsylvania and Ohio is assumed to be fifty percent in each state. The Future's Committee staff's work is based on empirical data obtained through a number of attitude surveys. A distribution formula, so to speak, was set up based on the relative attractiveness of the various cities, boroughs and townships in the defined impact area. Factors; such as, closeness to work, closeness to recreation, closeness to hospital services were important things considered in the formula. Without figuring in constraints which operate on municipal facilities and services, i.e. difficulty in obtaining sewer and water service; inadequate fire protection sources; etc., Spring Township would pick up 206 persons through U. S. Steel impact by 1990.

The combined projections from the base year 1970, including the past trends plus U. S. Steel related figures, yields a total projection to 1990 of 439 persons, say 440 persons. Figuring 3.5 persons per household, this translates to 125 households. The U. S. Steel impact population figure of 206 persons by 1990 should be considered as low simply because other municipalities in the impact area will not be able to handle, due to facility and land constraints, the full amount of persons expected to be attracted into their communities based on the distribution formula. In such cases these persons will go to other municipalities, including Spring Township. One can say that no constraints are operative in Spring Township because: (1) without any expansions, the existing sewerage system can handle thirty-five additional households (E.D.U.'s); (2) with modest expansion costs at the treatment plant site 465 households (E.D.U.'s) can be handled by this system, and (3) the rural development areas of the Township alone, if developed on the basis of 10 acre lots, could accommodate 110 households. (4) This assumes no further settlement in the agricultural area of the Township.

ISSUES

OBJECTIVES

POLICIES

PROJECTS AND PROGRAMS

A plan for the growth and development of the Township translates to one important word "direction". This section of this comprehensive plan is the key to all of the work appearing heretofore. The following narrative in the truest sense is the township plan. In the objectives and policies spelled out here the township should find its compass. Projects and programs are listed here also in order to show how the general directions translate to specific action.

ISSUE - GROWTH

Objective To expect and accept growth and development in the Township and to manage such growth through public policies and programs with a view toward preserving, to the fullest extent possible, rural character throughout most of the Township.

The Township sees new growth as inevitable and it sees active full time farming almost gone by the year 2000. Yet it believes it is important to preserve the rural character of the Township by directing the majority of the growth to the Conneaut Valley in the Conneautville-Springboro corridor which will be a community development area. The community development area will be discussed more completely in an ensuing policy statement; it should be developed with relatively high density residential uses and accommodate concentrations of institutional, industrial and commercial uses. The remainder of the Township, even though it may not retain strong, productive agricultural production, should maintain its rural character.

ISSUE - THE USE OF LAND

Objective To locate future development in suitable areas of the Township as indicated on the Spring Township Land Use Plan which is incorporated into this report. This plan designates areas for agricultural, rural development, community development (including residential, institutional, commercial and industrial uses) and flood hazard areas.

The comprehensive plan includes a land use plan which designates desired uses of Township lands. This plan is based on resident preferences, analyses of the existing uses of land and of land

and public facility constraints, and on identified future needs. The designated uses are purposely general in nature but serve to indicate a grouping of uses according to major activity category so that conflicts between very different activities can be reduced or eliminated and so that the public sector can serve the private sector more efficiently. A separation of some land uses from others can serve to protect property values and to create more efficient, attractive settlements. Because of the advances in technology in the past 100 years buildings for commercial, industrial and residential uses are very different in nature and often, but not always, it is beneficial to group related uses.

The population forecast to the year 1990 which includes expected impacts from the proposed U. S. Steel plant and which was explained in a previous section of this report predicts the Township will gain at a minimum 440 persons. At 3.5 persons per household this would mean the Township should be able to accommodate 125 households by 1990. The sewage system in the Conneaut Valley section of Spring Township has a capacity to serve 150 households, or, expressed in the sewer authority's language, equivalent dwelling units (EDU's). The total capacity of the entire sewerage system is 448 EDU's and it is assumed one third of this amount (150) is available to serve Spring Township in the community development area as shown on the land use plan. In the rural development area of the Township plan it is possible, without the addition of any new roads, to subdivide approximately 110 new lots each a minimum of 10 acres. Therefore in the community development and rural development areas of the Township 260 new households, can be sited. In terms of land and sewage facility constraints the Township can more than handle projected 1990 population.

L. U. Plan
to
Pop. Forecast
Development
Capacity (Pop.)

Policy

In the Township plan's agricultural use area to encourage existing agricultural activities to remain functioning, to promote the expansion of agriculture where possible and to discourage uses harmful to the continuation of agriculture from locating in its midst. Parcels of land in this area should be as large as possible, and public sewage facilities should not be extended into this area.

Agriculture historically has been the most important industry in the Township and has been the predominant user of land. Fifty-two percent of the land area in the Township is in agricultural use either as cropland or as pasturage. The relative importance of agriculture in the Township's economy has declined in recent decades. Only 13 percent of the employed work force was engaged in agriculture in 1969. This figure probably has declined even more in the past decade. Yet the agricultural industry still exists in the Township and establishes its dominant character and attractiveness.

Policy

(2)

To encourage low density rural development, primarily residential, on lands that generally are not used for active, productive agriculture and where the potential for neither active agriculture or community development uses - normally sited in close-together, higher density patterns - exists. Lot sizes in these areas should range from 2 to 10 acres or greater.

