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City of Crystal Falls Comprehensive Plan

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1.0 OVERVIEW AND BRIEF DESCRIPTION

1.1 Introduction

This Comprehensive Plan represents the culmination of months of discussion and study by the City of Crystal Falls Planning Commission. The plan can be divided into two primary areas; background information, and goals and objectives, which will guide the City's future development.

The first several chapters of the plan contain background information on population trends, the local economy, land use, and community facilities, among other things. Such information is useful in forming a complete picture of the City's growth and development over time, in other words, "where are we now, and how did we get here?" In order to set the stage for future discussions about goals, policies and strategies, each chapter contains a brief summary of issues and opportunities related to each subject area.

The last chapters of the plan are focused on the future of the City of Crystal Falls. These chapters attempt to address the question of "where do we want to go in the future, and how can we achieve those goals?" The last chapters of this plan build on the first ones, and provide a framework for guiding the City's future development.

Section 6 of the Municipal Planning Act, P.A. 285 of 1931 states that a planning commission "shall make and adopt a master plan for the physical development of the municipality, including any areas outside of its boundaries which, in the commission's judgment, bear relation to the planning of the municipality." It also provides authority for the commission to "amend, extend, or add to the plan." Section 7 of the Act states that the plan's general purpose is "guiding and accomplishing a coordinated, adjusted, and harmonious development of the municipality and its environs which will, in accordance with present and future needs, best promote health, safety, morals, order, convenience, prosperity, and

general welfare, as well as efficiency and economy in the process of development; including, among other things, adequate provision for traffic, the promotion of safety from fire and other dangers, adequate provision for light and air, the promotion of the healthful and convenient distribution of population, the promotion of good civic design and arrangement, wise and efficient expenditure of public funds, and the adequate provision of public utilities and other public requirements." Thus, this plan provides guidance for the City's elected officials, boards and commissions, and staff to use when making future decisions. It is a "yardstick" against which proposed projects can be evaluated. This plan serves as the basis for a relationship between elements of all other precepts and relevant efforts pertinent to best practices within this City, and is a reference tool which can also serve to support other planning efforts, such as recreation planning, capital improvements planning, etc.

1.2 Community Description

The City of Crystal Falls was founded in the days of iron mining and timber exploration in Michigan's Upper Peninsula. Located in southeastern Iron County, Crystal Falls occupies hilly terrain both east and west of the Paint River. In the early 1880s, Crystal Falls was one of the primary mining towns in the Upper Peninsula.

Solomon D. Hollister, a native of Sparta, Wisconsin, made his way to the Crystal Falls area in 1880. He came associated with George Runkel (considered the founder of Crystal Falls), born in Germany, who also came to the area in 1880. Together they discovered that there was much ore to be mined, and formed the Crystal Falls Iron Company. In the spring of 1881, Hollister and Runkel were convinced they had discovered a new iron range. Runkel convinced the Chicago Northwestern Railroad to build a line to Crystal Falls, and the railroad was completed in June, 1882. The location for the City of Crystal Falls had been selected due to its location between two mining exploration areas, as well as the availability of land to build the town on. By the time the railroad was completed, there were six active mines in the area, and over 42,000 tons of ore was shipped the first year. Over 30 mines eventually operated in the area. During the Panic of 1893, all but one of the mines, the Paint River Mine, shut down, but opened again when economic conditions improved. By the early 1900s, the town was booming. The community had been incorporated as a village in 1889, and as a city in 1899. Growth continued until the 1940s, when most of the mines had shut down. A few mines re-opened after World War II, but closed again when they could no longer compete with the large open pit mines and pelletized ore. Once the mines had closed, the railroad into Crystal Falls was abandoned. No active rail lines currently enter the City, although the Canadian National (Wisconsin Central) line from Sagola to Amasa runs nearby. The business district continued to flourish until the 1960s, but like many other small communities has since seen the loss of many traditional downtown businesses. Department stores have left the community, as have many smaller retail stores. Recent development, including retail and service businesses, has taken place on the west edge of town, in Crystal Falls Township. The post office, courthouse, city hall, Crystal Theater and Contemporary Center act as anchors to draw people into the downtown area, which still contains a mix of retail and service businesses. While there are some

vacant storefronts, the downtown has the advantage of being located on a main highway corridor. Many communities must lure travelers off the highway to visit the downtown area. The City of Crystal Falls offers many municipal services to its residents. While municipal water and sewer are offered almost universally in all cities, Crystal Falls also offers cable television on a city-owned system, and generates electricity for its municipal system at a city-owned hydroelectric dam. Both electricity and cable TV are distributed on a city-owned network of poles and lines. An Industrial Park has recently been designated as a tax-free Renaissance Zone, providing incentives for industry to relocate or expand in the area. The City is actively working to upgrade its infrastructure and market itself as an attractive location for new business, industry, and families, and through development of this plan will chart a course for future growth and development. The city's strategic location at the intersection of U.S. 2, U.S. 141 and M-69 is an advantage for future development.

2.0 POPULATION

2.1 Introduction

Population change is the primary component in tracking a community's past growth and forecasting future population trends. Population characteristics relate directly to a community's housing, education, recreation, health care, transportation, and future economic development needs. The growth and characteristics of population in a community are subject to changes in prevailing economic conditions.

To fully understand the population issues of a community requires an analysis that includes surrounding areas because of the many ways in which communities are interrelated. Examining trends and changes among communities and drawing comparisons and contrasts helps to paint a fuller demographic picture. It is common for residents to work, shop, recreate and find essential services such as medical care in other communities.

TABLE 2-1				
1990-2000 Population Change, Iron County Jurisdictions				
Unit of Government	Population		Population Change 1990-2000	
	1990	2000	Number	Percent
City of Crystal Falls	1,922	1,791	-131	-6.8
Bates Township	966	1,021	55	5.7
Crystal Falls Township	1,614	1,722	108	6.7
Hematite Township	366	352	-14	-4.0
Iron River Township	1,398	1,585	187	13.4
Mansfield Township	248	243	-5	-2.0

Mastodon Township	654	688	34	5.2
Stambaugh Township	1,224	1,248	24	1.9
City of Caspian	800	997	197	24.6
City of Gaastra	376	339	-37	-9.8
City of Iron River	2,095	1,929	-166	-7.9
City of Stambaugh	1,281	1,243	-38	-3.0
Iron County	13,175	13,138	-37	-0.3

1990 and 2000 population figures for all Iron County jurisdictions are presented in Table 2-1. The City of Crystal Falls experienced a loss of 131 persons over the last decade, from 1,922 to 1,722 people. This amounted to a decline of 6.8 percent, and continues a trend experienced over much of the past 60 years, as shown below in Table 2-2.