Land throughout most of the Township is a constraining factor to development unless it is improved with sewer and water facilities. Ninety-one percent of the land in Spring Township, based on soil characteristics, is rated as unsuitable for on-lot sewage systems. Most drilled wells in the Township must be completed in the Devonian Shales and consequently yield only 1 to 5 gallons per minute; furthermore, great care must be exercised in drilling otherwise salt water infiltration shall occur. All of the water obtained from wells in the Devonian Shales is "hard" water. The Pennsylvania Department of Environmental Resources (PennDER) does not require on-lot sewage permits on properties 10 acres or greater in area, and Spring Township as well as most other municipalities observe this same rule also. A municipality may, however, require on-lot sewage permits issued in conformance to state standards for properties 10 acres or greater; a regulations of this type very likely would have the effect of discouraging development in rural, non-sewered areas. As mentioned previously, the area and existing development patterns in the rural development area are such that a minimum of 110, ten acre lots can be accommodated in this area.

Policy

M/A (3)
idea is good

To encourage the formation of community developments in areas of the Township where public sewerage is or can easily become available, and where ground water supplies are generally plentiful. Such

community developments may include: resi-
dential, commercial, institutional and
industrial activities which normally locate
close together forming neighborhoods and
communities in order to meet the demands of
an industrial economy. They should not be so
large as to make sewage services inefficient.
Sizes in the range of 15,000 to 20,000 square
feet are reasonable lot sizes, and they may be
smaller depending on the nature of the develop-
ment.

Soil conditions in Spring Township are such that uses cannot locate relatively close to one another forming neighborhoods and communities if sewage treatment facilities must be placed independently on each lot. A public system for sewage treatment is necessary for community development densities. In the Conneaut Creek Valley section of Spring Township between Springboro and Conneautville Boroughs and north of Springboro to Shadeland a public sewerage system is available. Also in this area of the Township there are more plentiful supplies of water lodged in so-called "outwash" deposits containing sorted gravels and sands. The existing land use map of the Township demonstrates that it is in the Conneaut Valley section of the Township that many of the institutional and commercial uses serving the Township and adjacent municipalities have located.

As mentioned previously assuming one-third of the excess capacity of the Northwest Crawford Sewer Authority is assigned to Spring Township, 150 equivalent dwelling units can be sewerred in the community development area of the Township. Collection lines must be installed to serve newly developed areas, and it would be most economical if the new development in this area "fanned out" from the interceptor sewer which is located generally along the Bessemer Railroad right-of-way. The sewer system in terms of the size of the conduction lines has considerable excess capacity. 3,130 equivalent dwelling units can be accommodated by the whole system based on the assumption that 70 gallons per day per person is the loading on the system. To accommodate over 1,250 EDU's, however, the treatment plant capacity must be enlarged. (5)

Policy



To manage the use of lands subject to the hazards of flooding in a way that buildings are not constructed which may be damaged due to flooding conditions.

The State through its Flood Management Act of 1978 and the Federal Government in a more limited manner have mandated Spring Township to control building activities in areas designated as flood hazard zones. The Federal Insurance Agency has mapped the areas of the Township it believes are subject to flooding conditions. The soil survey completed by the Soil Conservation Service has identified soils deposited through floods over the past centuries. This information is the basis for identifying flood hazard areas in this plan. The Township has established a modest regulatory program for flood hazard areas.

Program

To conduct discussions culminating in public hearings on the question of the use of growth management regulations and to undertake the drafting of such regulations only after a suitable expression of public support for such a step. The regulations, if drafted, would in turn be subject to public hearings before any official public action is taken. The planning commission shall conduct such discussions and work with the Township supervisors in arranging for public hearings.

The land use plan shall serve as a guide to private individuals as to how land in the Township is used. Persons building in the Township should be guided by this plan. The Township supervisors should be guided in their roads' management practices and in other ways by this plan. To implement the plan in a more thorough way regulations on the private use of land would have to be adopted.

Program

To insure reasonable regulation of land subdivision and development by adopting and administering a subdivision and land development ordinance structured in such a way that county planning commission staff provides administrative aid but final subdivision approval actions rest in the Township.

Newly subdivided parcels of land should not create future problems because of their configuration. Lots that are excessively long compared to their width, so-called "bowling alley" lots, create excessive amounts of unusable land and are difficult to consolidate for future development. The practice of subdividing these lots has occurred where the purpose has been to attain a 10 acre area in order to avoid compliance with on-lot sewage system standards. Lots generally shall be no more than $2\frac{1}{2}$ to $3\frac{1}{2}$ times longer than they are wide.

ISSUE - ROAD NETWORK

Objective To maintain existing roads and to inspect and accept new roads through a process that insures these roads are safe, attractive and efficient and to manage the road system to achieve, insofar as it is possible, the aims of the land use plan.

The Township's most important public facility system is its road network. Sixty percent of the Township budget in the years 1973-1977 was spent on its roads. There are 59 miles of Township roads. The road is the key to future development since new buildings, no matter of what type they are, need road access. Ninety percent of the Township roads are of gravel construction. Whether roads are maintained with gravel or bituminous surfacing will be an important consideration in the amount and location of new development.