While the cities in Iron County generally experienced a population decline during the 1990s, the townships surrounding those cities increased in population. This phenomenon was common throughout the U.P. as well as elsewhere in Michigan, with the incorporated communities losing population to the neighboring townships.

Source: U.S. Bureau of the Census, Census 2000 SF-1 and 1990

Census SF-1, P1

<p>TABLE 2-2</p> <p>Population Change, 1940-2000</p>
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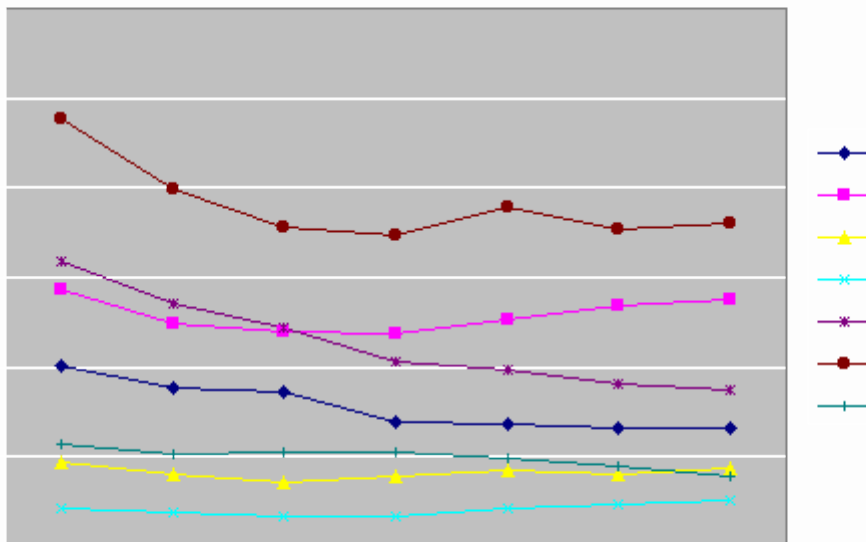
Year	Iron County		City of Crystal Falls	
	Population	% change	Population	% change
1940	20,243	--	--	--
1950	17,692	-12.6	2,316	--
1960	17,184	-2.9	2,203	-4.9
1970	13,813	-19.6	2,000	-9.2
1980	13,685	-0.9	1,965	-1.8
1990	13,175	-3.7	1,922	-2.2
2000	13,138	-0.3	1,791	-6.8

Over the 60-year period from 1940 to 2000, Iron County experienced a population decline of over one-third. The City of Crystal Falls experienced a similar decline during this time period, losing over 22 percent of its population between 1950 and 2000. The two decades where the most significant population loss occurred were the 1940s, with a 12.6 percent decline, and the 1960s, when the population declined by nearly 20 percent. The drop in population in the 1940s was common in the Upper Peninsula, coinciding with the economic downturn in the mining industry and the general trend of migration to urban areas. In Iron County, the population decline in the 1960s is probably linked to the closure of the last of the iron mines in the region.

Source: U.S. Bureau of the Census, 2000 Census, Table DP-1; 1990 Census, SF-1; University of Virginia Geospatial and Statistical Center, U.S. Census Historical Census Data Browser; WUPPDR.

After 1970, the population decline in Iron County slowed significantly, with a loss of

700 people since 1970. While this is more encouraging than continued sharp declines, the fact remains that the population continues to decline. Figure 2-1 compares the population trend in Iron County to neighboring counties in Michigan, as well as Florence County, Wisconsin. All of the counties shown in Figure 2-1 experienced population losses after 1940, but in some cases the trend was reversed in the 1970s and the population is now increasing. Dickinson County, for example, has seen its population recover almost to 1940 levels. Statewide, the population increased in each decade, although the growth rate during the 1980s was very small. This was a period when Michigan as a whole was experiencing large job losses from what was then termed the "Rustbelt," as industries relocated to the nation's "Sunbelt." Overall, during the 60-year period presented in the comparison, Michigan's population has increased by 89.1 percent.



2.3 Age and Gender

Median ages from the 2000 Census for selected units of government are

shown in Table 2-3. Crystal Falls' median age has increased by 4.2 percent over the past decade to 45 years, significantly higher than the state and national averages. Even though Crystal Falls' median age is much higher than the state and the nation, the state and national medians increased by a greater amount. Crystal Falls' population was already almost 11 years older than the statewide median in 1990. Even at this relatively high level, the City's population was still younger on average than other areas in Iron County.

The Upper Peninsula in general tends to have a much older population than Lower Michigan. This trend toward a higher median age is a clear indication of the aging of the population. This aging population will in turn affect the types of services local governments are expected to provide, including recreational facilities, transportation, health care,

education, housing, etc. It is also related to declining school enrollment.

TABLE 2-3			
Median Age, 1970-2000, Selected Areas			
Unit of Government	1990	2000	Percent Change
City of Crystal Falls	43.2	45.0	4.2
Iron County	43.6	45.4	4.2
City of Iron River	48.6	46.6	-4.1
Crystal Falls Township	45.6	48.4	6.1
State of Michigan	32.6	35.5	7.9
United States	32.9	35.3	7.3
Dickinson County, Michigan	36.3	40.0	10.2

Florence County, Wisconsin	36.2	41.9	15.7
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The increase in the median age is due to several factors. The average

life expectancy in the U.S. has continued to the increase, with people living longer than ever before. Families also have fewer children than previous generations, and more women are delaying child-bearing until their 30s or even 40s.

Analyzing the age structure of a local population can aid in decision making, and also provide some insight into future age structure. Table 2-4 shows Crystal Falls', Iron County's and the state's population broken down into four broad categories: preschool age, school age, working age and retirement age.

Source: U.S. Bureau of the Census, 1990 Census of the Population, STF 1A, Table 1; 1970 Census of the Population, Table 33; 2000 Census of Population and Housing, Table DP-1

While there can be variations between these age groups (e.g., one individual may enter the work force at 18, while another does not begin working until after college), these groups give a general representation of the age structure of a community.

A change that has occurred almost universally across the country in recent decades is a shift from the school age and working age population into the retired age group. The proportion of individuals in the preschool and school age groups continues to shrink, contributing to enrollment declines in local schools. Meanwhile, as the so-called "baby

boomers" reach retirement age, a smaller proportion of the population is in the workforce and contributing to pension funds, etc. that help support retirees.

The percentage of preschool-aged children in Crystal Falls is the same as the proportion countywide, but is more than two full percentage points below the statewide average. This low figure indicates a continued decline in the number of young children entering local schools, and eventually the workforce. Those in the 5 to 19 age group, or school-aged, make up 20.4 percent of the City's total population.

The proportion in the County as a whole was lower, while statewide over 22 percent of the population was in this age group.

The working age population is significantly lower than the state average for both Crystal Falls and Iron County, but the difference is most striking in the City. Less than half the total population is in the working age group, compared to 58.7 percent statewide.

Residents aged 65 and above comprise over a quarter of the City and County population.

With 28.7 percent of the 2000 population 65 or older, the City of Crystal Falls retirement age population is over twice the proportion statewide (12.3 percent).

TABLE 2-4							
Population by Age Groups, Selected Areas, 2000							
Age	City of Crystal Falls			Iron County		State of Michigan	
	Total	Percent		Total	Percent	Total	Percent
Under 5	77	4.3		559	4.3	672,005	6.8
<i>Subtotal</i>	77	4.3		559	4.3	672,005	6.8
5 - 9	99	5.6	School Age	712	5.4	745,181	7.5
10 - 14	122	6.8		864	6.6	747,012	7.5

15 - 19	144	8.0		865	6.6	719,867	7.2
Subtotal	365	20.3		2,441	18.6	2,212,060	22.2
20 - 34	193	10.8	Working Age	1,618	12.3	2,006,010	20.2
35 - 44	261	14.6		1,877	14.3	1,598,373	16.1
45 - 54	221	12.3		1,861	14.2	1,367,939	13.7
55 - 64	160	8.9		1,469	11.2	863,039	8.7
Subtotal	835	46.6		6,825	51.9	5,835,361	58.7
65 - 74	198	11.1		Retirement Age	1,508	11.5	642,880
75 - 84	208	11.6	1,314		10.0	433,678	4.4
85 and older	108	6.0	491		3.7	142,460	1.4
Subtotal	514	28.7	3,313		25.2	1,219,018	12.3
TOTAL	1,791	100.0		13,138	100.0	9,938,444	100.0

Source: U.S. Bureau of the Census, 2000, Table DP-1

Nationally, the proportion of working people compared to retirees is shrinking, and with the preschool and school age groups decreasing, the trend can be expected to continue. On a national level, this is reflected in concerns about Social Security and other programs, as the number of working Americans decreases in relationship to retirees. Locally, the ability and/or willingness of working-age residents to support facilities and programs for retirees may decrease; retirees are often perceived as being less willing to support school millages or youth programs.

TABLE 2-5

Gender by Age Group, City of Crystal Falls, 2002

Age Group	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Under 5	41	53.2	36	46.8	77	4.3
5-14	119	53.8	102	46.2	221	12.3
15-24	111	52.9	99	47.1	210	11.7
25-34	63	49.6	64	50.4	127	7.1
35-44	127	48.7	134	51.3	261	14.6
45-54	118	53.4	103	46.6	221	12.3
55-64	75	53.1	85	46.9	160	8.9
65-74	93	47.0	105	53.0	198	11.1
75-84	63	30.3	145	69.7	208	11.6
85 and over	39	36.1	69	63.9	108	6.0
Total	849	47.4	942	52.6	1791	100.0

Source: U.S. Bureau of the Census, 2000, Table DP-1

Age and gender composition of the City's population in 2000 is presented in Table 2-5.

As with the earlier information on the local population, this information helps to form a picture of the types of services which may be needed in a community. For example, Table 2-5 reiterates the information from Table 2-4 which shows that a higher than average segment of the population is 65 and over. This table further shows, however, that the majority of this older population is female. This may have an impact on the types of housing and other services needed by this segment of the population. The general trend is for the younger age groups to have slightly more males than females, reflecting the fact that more males are born than females. The higher life expectancy of females, however, is the primary cause of the high proportion of females in the older age groups.

The smallest 10-year age group in the City is those people aged 25 to 34 years old in 2000. By contrast, more than twice as many individuals ages 35 to 44 were living in Crystal Falls in 2000. Rural communities in the U.P., as elsewhere in the country, often complain of losing their "best and brightest" young people after high school, a phenomenon sometimes called "brain drain." The lack of jobs in rural communities is often cited as a factor in communities being unable to retain local youth; however, this factor may be exaggerated. It is not uncommon for young people to leave their hometown even when jobs are available. What the relatively high proportion of residents ages 35 to 44 may show is something observed in other areas in the U.P., that is, the tendency of those raised in a local community to return later in life due to a desire to raise their families in the same sort of environment they grew up in. This trend has not been scientifically proven, but there is significant anecdotal evidence that this is often the reason for people returning to the Upper Peninsula.

2.4 Racial Composition

The racial composition of Crystal Falls is overwhelmingly white, a common

characteristic of the region. Non-white residents are mainly of American Indian descent. Non-whites as a percentage of the population increased from 0.9 percent in 1990 to 2.0 percent in 2000. Persons of Hispanic origin do not figure in this total, as they can be of any race. In 2000, 14 of the 22 people who reported that they were Hispanic characterized themselves as white.

For the first time in the 2000 Census, respondents could identify themselves and family members as being of two or more races. There is no direct comparison for this figure in previous years, and it is probably safe to assume that some of those who identified themselves as a member of a single minority group in 1990 are listed in 2000 as being of two or more races. Also in 2000, separate categories were established for Asian and Hawaiian or other Pacific Islander. For purposes of comparison to previous years, these figures have been combined in Table 2-6.

Race	1990		2000	
	Number	Percent	Number	Percent
White	1,904	99.1	1,756	98.0
Black or African American	3	0.2	1	0.1
American Indian & Alaska Native	12	0.6	11	0.6
Asian & Pacific Islander	1	0.1	2	0.1
Other Race	2	0.1	7	0.4
Two or more races	NA	-	14	0.8
Hispanic (any race)	14	0.7	22	1.2
Total	1,922	100.0	1,791	100.0

Source: U.S. Bureau of the Census, 1990 Census of the Population, STF 1A, Table

P006; 1980 Census of the Population, STF 1A, Table 007; Profile of General

Demographic Characteristics: 2000, Table DP-1

2.5 Household Characteristics

Evaluation of the changes in household characteristics in a community can often provide valuable insights about population trends. Household relationships reflect changing social values, economic conditions, and demographic changes such as increased life spans and the increasing mobility of our society. Table 2-7 and Figure 2-2 illustrate trends from 1990 to 2000.