Policy The Federal Functional Classification System shall be accepted as the appropriate system for the classification of roads in the Township. The following designations represent the Township's position on the classification of its road network:

Minor Arterials

State Route 18

Major Collectors

State Route 198 west from Conneautville

L.R. 20052, Springboro to Cussewago
Township Line (Hickernell
Road)

Minor Collectors

L.R. 20041, Beaver Road

L.R. 20122, Fisher Road

L.R. 20051, Cussewago Line to Pont
(Erie County) Road

L.R. 20047 Road on Cussewago Township
boundary

Collectors (called Locals in the Functional System)

L.R. 20050, Thatcher Road

L.R. 20049, Rundelltown Road

L.R. 20036, Crossingville to Pont Road

All Township roads except Warner Road
and Wensel Road

Local Access

T. 891 Warner Road

T. 779 Wensel Road

Key to understanding and managing roads is a recognition of the fact that overall road network is of great importance. All roads in this network need not, nor cannot, be built to the same specifications. The network concept is based on the fact that there is a hierarchy of roads; some roads serve interstate and inter-county needs; others serve intertownship travel, and still others function only to provide access to abutting lands. Often times the same road serves all functions in which case problems of congestion are certain to arise.

The Federal Functional Classification System defines the hierarchy of roads in the following way:

- Minor Arterial. A road which serves interstate and intercounty travel, and where trips are normally of long duration.
- Major Collector. A road serving intercounty and intracounty travel and which connects development centers within a county.
- Minor Collector. A road which collects traffic from the local road system and funnels it to the major collector and minor arterial systems.

The three categories described above include roads which have reasonable continuity. The following two categories demonstrate a difference in the continuity characteristic, especially the local access road.

Local (Collector). This category of road is named local in the Federal System and it includes all Township maintained roads. However, from the perspective of local people most Township roads have continuity throughout the municipality and serve many acres of land. Other roads could easily be built "out from" the so-called Township roads serving newly formed subdivisions. If this were to happen it would be easy to demonstrate that the so-called local roads are collector roads. Consequently in this plan the normal Township road is called a collector if it has reasonable continuity.

Local Access. This is the true local road, a road which would never - even with full development on it and around it - carry appreciable through traffic and which primarily serves as access for abutting property owners.

Besides providing a convenient way to organize one's thinking on the Township road network, the Federal Functional Classification System has another important characteristic. It denotes the amount of financial help the federal government will supply to a particular road category. To a lesser extent it also is a key to relative road importance and to major improvement priorities. Minor arterial and major collector roads qualify for the substantial federal aid programs. Minor collector and local (collector) roads do not participate in the conventional federal aid programs. They do, however, qualify for the Federal Off-Systems Aid Program.

Policy

The travel way width of roads and their surface characteristics shall be based on classification category. The following travel way widths and surface materials shall be standard for the Township:

<u>CATEGORY</u>	<u>TRAVEL WAY WIDTH</u>	<u>SURFACING</u>
Minor Arterials	22-24 feet	Paved
Major Collectors	22-24 feet	Paved
Minor Collectors	20 feet	Paved
Collectors	20 feet	Paved/Graveled
Local Access	18 feet	Paved/Graveled

The surfacing policy for collector and local access roads would depend upon present surfacing conditions and location in the Township. This policy amounts to setting road standards for the Township. Federal road classifications are such that no federal money can be given to a local project except that the travel way width be brought up to 20 feet. Beyond the standards expressed here it is important for the Township to develop a more elaborate set of road standards and specifications so new roads built through the subdivision process are completed to acceptable standards.

Project

The Township shall communicate its road classifications policy to PennDOT and shall work with the State to change the official designations bringing them into harmony with Township policy.

The State should be made aware that the Township intends to use the road system within its boundaries to help manage growth. Road classifications on the Functional System emanate from the federal government and it will take a relatively long time to effect changes.

Project

The Township shall communicate its roads management and classification policies to the Township supervisors in Conneaut and Elk Creek Townships, Erie County and adjacent municipalities in Crawford County, urging them to consider carrying forth road management and classification policies in harmony with their own.

State road L.R. 20036 in the Township is proposed to be reclassified to a local road, and Elk Creek Township should be made aware of this proposal. L.R. 25079 which is classified as a minor collector in Conneaut Township, Erie County, would serve Spring Township growth management objectives better if it were reclassified to a local road; hopefully the Conneaut Township, (Erie County) Supervisors can accept this reclassification.

When road classification changes are proposed which affect adjacent municipalities in Crawford County these changes should be explained to the elected officials in these municipalities urging their cooperation. The following policy dealing with the paving of gravel roads should be explained to adjacent municipalities in Crawford and Erie Counties so that they are aware of the Township's intention to provide paved roads assuming sufficient growth occurs in Spring Township and assuming there are adequate funds for this paving program.

Policy

In agricultural, rural and community development areas where roads are presently graveled these roads shall be maintained as gravel roads until the density of development reaches an average of one use activity for each 400 feet of road frontage per mile, at which point the Township, as it has funds available, shall program the paving of such roads. All new roads built through the land subdivision process in community development areas, and new roads built in the agricultural and rural development areas where the adjacent development is expected to have a density of a minimum of one activity per 400 feet of road frontage shall be constructed with paved surfaces.