A household is defined as all persons who occupy a housing unit, according to the Bureau of the Census. This can include one person living alone, a single family, two or more families living together, or any groups of related or unrelated persons sharing living quarters. Persons in institutional or group quarters at the time of the Census are not included in households, but instead are counted as in group quarters. Examples of group quarters or institutions include prisons, jails, college dormitories, or nursing homes.

A family consists of a householder and one or more persons living in the same household who are related by birth, marriage, or adoption. A non-family household can be one person living alone, or any combination of people not related by blood, marriage, or adoption.

Total households within the City decreased by 2.6 percent between 1990 and 2000, from 816 to 795. This decrease was less than the rate of loss of total population however, which was 6.8 percent. This can be attributed to the drop in household size from 2.24 to 2.13 persons per household in 2000.

The number of family households decreased over the past decade, although family households still make up nearly 60 percent of the total households in Crystal Falls. The proportion of married-couple families decreased, while the proportion of male or female householder with no spouse present increased. Non-family households increased from 1990 to 2000, with a slight increase in persons living alone. In 1990, 283 of the 312 non-family households were one-person households. Of these, 205 were elderly persons (65 years and older) living alone, and 168 of these elderly households was a woman living alone. In 2000, 177 of the 293 one-person households was an elderly person, and 149 of them were women.

TABLE 2-7				
Household Characteristics, City of Crystal Falls, 1990-2000				
Household Type	1990		2000	
	Number	Percent	Number	Percent
Family Households	504	61.8	471	59.2
Married-Couple Family	423	51.8	366	46.0
Female Householder	55	6.7	75	9.4
Male Householder	29	3.6	30	3.8
Non-Family Households	312	38.2	324	40.8
Householder 65 and over, living alone	205	25.1	177	22.3
Total Households	816	100.0	795	100.0
Average Household Size	2.24		2.13	

Source: U.S. Bureau of the Census, 1990 Census of the Population and Housing, STF 1A, P003, P016 and H017A; 1980 Census of the Population and Housing, STF 1, 003, 016, 035; Profile of General Demographic Characteristics: 2000 Census, Table DP-1

It is somewhat surprising that the number of elderly householders living alone actually

fell slightly over the past decade. Given the increase in the proportion of elderly residents, the expectation was that elderly households would increase. One or more of the following factors could account for this: both spouses are living to an older age, resulting in fewer widows and widowers, widowed elderly are living with adult children or other family members; or they are living in group quarters. The group quarters population is not included in the household statistics.

In 1990, there were 98 people in group quarters in Crystal Falls, and in 2000 there were 97. According to the 1990 Census, 86 people were in institutions, and 12 were in other types of group quarters. In 2000, 90 were in institutions and seven in other group quarters.

2.6 Population Projections

Population projections are useful for community planning endeavors. For instance, demand for certain types of public services can be anticipated by using sound population projections. Formulating projections is complicated and fraught with unknowns such as unforeseen economic events that can greatly influence migration. Other considerations, like fertility and mortality data, also have an impact.

In 1996, the Michigan Department of Management and Budget prepared baseline projections to the year 2020 for all Michigan counties using a formula that includes the three main components of population change: births, deaths and migration. The 30-year population forecast for Iron County anticipated a continued decrease in population, and in fact over-estimated the decrease by 2000 compared to what the Census actually showed. Continued decreases are forecasted based on the 1990 Census figures. Since these projections have not been updated to reflect the 2000 Census, and because the projections based on the 1990 Census proved inaccurate,

the most recent projections are not included in this plan. When these projections are revised to reflect the 2000 Census, however, they may prove useful for planning purposes.

3.0 ECONOMIC BASE

3.1 Introduction

Community growth and stability are directly linked to the local economic base. Two major sectors make up an economy: one that provides goods and services for markets outside the community (basic or export sector) and one that provides goods and services for local consumption (non-basic sector). The economic health of a community is closely linked to the creation and retention of local basic sector jobs. Factors affecting a local community's economy can be local in nature, but can also extend well beyond local boundaries. Statewide, national and even global trends can affect the economy in communities like Crystal Falls. In this chapter, current information from the City of Crystal Falls, Iron County, and the state will be presented for analysis and comparison. Much of the economic information presented is available only at the county level. Even where information is available for a particular community, it is often difficult to separate a specific community from its neighbors, due to the willingness of residents to travel from one community to another for employment, education, and so on. A family living in Crystal Falls Township, for example, may include one spouse working in Iron River, while the other works in Crystal Falls. They may utilize churches and schools in the City, and travel outside the county to shop or for entertainment.

3.2 Area Economy

The City of Crystal Falls was founded as a result of the discovery of iron ore in the area, and iron mining was a mainstay of the local economy for many years. As soon as the Chicago and Northwestern Railroad was extended to the community, ore was shipped

to steel mills in the lower Great Lakes region, helping to fuel growth in those areas as well. Lumbering was also important to the local economy, with the large pine forests of the area providing logs and lumber for the building of communities throughout the Midwest. Fur trading was important in the early days of the area as well, with the forest, lakes and rivers yielding fur to be shipped to outside markets in exchange for money or goods.

As the iron mines began to close to an inability to compete with the large open pit mines with pelletizing operations, the local economy began a shift to more of a service economy, and the local population began to decline. This was not an uncommon experience in the rural Midwest, as heavy industry gave way to smaller industry and suppliers to firms in more urban areas.

Table 3-1 shows the largest employers in Iron County. As can be seen from this table, the largest employers are generally in the service sector, with only two manufacturers among this group. This trend is not uncommon in rural areas where service employment growth has often outpaced industrial growth, and where large industrial employers have downsized, closed, or moved from the area. Nationally, manufacturing employment has been virtually stable for decades, a result of several factors. Automation has allowed manufacturers to produce goods more efficiently, with fewer employees. At the same time, in order to compete in the global market, many companies have moved part or all of their operations to overseas locations where labor is less expensive and regulations are often less burdensome.

While there are few large employers in the Iron County area, many small and mid-sized firms are located in the area. These firms cumulatively employ many more people than the few larger employers, and help to diversify the local economic base.

In addition to these employers in the County, local residents may be employed in neighboring counties in Michigan or Wisconsin, where several other large employers and many small employers are located.

TABLE 3-1			
Major Employers, Iron County			
Employer	Location	Product	Employment
Iron County Medical Care Facility	Crystal Falls	Health care	298
West Iron County School District	Iron River	Education	160
Iron County Community Hospital	Iron River	Health care	150
Lake Shore, Inc.	Iron River	Naval equipment, cranes	130
Connor Sports Flooring	Amasa	Hardwood sports flooring	120
Angeli's Central Market	Iron River	Grocery store	110
Iron River Care Center	Iron River	Health care	85
Forest Park School District	Crystal Falls	Education	80

Source: Telephone contacts with employers, 2003

Tourism is an industry that is becoming less seasonal in nature in recent years. Whereas tourism formerly occurred primarily in the summer months, skiing and snowmobiling now draw increasing numbers of winter visitors to the Upper Peninsula. Fall color tours attract visitors during the fall, and in many areas gambling casinos have become a year-round attraction. Some areas also capitalize on local history to attract tourists. Crystal Falls contains several historic buildings, including the county courthouse and city hall, and has a rich mining and lumbering history. Three golf courses in the area, along with the Ski Brule ski resort near Iron River lure visitors from outside the local area as well.

Another change in the tourism industry has been the trend away from one long family vacation in favor of shorter mini-vacations, often extended weekends. Recent national events have also contributed to this trend, as some travelers are reluctant to fly and prefer to stay closer to home. Heritage-tourism and eco-tourism have increased in popularity. Heritage-tourism draws those interested in the historic and cultural offerings of a community or institution. In the local area, the Iron County Heritage Trail has been designated by the Michigan Department of Transportation as a Heritage Route. This route allows tourists to visit a variety of attractions highlighting the history of the local area. Eco-tourism has gained popularity among those wanting to experience nature through activities such as bird watching, hiking, and kayaking.

3.3 Civilian Labor Force Characteristics

Those persons 16 years and over, currently employed or currently seeking employment (excluding persons in the armed forces) make up the civilian labor force. As the age composition of a local population changes, changes occur in the nature of the labor force. The labor force can also change seasonally, such as during the summer when high school and college students become part of the work force, and seasonal businesses such as resorts expand their workforce. Knowledge of a community's labor force is helpful in understanding the local economy. It is useful to know what skills a local labor force may have, how many people are employed or seeking employment, etc., in order to provide this information to firms which may be interested in locating in or expanding in a community.

The decennial Census provides information about the City's labor force. Although this information becomes more outdated later in the decade, it still is the most readily available characterization of the local labor force. In 1990, according to the Census,

47.9 percent of the City's population 16 years of age and older was in the labor force (labor force participation rate). In 2000 the labor force participation rate was 47.8 percent. Iron County's labor force participation rate was 47.9 percent in 1990 and 51.1 percent in 2000. Labor force participation rate at the state level was 64.1 percent in 1990 and 64.6 in 2000. The relatively low labor force participation rates in the City and County are in all likelihood related to the age structure of the population as discussed in Chapter 2. The relatively older population, compared to the state as a whole, would include a higher percentage of retirees who are no longer in the labor force. Later in this chapter information on the source of local income will be analyzed, and this data would appear to support this assumption (see Table 3-8).

Comparative employment information and labor force comparisons by gender are provided in Table 3-2. In 1990 the City's labor force consisted of 55.0 percent males and 45.0 percent females. By 2000, the labor force was nearly equally divided between males and females, at 50.3 and 49.7 percent, respectively. The proportion of employed and unemployed males and females, however, is not so evenly divided, with women showing a lower unemployment rate than men. The increasing proportion of women in the labor force over the past 10 years is typical of most communities, where the labor force participation rate of women has increased significantly in recent decades. The availability of child care, increased educational opportunities for women, the need for two incomes to maintain a household in many cases, and a relaxing of societal pressures for women to stay in the home have all contributed to this trend.

It is important to remember in making comparisons between this information and information presented later in this chapter on unemployment rates, that this labor force information describes persons living in the jurisdiction being analyzed. These

individuals may actually be employed in another community. Information presented later in this chapter and obtained from the State of Michigan Labor Market Information office is based on actual employment in a county or region, and the persons holding those jobs may not live in the county where they are employed.

Source: Telephone contacts with employers, 2003

Tourism is an industry that is becoming less seasonal in nature in recent years.

Whereas tourism formerly occurred primarily in the summer months, skiing and snowmobiling now draw increasing numbers of winter visitors to the Upper Peninsula. Fall color tours attract visitors during the fall, and in many areas gambling casinos have become a year-round attraction. Some areas also capitalize on local history to attract tourists. Crystal Falls contains several historic buildings, including the county courthouse and city hall, and has a rich mining and lumbering history. Three golf courses in the area, along with the Ski Brule ski resort near Iron River lure visitors from outside the local area as well.

Another change in the tourism industry has been the trend away from one long family vacation in favor of shorter mini-vacations, often extended weekends. Recent national events have also contributed to this trend, as some travelers are reluctant to fly and prefer to stay closer to home. Heritage-tourism and eco-tourism have increased in popularity. Heritage-tourism draws those interested in the historic and cultural offerings of a community or institution. In the local area, the Iron County Heritage Trail has been designated by the Michigan Department of Transportation as a Heritage Route. This route allows tourists to visit a variety of attractions highlighting the history of the local area. Eco-tourism has gained popularity among those wanting to experience nature through activities such as bird watching, hiking, and kayaking.

TABLE 3-2

Employment Status of Civilian Labor Force, Selected Areas, 1990 and 2000

Characteristics	City of Crystal Falls				Iron County				Michigan	
	1990		2000		1990		2000		1990	2000
	No.	%	No.	%	No.	%	No.	%	%	%
Civilian Labor Force	734	100.0	684	100.0	5,052	100.0	5,515	100.0	100.0	100.0
Female	330	45.0	340	49.7	2,177	43.1	2,601	47.2	45.5	46.8
Male	404	55.0	344	50.3	2,875	56.9	2,914	52.8	54.5	53.2
Employed	673	100.0	628	100.0	4,552	100.0	4,994	100.0	100.0	100.0
Female	312	46.4	323	51.4	1,999	43.9	2,477	49.6	45.8	47.0
Male	361	53.6	305	48.6	2,553	53.2	2,517	50.4	54.2	53.0
Unemployed	61	100.0	56	100.0	500	100.0	521	100.0	100.0	100.0
Female	18	29.5	17	30.4	178	35.6	124	23.8	42.6	44.3
Male	43	70.5	39	69.6	322	64.4	397	76.2	57.4	55.7

Source: U.S. Bureau of the Census, 1990 Census of the Population and Housing, STF 3A, DP-3; 2000 STF-3, DP-3.

3.4 Employment by Industry Group

Employment information collected for the 2000 Census and categorized using the Standard Industrial Classification (SIC) manual is presented in Table 3-3. The use of this system classifies establishments by the type of industrial activity in which they are engaged. The census information used is based on the answers local residents provided, and so may not correspond exactly with the SIC codes used in reporting information to the Michigan Employment Agency. Furthermore, the Census information

represents Crystal Falls residents only, who may work outside the City; the data in Table 3-3 is not indicative of the types of jobs provided in the City.