Although it is most important to insure that the developing sections of the community development area have paved roads, as building activity occurs throughout the Township at greater densities than one use or activity per 400 feet of road frontage per mile, the affected roads should also be paved as funds are available.

Policy

All state roads classified in the collector category should be returned to the Township for maintenance providing the state contributes a fair share of the upkeep money for these roads and the roads are in acceptable condition at the transfer time.

PennDOT is promoting a policy of turning roads classified as locals back to municipalities for all future maintenance. When one considers that the State has a larger road system under its jurisdiction than all of the New England states plus New York and New Jersey combined, the State's policy is really a matter of self preservation. As the Township considers its actions in this matter some way must be found to handle bridge maintenance, a responsibility which is difficult for local municipalities because of the more technical and costly nature of these structures.

Policy

To maintain, where it exists, and to promote to the extent possible on new roads, tree plantations at or near the road right-of-way lines.

A characteristic of many roads in the Township are the strong lines of shade tree plantings. These trees give the road a sense of its own space and present an attractive appearance in the rural landscape. This situation is especially characteristic along Route 18 from Springboro to the Erie County line. The promotion of this treatment for public road spaces throughout the Township would give Spring Township an "unbeatable" image.

Policy

To maintain close coordination with the Board of County Commissioners and the Crawford County Planning Commission in connection with the determination of PennDOT's Twelve Year Highway Improvements Program.

Major reconstruction and new construction projects must be listed on the State Twelve Year Highway Program in order to be funded. These are projects which normally require detailed engineering plans and the purchase of right-of-way. PennDOT utilizes county planning commissions to coordinate and obtain local comment on what projects should be in this program. The Crawford County Planning Commission in turn has organized a Highway Advisory Committee which is a forum for expressing local municipal needs in connection with this program. The Board of Township Supervisors is a member of

this Advisory Committee. The Board should make sure that the County Planning Commission has a listing of all major highway improvements for state maintained roads which the Township believes should be scheduled for construction over the next 12 years.

Project

The following project should be listed on the County's Twelve Year Highway Program. The reconstruction of State Route #18 from Conneautville to the Erie County line including (1) the elimination of "Campground Curve" through a realignment improvement, (2) the elimination of "Spisak Curve", and (3) the widening of the roadway, within the existing right-of-way, to 22 feet of travel way, handling this work in such a way as to preserve to the fullest extent possible the existing tree plantings at the right-of-way.

Relatively detailed plans for these improvements have been developed through this planning process and they have been transmitted to PennDOT's District 1-0 office. The proposal to eliminate Campground Curve involves the construction of approximately 5,500 feet of new roadway west of the present Route 18 alignment north of the Curve. This new alignment would open new lands for development, take through traffic away from two public school sites, and offer the public the opportunity to control the access cuts into the new roadway. Also there is an existing vertical curve on Route 18 at the Fisher Road (L.R. 20122) intersection which should be eliminated through this improvement.

Policy

To maintain close coordination with the Board of County Commissioners, the Crawford County Planning Commission and PennDOT in connection with the listing of qualifying projects for funding under the Federal Off-Systems Road Program.

The Off-Systems Road Program has the ability to deliver federal dollars for the improvement of Township roads. Qualifying projects should be listed with the County and with PennDOT. These projects should be prioritized by the Township. Currently PennDOT is improving over one mile of Fisher Road under this program.

Project

The following project shall be the Township's first priority under the Off-Systems Program: The reconstruction of the state bridge over Rundelltown Creek on L.R. 20051 northeast of Rundell.

This bridge is used heavily by travelers going through the Township to destinations in Erie County and in central Crawford County. It is used especially by truckers. Yet this bridge is in extremely bad condition. Its condition is so bad that many vehicles use the Township's King Road, a gravel road, which has a bridge structure that is not designed for heavy traffic. The station designation for this bridge is 1+8.

Projects

The following two projects on the state road system also shall be handled under the Off-Systems Program: the removal of the old Penn-Central overpass on Shadeland Road and the reconstruction of the bridge over Conneaut Creek on Shadeland Road.

A bridge survey conducted by PennDOT engineers in the summer of 1978 evaluated the two bridge structures listed above as in poor condition and in need of attention. Shadeland Road is a collector (local) road and improvements to this road must be funded either from state or Federal Off-Systems Program monies.

Policy

To promote safer road crossings where Township roads intersect the Bessemer and Lake Erie Railroad.

Project

To initiate discussions with officials of the Bessemer Railroad in order to provide adequate signalization for at grade railroad crossings in the community development area of the Township, specifically at (1) L.R. 20142, Shadeland Road, (2) T. 388, Creek Road, and (3) T. 803, Watson Road.

Ideally these crossings, since they are located in the community development area of the Township, should be grade separated. With the advent of the U.S. Steel Corporations plant the community development area of Spring Township is expected to grow considerably. By the year 2000 serious attention should be given to the need for grade separations on these roads at the track crossings. In the short range adequate signalization should be feasible. Fisher Road is expected to have signals installed in the near future.

ISSUE - COMMUNITY FACILITIES AND SERVICES

Objective To support, assemble and/or maintain community facilities and services which will provide for the needs of the present and future residents.

In the preceding section of the plan the road network was discussed. This is the chief facility and service which the Township provides its residents. Spring Township does not provide a wide range of facilities and services for its citizens compared to what more urban governments provide. This is the typical situation with respect to rural townships in Crawford County. An important question facing the Township is, Where is the threshold at which the Township should consider getting into additional programs? This question is not easy to answer. It will be explored somewhat in the following narrative. As the population of the Township increases the needs of the residents should be monitored and adventures into new facility and service systems evaluated.

Policy To continue financial support for the volunteer fire companies, in Conneautville and Springboro, in order to obtain fire protection for Township residents.

Both fire companies now receive financial aid from the Township. This practice should continue. This aid promotes intermunicipal cooperation and strengthens existing service organizations. Sixty percent of the allocation goes to Springboro and forty percent to Conneautville. Although the eastern sections of the Township are some distance from the two boroughs, reality dictates that the existing arrangement is the best that can be managed now. In the foreseeable future it seems more logical to work to strengthen the existing fire companies rather than to organize any new service.

Policy To consider initiating an annual payment to the existing public libraries in Conneautville and Springboro so they can strengthen their services to residents in Spring Township, requesting in so doing that these libraries investigate the establishment of some more direct method of service to Spring Township residents.

The Conneautville and Springboro libraries participate in the County Library System which obligates them to serve the residents of Spring Township whether or not the Township contributes

to their operation. The County library system is new and it seeks to convince all municipalities in the County to also contribute to nearby existing libraries. The two libraries serving the Conneaut Valley should examine the possibility of initiating a reading station in Spring Township and other methods that could improve service to Township residents. Yet in requesting this extension of service on the part of the two borough libraries the Township is aware that both libraries are operating in inadequate facilities. The first priority of these two libraries should be to use the funding they can acquire to strengthen their basic facilities so these facilities can better serve the Conneaut Valley area.

Policy

To investigate whether there are any unmet needs in the area of recreation programming for Township residents.

The Township provides no direct services to its residents in the area of recreation. Many residents use the facilities and programs available in Springboro and Conneautville. The scope of study in this plan has not permitted time to investigate recreation needs.

Project

A survey should be undertaken of resident needs and attitudes in connection with recreation programs in order to see if the Township itself should consider providing some form of recreation service or contribute funds to existing programs in Springboro and Conneautville.

The Township supervisors should appoint a special committee to conduct this survey. A written report should be developed and transmitted to the supervisors.

Policy

To continue to depend on the State Police to handle policing services in the Township.

Currently there is no clearly felt need for improved police service in the Township. The State Police patrol Township roads and provide reasonable coverage for local needs. However, this situation may change with the initiation of construction by the U. S. Steel Corporation. Additional police service, if indeed it is needed someday, can best be solved through intermunicipal cooperation.

Policy

To encourage new development to be built in areas of the Township served by the Northwest Crawford County Sewer Authority so that this development can obtain adequate sewage service and so that the sewerage system can benefit from an increased number of users.

The area in Spring Township between Conneautville and Springboro, now that there is a potential for sewage system hook-ups here, should be considered as one of the favored areas for new growth in the Conneaut Valley. This is also true of the area north of Springboro to Shadeland.

Project

To request the Northwest Crawford County Sewer Authority to adopt policies and plans for the extension of its sewage system in Spring Township so that such extensions may assist in implementing the Spring Township plan.

This plan once it is adopted by the Township as its official guide for development should be transmitted to the sewer authority. In terms of managing growth in the Township, the handling of collection line extensions to the sewer system is a vitally important factor. Through plans and actual line construction, items of action the authority can undertake, responsible growth can be expedited.

Policy

To participate in the initiation of discussions with Conneautville and Springboro Boroughs on the organization of a joint water supply system which can extend public water service into the area now served by the Northwest Crawford County Authority in the Township.

Water supply in the Township is generally not good. However, in the Conneaut Valley area there are glacial outwash deposits which can provide sufficient water for considerable growth. Industrial uses in particular, should they be sought to strengthen the Township's tax base, normally need large amounts of water. This water can be delivered more economically and in the quantity and quality needed if one system serving the entire "Valley" is organized. However, it should be recognized that the boroughs cannot be expected to participate in such a common system if they lost development which should normally occur within their boundaries. The vitality of the whole Conneaut Valley could be strengthened by an intermunicipal water system.

Policy

Future elementary, junior high and senior high school needs should continue to be met on the public school sites in the Township adjacent to State Route 18.

The Township is fortunate in having a complete array of public school facilities within its boundaries. Currently school population is declining in the Conneaut Valley attendance district which is the area served by the schools in Spring Township. However, the advent of the U. S. Steel plant is expected to change this trend. The Conneaut Valley Elementary School and the Conneaut Valley High School sites both are large and can accommodate expanded facilities.

Policy

To continue to provide a measure of financial support for the Conneaut Valley Medical Center.