At the time of the 1990 Census, the sector employing the largest proportion of local residents was the service sector, at 39.8 percent. By 2000, that sector employed nearly half of the local labor force. Retail trade, the second-largest sector in 1990 at 15.5 percent, had fallen to 11.3 percent in 2000. Manufacturing dropped from 13.8 percent in 1990 to 7.0 percent in 2000, while construction employment among local residents grew from 8.8 percent in 2000, while construction employment among local residents grew from 8.8 percent to 9.2 percent to take over the third ranking in 2000. This growth of construction employment may be countered by the current economic downturn. The percentage of construction employment is significantly higher than the statewide average, as is the percentage of people employed in agriculture, forestry, fisheries and mining. Local manufacturing employment was much lower than statewide levels in 1990, and decreased at a greater rate between 1990 and 2000.

TABLE 3-3
Employment by Broad Economic Sector, Selected Areas, 1990 and 2000

Broad Economic Sector	City of Crystal Falls				Iron County		Michigan	
	1990		2000		1990	2000	1990	2000
	No.	Percent	No.	Percent	Percent	Percent	Percent	Percent
Agriculture, Forestry, Fisheries & Mining	18	2.7	12	1.9	4.4	4.3	2.0	1.1
Construction	59	8.8	58	9.2	10.3	7.5	4.9	6.0
Manufacturing	93	13.8	44	7.0	15.1	9.9	24.6	22.5
Transportation and utilities	25	3.7	43	6.9	4.1	6.6	5.5	6.2
Wholesale Trade	21	3.1	11	1.8	2.3	2.6	4.0	3.3
Retail Trade	104	15.5	71	11.3	20.2	12.8	18.0	11.9

Finance, Insurance & Real Estate	39	5.8	33	5.3	3.6	4.3	5.4	5.3
Service	268	39.8	298	47.5	33.5	45.2	31.8	40.1
Public Administration	46	6.8	58	9.2	6.5	6.8	3.7	3.6
Total	673	100.0	628	100.0	100.0	100.0	100.0	100.0

Source: U.S. Bureau of the Census, 2000, DP-3

A comparison of wages derived from manufacturing, wholesale and retail trade and the service sector for all Upper Peninsula counties is presented in Table 3-4. It is noteworthy that the three south-central counties of Delta, Dickinson and Menominee generated 61.5 percent of all the Upper Peninsula's manufacturing wages in 1999. The percentage of wages derived from manufacturing in Iron County was higher than many counties, but the actual manufacturing wages in 1990 were among the lowest in the U.P. The percentage of wages derived from wholesale and retail trade, on the other hand, was higher than any other U.P. county, while service-sector total wages were about average in proportion. What this example serves to illustrate is the desirability of manufacturing jobs. While only accounting for 9.9 percent of Iron County's employment in 2000, manufacturing jobs generated 19.8 percent of the county's wages in 1999. Conversely, the service sector, with 45.2 percent of employment in 2000, generated 28.4 percent of wages in 1999. While wages in the service sector have increased in recent years, and probably will continue to do so as the labor force shrinks and demand for services such as health care increases, it is clear that these jobs do not generate the income levels of manufacturing jobs. Manufacturing jobs, however, are more difficult to attract and retain, as companies downsize and move operations out of the U.S. to take advantage of cost savings.

TABLE 3-4				
Manufacturing, Wholesale and Retail Trade Wages, Upper Peninsula Counties, 1999				
County	Total Manufacturing Wages	Percent of Total County Wages		
		Manufacturing	Wholesale & Retail Trade	Services
Alger	\$30,324,983	55.6	12.0	14.5
Baraga	\$26,498,786	44.8	10.3	29.7
Chippewa	\$20,742,161	10.6	21.2	47.2
Delta	\$136,410,965	42.0	16.8	22.5
Dickinson	\$108,340,843	36.8	20.0	16.1
Gogebic	\$18,452,828	19.7	22.4	42.0
Houghton	\$32,765,144	17.1	21.5	32.4
Iron	\$10,923,220	19.8	25.7	28.4
Keweenaw	\$973,204	13.8	13.5*	61.8
Luce	\$7,266,557	30.5	34.5	11.7
Mackinac	\$2,710,985	3.4	26.8	44.5
Marquette	\$27,310,979	5.1	17.0	37.4
Menominee	\$85,934,604	47.2	15.7	20.4
Ontonagon	\$17,342,190	43.5	17.0	14.4
Schoolcraft	\$11,747,585	24.9	19.3	18.3

* Retail trade only; wholesale trade figures not available.

Source: Michigan Covered Employment Statistics, Private (ES-202), Michigan Labor Market Information, 1999 Annual Data

3.5 Employment by Place of Work

In 1990, according to the Census, about 84 percent of Crystal Falls's working population

was employed in Iron County; in 2000 the proportion employed in the County remained nearly identical. The proportion of local residents who worked outside of Michigan more than doubled, although the number remained small. While most of those who worked outside of Michigan probably commute to Wisconsin, more detailed Census information available at the County level shows Iron County residents working in Colorado, Indiana, and the Chicago area. It is interesting to note that just over half of the employed Crystal Falls residents worked in the City. 199 local residents found employment in Iron County, but outside of Crystal Falls. This information is summarized in Table 3-5.

The workplace is changing as technology changes, with workers having more mobility than ever before as a result of technology. While many businesses will always require employees in an office or retail location to serve customers, and industries will require workers on site to manufacture goods, for example, more and more employees can work from a satellite location or even from their home. Laptop and tablet computers, cell phones, pagers, fax machines, and video conferencing are among the technologies that make this flexibility possible. Individuals in such positions will find that they can live where they choose, needing only Internet access, reliable telephone service, and perhaps quick access to an airport if frequent travel is required. For rural areas such as Crystal Falls, these residents can contribute to the local economy, send children to local schools, etc., while working for an employer whose office may be on the other side of the country. It also means that Crystal Falls must compete against other communities to attract such individuals to Crystal Falls rather than another location.

TABLE 3-5

Residents Aged 16 or Older by Place of Work, City of Crystal Falls, 1990 & 2000

Characteristics	1990		2000	
	Number	Percent	Number	Percent
Total City Residents Employed	666*	100.0	618*	100.0
Worked in Michigan	659	98.9	603	97.6
Worked in Iron County	559	83.9	519	84.0
Worked in City of Crystal Falls	NA	--	320	51.8
Worked outside Iron County	100	15.0	84	13.6
Worked outside of Michigan	7	1.1	15	2.4

Source: U.S. Bureau of the Census, 1990, STF 3A, P045, P048; 2000 DP-3, P045, P048.