One of the deficient areas in Spring Township and in the Conneaut Valley area in general is the lack of 24 hour medical service close at hand. The medical center in Conneautville has provided a needed service, but its history has been plagued for a lack of adequate financial support, and it does not operate 24 hours a day. Alternatives to the Conneaut Valley Medical Center involve trips to either Meadville, Conneaut, Greenville or Erie City.

Policy & Project

The existing Township Building should continue to be used as the center for municipal management and governance activities; some improvements, however, should be made to main floor space arrangements in order to better accommodate the attendance of citizens at public meetings, to provide office space for the Township Secretary and to provide storage space for Planning Commission materials.

The Township Building provides meeting room space, a location for citizens of the Township to vote, and, on the ground floor, an equipment storage area. Other buildings on the grounds are given over to uses associated with the roads' maintenance responsibilities of the Township. The main floor space is adequate for Township management functions and for normal public meetings, but it does need to be reorganized and refurbished to some degree. For occasional public meetings where a large attendance is expected other buildings (for example the nearby grange building) could be use on an ad hoc basis.

Policy

To support responsible efforts by higher levels of government to improve solid waste disposal services and to insure that such services will be available at reasonable cost in future years.

Recent regulations enforced by PennDER have caused all of the sanitary landfills to be closed in Crawford County. None of these landfill sites were large enough or operated on a large enough scale to meet stiffer environmental standards. Solid waste in Crawford County is hauled to adjacent counties for disposal. The future of reasonably priced disposal services is questionable. There is no one municipality in the County large enough to be able to afford to open a new landfill and other methods of disposal appear too costly.

Project

The Board of Township Supervisors should pass a resolution requesting, (1) the Board of County Commissioners to take a leadership role in proposing a satisfactory solution to solid waste disposal problems, and, (2) the County's Solid Waste Management Plan be revised and in so doing local municipalities be involved in the revision process.

ISSUE - HOUSING

Objective

To assume a role in assisting the construction of new housing for all age groups in the Township and in channeling into the Township federal funds for housing loans and grants for new housing and rehabilitation of existing housing.

More and more the construction of new housing for persons of average income is becoming impossible without some form of federal or state subsidies. Programs are available for securing these subsidies but most of the programs require, in the case of rural townships, that an administrative structure be lodged at the County level. No detailed housing survey was completed in this planning study. However, from cursory observations two facts are fairly clear about the housing situation, (1) there is an extremely low vacancy rate for rental or sale dwellings and (2) many houses are relatively old and in need of rehabilitation work if the existing housing stock is to be retained in a creditable state.

Policy

To provide financial support for the Conneaut Valley Housing and Site Development, Inc., a non-profit organization aiming to get new housing construction into the Conneaut Valley.

This Corporation was formed in 1979 in order to make use of federal loan subsidy programs for new housing construction. The leadership of this Corporation comes from the Conneaut Valley area. New housing starts have been generally slow in the Conneaut Valley. There is virtually no rental housing available. The Federal Farmers Home Administration provides a program mechanism for non-profit organizations led by diligent public spirited citizens to get new rental housing under construction.

Policy

To encourage the Board of County Commissioners to reactivate the County Housing Authority in order to channel federal aid into housing rehabilitation loan programs in the Township.

Spring Township is not able to participate directly in housing rehabilitation loan programs. It must work through a county-wide authority in order to make low interest rate rehabilitation loans available to its residents. The County created a housing authority in years past, but currently it has no appointed members and is not functioning.

Project

The Board of Township Supervisors should pass a resolution showing its support for the Crawford County Commissioners to activate the County Housing Authority, enabling this organization to "pass through" loan and grant money for housing rehabilitation.

ISSUE - INDUSTRIAL DEVELOPMENT

Policy

To encourage the Board of County Commissioners to organize some effort at the County level which will be able to acquire sites, make these sites suitable for new industrial development, and promote industrial development in Spring Township.

Industrial development is a competitive field of endeavor. Without continuous and active efforts communities often do not get their fair share of industrial employment. One or even a group of municipalities in a rural county such as Crawford cannot mount a successful effort by themselves.

Project

The Board of Township Supervisors should pass a resolution showing support for the Crawford County Commissioners to oversee an industrial development program which would work throughout the County identifying and developing sites for new industry and for local industrial expansions, and promoting the County as a desirable place to locate industrial plants.

PROJECTS AND PROGRAMS SUMMARIZED AND PRIORITIZED

So that the Township can be aware in a clear way of the "calls for action" which this plan is recommending the following listing of projects and programs has been assembled from the preceding section. The ranking in this listing is the priority.

1. To conduct discussions culminating in public hearings on the question of the use of growth management regulations and to undertake the drafting of such regulations only after a suitable expression of public support for such a step. The regulations, if drafted, would in turn be subject to public hearings before any official public action is taken. The planning commission shall conduct such discussions and work with the Township Supervisors in arranging for public hearings.
2. The existing Township Building should continue to be used as the center for municipal management and governance activities; some improvements, however, should be made to main floor space arrangements in order to better accommodate the attendance of citizens at public meetings, to provide office space for the Township Secretary and to provide storage space for Planning Commission materials.
3. The following project shall be the Township's first priority under the Off-Systems Program: The reconstruction of the state bridge over Rundelltown Creek on L.R. 20051 northeast of Rundell. This choice shall be communicated to the Board of County Commissioners, the County Planning Commission and PennDOT.
4. The following two projects on the state road system also shall be handled under the Off-Systems Program: The removal of the old Penn-Central overpass on Shadeland Road and the reconstruction of bridge over Conneaut Creek on Shadeland Road. These choices shall be communicated to the Board of County Commissioners, the County Planning Commission and PennDOT.
5. The following project should be listed on the County's Twelve Year Highway Program. The reconstruction of State Route #18 from Conneautville to the Erie County line including (1) the elimination of "Campground Curve" through a realignment improvement, (2) the elimination of "Spisak Curve", and (3) the widening of the roadway, within

the existing right-of-way, to 22 feet of travel way, handling this work in such a way as to preserve to the fullest extent possible the existing tree plantings at the right-of-way. Also there is an existing vertical curve on Route 18 at the Fisher Road (L.R. 20122) intersection which should be eliminated through this improvement. This project preference should be communicated to the Crawford County Planning Commission.

6. The Township shall communicate its road classifications policy to PennDOT and shall work with the State to change the official designations bringing them into harmony with Township policy.
7. The Township shall communicate its roads' management and classification policies to the Township Supervisors in Conneaut and Elk Creek Townships, Erie County and adjacent municipalities in Crawford County, urging them to consider carrying forth road management and classification policies in harmony with their own.
8. To formally request the Northwest Crawford County Sewer Authority to adopt policies and plans for the extension of its sewage system in Spring Township so that such extensions may assist in implementing the Spring Township plan.
9. To initiate discussions with officials of the Bessemer Railroad in order to provide adequate signalization for at-grade railroad crossings in the community development area of the Township, specifically at (1) L.R. 20142, Shadeland Road, (2) T. 388, Creek Road, and (3) T. 803, Watson Road.
10. A survey should be undertaken of resident needs and attitudes in connection with recreation programs in order to see if the Township itself should consider providing some form of recreation service or contribute funds to existing programs in Springboro and Conneautville.
11. The Board of Township Supervisors should pass a resolution requesting (1) the Board of County Commissioners to take a leadership role in proposing a satisfactory solution to solid waste disposal problems, and (2) the County's Solid Waste Management Plan be revised and in so doing local municipalities be involved in the revision process.
12. The Board of Township Supervisors should pass a resolution showing its support for the Crawford County Commissioners to activate the County Housing Authority, enabling this organization to "pass through" loan and grant money for housing rehabilitation.
13. The Board of Township Supervisors should pass a resolution showing support for the Crawford County Commissioners to over-see an industrial development program which would work

throughout the County identifying and developing sites for new industry and for local industrial expansions, and promoting the County as a desirable place to locate industrial plants.

14. To insure reasonable regulation of land subdivision and development by adopting and administering a subdivision and land development ordinance structured in such a way that county planning commission staff provides administrative aid but final subdivision approval actions rest in the Township.

THE PLAN AS A CONTINUING PROCESS

This message in this section will be brief. It is to "underscore" something which the writers of this plan hope is already in the reader's mind. The policies which are "pronounced" in this plan report, the land use plan, the proposals made for various community facilities - none of these elements are considered to be "chiseled on stone tablets". The plan, it is true, has taken clear stands on important issues of concern to the Township. It should do this. It should stake out positions on th issues. The plan cannot be all things to all people. If it were all things to all people, it would not be worth reading. But be aware, every private and public action as they occur over the weeks, months and years ahead will introduce new realities into township life. Peoples' attitudes change and this could change the plan's objectives and policies. The plan should be considered open to change, and to be meaningful to the Township it must change in some regards. This plan is a guide for community growth and development, but a flexible guide. Plan changes as they are introduced in the future hopefully will be well thought out, and ~~not willy-nilly.~~

The main reason this plan is bound in a loose leaf notebook is to put it in a physical format so that it can change conveniently with the passage of time. New and more detailed background information can be added. Revised policies and additional policies should be considered and likely worked into this document. Appendix 4 provides a page on which plan revisions can be recorded.

Many persons who work in the community planning field full time will say that more than anything else "planning is a process", that the day after any plan is adopted it begins to become out of date because new events are always occurring especially through the individual development decisions of the citizenry. These planners say that the orderly problem solving process which was used to create the plan, the coming together of township people to thrash out issues and make decisions, that this process is the most meaningful thing. The writers of this report are unwilling to stretch the concept of flexibility this far. In this plan report it is felt that there are objectives and policies which will be true and good for the Township for years ahead. But this extreme position on plans and planning is meaningful because it emphasizes that this plan is evolutionary and can change and should change in some respects over the years ahead.

Good community planning is a continuing activity; it is not a "once done then over" situation. The Township Planning Commission, the Supervisors and Spring Township citizens are urged to use this document ^{well} ~~hard~~, to mold and shape it so that it is always important and useful in Township affairs. The Planning Commission has the key role and responsibility in keeping the Plan "alive", and they should undertake a major reassessment of this document and the Land Use Plan map at least once every five years.

they have accepted ^{this} land plan

to follow through on the following program:

Program:

The Planning Commission should re-evaluate and update the comprehensive plan a minimum of every ~~five~~ ^{five} years.