* Totals do not match those in Table 3-2, probably due to sampling error

3.6 Unemployment

County unemployment and labor force data are collected and analyzed by the Michigan Employment Security Agency, formerly known as the Michigan Employment Security Commission (MESC). Actual unemployment information is reported by county, and rounded to the nearest 25. Comparative data are presented in Table 3-6 and Figure 3-1. Iron County has generally recorded higher unemployment rates than the rest of the Upper Peninsula, which in turn are higher than statewide and national unemployment rates. However, in recent years the gap between the county unemployment rate and averages in wider areas has decreased.

The size of the labor force and the proportion of unemployed persons are of course related to economic conditions. While unemployment rates in recent years have been among the lowest ever, it appears unemployment is increasing. The labor force, meanwhile, has shrunk to its lowest level since 1991. A shrinking labor force can lower unemployment rates by removing persons from the labor force, and can be an indication that residents have exhausted their unemployment benefits, have moved to other areas

to seek work, or have given up the job search.

TABLE 3-6							
Labor Force and Unemployment, 1970-1999							
	Iron County Labor Force			Unemployment Rates by Percent			
	Employed	Unemployed	Total Labor Force	Iron County	Upper Peninsula	State of Michigan	United States
1970	4,325	675	5,000	13.5	9.3	7.0	4.9
1975	5,650	775	*6,450	12.1	12.3	12.5	8.5
1980	5,400	725	6,125	11.8	12.2	12.4	7.1
1985	5,025	875	5,900	15.0	15.1	9.9	7.2
1990	4,800	475	5,275	9.1	9.2	7.5	5.3
1991	4,750	600	5,350	11.3	10.7	9.2	6.7
1992	4,875	625	5,500	11.4	11.0	8.8	7.4
1993	5,025	575	5,600	10.2	8.7	7.0	6.8
1994	5,000	625	5,625	10.9	8.7	5.9	6.1
1995	5,000	525	5,525	9.5	8.9	5.3	5.6
1996	5,125	475	5,600	8.4	7.9	4.9	5.4
1997	5,250	425	5,675	7.3	7.3	4.2	5.0
1998	5,225	350	*5,600	6.4	6.5	3.9	4.5
1999	5,250	375	*5,650	6.8	6.3	3.8	4.2
2000	5,125	350	*5,450	6.4	5.8	3.6	4.0
2001	5,100	350	*5,475	6.4	6.8	5.3	4.8
2002	5,000	350	5,350	6.7	7.3	6.2	5.8

Source: Michigan Employment Security Agency for years cited

*indicates that employed and unemployed as published differ from total labor force by 25

3.7 Income

An analysis of local income trends and sources of income is helpful in understanding the local economy. This information can give an idea how much disposable income is available in the local population, the ability and willingness to pay for services, and provides a point of comparison between the local area and statewide trends.

The U.S. Census gathers information on income on the so-called "long form," and compiles that information in several different ways. Per capita income is calculated by dividing the total aggregate income for all persons in an area by the number of persons in that area. Family income is the total income for all members of a family household; family households exclude one-person households and households whose members are not related through blood, marriage or adoption. Household income includes all types of households, both family and non-family.

Historical Census information present income information based on that year's dollar values. When comparing income across the decades, this can be somewhat misleading, as the increases in income can seem fairly large. To adjust for this, the Census Bureau calculates an inflation factor which can be used to adjust for the effect of inflation over the 10-year period between censuses. Adjusting incomes for inflation gives a more accurate picture of whether or not buying power or disposable income actually increased, and whether residents' financial condition improved. For example, many communities in Michigan saw significant increases in income between the 1980 and 1990 census years. When inflation was taken into account, however, it could be seen that actual incomes dropped in many cases. This meant that in those areas, people actually had less money to spend when the increased cost of goods and services was taken into account. Between 1990 and 2000, most areas saw actual increases in incomes after inflation, reflecting the general economic prosperity of the late 1990s. Table 3-7

depicts the income trends for several local units in Iron County, along with statewide averages.

TABLE 3-7						
Income Levels, Selected Areas, 1989-1999						
	1989 Actual Income	Income Adjusted for Inflation	Percent of State	1999 Actual Income	Percent of State	Percent Change 1989- 1999 (adjusted)
Per Capita Income						
City of Crystal Falls	\$9,694	\$12,385	68.5	\$14,538	65.6	17.4
Crystal Falls Township	\$9,388	\$11,994	66.3	\$18,213	82.2	51.9
City of Iron River	\$8,004	\$10,226	56.5	\$15,728	70.9	53.8
Iron County	\$9,077	\$11,597	64.1	\$16,506	74.5	42.3
State of Michigan	\$14,154	\$18,084	100.0	\$22,168	100.0	22.6
Florence County	10,352	13,226	78.0	18,328	86.2	38.6
Median Household Income						
City of Crystal Falls	\$17,885	\$22,850	57.7	\$26,637	59.6	16.6
Crystal Falls Township	\$18,670	\$23,854	60.2	\$34,688	77.7	45.6
City of Iron River	\$12,290	\$15,702	39.6	\$23,438	52.5	49.3
Iron County	\$16,307	\$20,834	52.6	\$28,560	63.9	37.1
State of Michigan	\$31,020	\$39,632	100.0	\$44,667	100.0	12.7
Florence County	22,416	28,640	76.1	34,750	79.4	21.3
Median Family Income						
City of Crystal Falls	\$24,395	\$31,167	66.6	\$35,000	65.5	12.3

Crystal Falls Township	\$23,875	\$30,504	65.1	\$41,600	77.8	36.4
City of Iron River	\$16,464	\$21,035	44.9	\$33,942	63.5	61.4
Iron County	\$16,307	\$20,834	44.5	\$37,038	69.3	77.8
State of Michigan	\$36,652	\$46,828	100.0	\$53,457	100.0	14.2
Florence County	26,637	34,032	75.9	40,840	77.2	20.0

Source: U.S. Bureau of the Census, 2000 DP-3, 1990 STF 3A, P080A, P107A, P114A.

As can be seen from this table, the City of Crystal Falls enjoyed modest gains in income during the 1990s, roughly equivalent to the percentage gains statewide. This means that on average, local residents have slightly more money to spend than they did in 1990, although local incomes still lag well behind statewide averages. Iron County as a whole, as well as Crystal Falls Township and the City of Iron River, saw much greater gains in income between 1990 and 2000, with incomes increasing from 36 to almost 78 percent.