APPENDICES

APPENDIX 1

Municipal Expenditures 1973-1977
Spring Township

EXPENDITURES	1973		1974		1975		1976		1977		5 Year Average
	\$	%	\$	%	\$	%	\$	%	\$	%	
Administration	6,130	6.2	8,134	5.7	7,466	7.4	38,746	29.9	13,903	11.2	12.1
Tax Collection	1,687	1.7	1,989	1.4	2,130	2.1	2,110	1.6	2,419	1.9	1.7
Mun. Buildings	9,728	9.8	1,073	.8	4,295	4.3	877	.7	2,126	1.7	3.5
Fire	1,111	1.1	2,071	1.5	3,585	3.6	1,809	1.4	2,818	2.3	2.0
Health & San.	37	-	336	.2	-	-	50	-	250	0.2	.1
Roads	63,410	63.9	102,213	71.6	58,866	58.7	56,902	43.9	77,352	62.2	60.1
Interest	1,591	1.6	2,189	1.5	2,460	2.5	791	.6	2,100	1.7	1.6
Miscellaneous	4,744	4.8	5,788	4.1	5,673	5.7	6,235	4.8	7,684	6.2	5.1
Total Government	88,438	89.1	123,793	86.7	84,475	84.2	107,520	83.0	108,652	87.4	86.1
Total Non-Gov.	10,800	10.9	19,000	13.3	15,800	15.8	22,100	17.0	15,620	12.6	13.9
Total Exp.	99,238	-	142,793	-	100,275	-	129,620	-	124,272	-	-

APPENDIX 2

SUPPORTING MATERIAL

This appendix contains a listing of narrative and mapped studies developed as background to the plan which could not be entirely included in this document. However, this important supporting information is on file either with the Spring Township Officials or in the offices of the Crawford County Planning Commission.

1. Agricultural Quality, Spring Township 1978 (map)
2. Bridge Plan, Spring Township, Crawford County, Pa. April 1978 (map)
3. Development Study and Vicinity of Proposed Alignment of Route 18 in Area of Conneaut Valley Schools, January 1979. (map)
4. Existing Land Use Spring Township, Survey dated Fall 1977. (colored map version)
5. Federal Insurance Administration Flood Hazard Boundary Map, Township of Spring, Pa. (Crawford County) May 31, 1974.
6. Flood Prone Areas, Spring Township, January 1979 (map)
7. Ground-Water Resources, Spring Township (map) Crawford County, Pa., Feb. 1979
8. Identification of Active Farms, Spring Township August 1978 (map)
9. Parcel Size by Section and Average, Spring Township, April 1978 (map)
10. Proposed 10 acre ($\frac{1}{4}$) Parcelization Pattern, Spring Township, May 1979 (map)
11. The Road & Development In Beaver & Spring Townships and Springboro, A Plan Idea, January 1979 (map)
12. Road Information, Dec. 1978, 1st Revision January, 1979, Spring Township (map)
13. Route 18 Alignment Study, November 1978 (map)
14. The Roads Management Idea (Proposed), Road Surface & Classification Policies, Erie County-Crawford County April 1979 (map)
15. Sewer System Plan, Spring Township, Crawford County, Pa. December 1978 (map)

16. Soil Conservation Service Map of Existing and Potential Agricultural Land, Spring Township - 1979
17. Spring Township Property Line Base Map, Crawford County, Pa. April 1978
18. Spring Township Property Line Base Map, showing Ownership and Acreage by Parcel, April 1979
19. Topographic Base Map of Spring Township, December 1978
20. Topographic Map showing Sewer System Plan, Spring Township December 1978
21. Well Log Data for Crawford County, to 1975

APPENDIX 3

ENDNOTES

1. The historical facts in this narrative were compiled from:
Brown, R. C. History of Crawford County. Chicago: Warner, Beers & Co. 1885.
Centennial Edition 1865-1965 Springboro, Pa. 1965
Adamson, Charles F. The Origin of Crawford County.
Meadville, Pa. Crawford County Legal Journal, 1965.
2. For a further explanation of the status of the Penn Central Railroad right-of-way see, "Memorandum, Information on Abandoned Penn Central Rail Right-of-ways" by Chris Chaffee, dated February 6, 1979. This memorandum is available from the Spring Township Supervisors and the Crawford County Planning Commission office.
3. The 1960 and 1970 population figures came from the dicennial census in these years. The 1975 figure was from the Bureau of Census "Current Population Reports, Population Estimates and Projections", Series P-25 No. 686, May 1977.
4. These figures are based on the stated characteristics and the capacity of the Northwest Crawford Sewer Authority system as listed in the utilities subsection of this report. The total capacity of this system was divided by three to obtain Spring Township's share of this capacity.
5. The Northwest Crawford Sewer Authority treatment plant is designed for a capacity of 307,000 gallons per day. Currently there is an excess capacity at the plant of approximately 157,000 gallons per day which translates to 448 EDU's, based on 70 gallons per day per person and 3-5 persons per EDU. One third of this (Spring Township) is approximately 150 EDU's. The main lines into the plant, however, are designed to handle 2.5 times the plant capacity in gallons per day or 767,500 gallons per day.

APPENDIX 4

REVISION PAGE

DATE

REVISION