This could be a result of upscale housing development in some areas, such as Crystal Falls Township, which means higher-income households in the area. Another factor may be the high proportion of residents of Crystal Falls with retirement or Social Security income; these residents receive cost-of-living increases, but do not generally see significant gains in income.

Table 3-8 illustrates the sources of income for local households, according to the 2000 Census. Since a household may have more than one type of income, the columns will not total exactly. For example, one person in a household may receive SSI due to a disability, while another household member may earn income from employment.

Type of Income	City of Crystal Falls		Crystal Falls Twp.		Iron County		Michigan
	Number	Percent	Number	Percent	Number	Percent	Percent
Earnings	491	62.2	517	68.6	3,673	64.1	80.2
Social Security	383	48.5	298	39.5	2,547	44.1	26.2
Supplemental Security Income	30	3.8	25	3.3	251	4.4	4.2
Public Assistance	40	5.1	12	1.6	230	4.0	3.6

Retirement	220	27.9	196	26.0	1,642	28.6	19.2
Total	789	100.0	754	100.0	5,734	100.0	100.0

Source: Source: U.S. Bureau of the Census, 2000 SF-3, DP-3.

With the exception of the proportion of households receiving public assistance, the numbers are fairly consistent for Crystal Falls, Crystal Falls Township, and iron County. Crystal Falls Township has a much lower percentage of residents receiving public assistance, which would be expected in a community with overall higher incomes. The comparison of most interest, however, is between the state averages and the local figures. Statewide, 80.2 percent of households have some type of earned income, while the City’s proportion is nearly 20 percentage points lower.

Only 26.2 percent of the state’s households receive Social Security, while in Crystal Falls nearly half of all households receive Social security. The proportion of households with retirement income (other than Social Security) is much higher locally, with nearly 28 percent of Crystal Falls’ households receiving retirement income compared to 19.2 percent of households statewide.

4.0 NATURAL FEATURES AND LAND USE

4.1 Natural Features

One of the most obvious features of the City of Crystal Falls is the steep topography of the area. The main business district is located on a hillside west of the Paint River. Approaching the city from the east on M-69, visitors to the community can see the entire downtown area rising before them along Superior Avenue. From the top of the hill, looking east, the Paint River and the hills across the river can be seen, with the business district in the foreground. Elevations in the city range from approximately 1,300 feet above sea level along the Paint River to over 1,540 feet in the highest areas west of the river.

While offering scenic views and providing an attractive entrance to the community, these steep slopes can present challenges to development as well. Construction techniques must be adapted to compensate for the steep terrain, potentially adding expense. Provision of municipal services can be made more difficult in cases where water or wastewater must be pumped to its destination, rather than relying on gravity. In some steep areas, runoff from storms or melting snow can present drainage problems.

Due to its inland location in one of only two counties in the Upper Peninsula that do not border directly on the Great Lakes, Crystal Falls does not feel the influence of Lake Superior or Lake Michigan the way communities closer to the shoreline do. "Lake effect" snows typically do not reach this far inland, and the lakes are too far away to moderate temperature extremes. The climate is generally characterized as a continental climate, with cold winters and short, relatively cool summers. The average minimum temperature in January is 1 degree Fahrenheit, while the average maximum temperature in January is 22 degrees Fahrenheit. In July the average

minimum is 52 degrees, and the average maximum is 79 degrees. A few miles north of Crystal Falls along U.S. 141 lies the community of Amasa, locally known as the home of extremely cold winter temperatures.

The growing season in Iron County averages between 60 to 100 days, precluding the growing of many crops which require long growing seasons. Average annual precipitation is about 32 inches, and snowfall across the County ranges from 70 to 140 inches per year.

The waterfall which gave the city its name is no longer visible due to the construction of the dam which now provides a third of the city's electrical needs. However, the Paint River remains one of the significant water features in the community, bisecting the city as it flows in a southeasterly direction across the city. Other nearby water features include Runkle Lake, which lies partly within the city, and Fortunes Lakes, Michigamme Reservoir, and the Peavey Falls Reservoir. The city takes advantage of these natural features for recreation, with a park at Runkle Lake, a boat launch and barrier-free fishing pier, and a River Walk along the Paint River.

While the City of Crystal Falls itself is an area considerably altered by human use, with manmade structures predominating, the surrounding areas provide a natural setting for the community. The rural areas around the city are primarily mixed forest, which replaced the white

pine, spruce and hemlock harvested in the late 1800s and early 1900s. These rural areas are dotted with lakes, and concentrations of human habitation consist primarily of homes and cottages along lakeshores and residential areas close to incorporated cities. This natural environment surrounding the city provides scenic beauty, fish and wildlife habitat, raw materials for natural resource-based industries, and generally contributes to the quality of life in the area. A wide variety of fish and wildlife species inhabit these lakes and forests, providing recreational opportunities to hunters, fisherman, and those who enjoy viewing wildlife. Common wildlife species include deer, bear, moose, foxes, rabbits, squirrels, coyotes, raccoons, porcupines, and the like. The gray wolf, a federally-listed Threatened species, is found in forested areas throughout the Upper Peninsula, and probably inhabits the areas around the city. The bald eagle, classified as Threatened, can also be found in the area. Walleye, northern pike, muskellunge, bass, trout and a variety of panfish inhabit area lakes and rivers.

4.2 Land Use Patterns

Land use patterns in Iron County have developed largely as a result of natural resource extraction. The City of Crystal Falls, for example, was founded as a result of the deposits of iron ore in the area, and the roads and railroads which serve the community were established to transport raw materials and materials into and out of the area. Lumber mills were established along the rivers used to bring logs in from distant forests, and communities sprang up around them. Records indicate at least 79 mines in Iron County, and a recent estimate places the number at around 115.

Thirty-four lumber camps were in operation around Crystal Falls in 1884, further

evidence of the area's dependence on natural resources. Recent land use trends are less dependent on natural resources, and new developments have resulted in residential and other uses being established in areas that would have previously been considered undesirable for development.

The City of Crystal Falls has evolved from a mining and lumbering town to a community with a manufacturing base of several small firms, a growing health care sector, and a downtown which has shifted from predominately retail stores to a mix of retail and service businesses. The recent trend has been towards development on the edges of the community, with both residential and commercial development extending farther towards the city limits and into Crystal Falls Township.

Thus, it is evident that land use is not static, but is continuously changing. Changes in land use have been the result of various decisions made by individuals, families, businesses, or governmental/public agencies. It is important to note, however, that land use changes cannot be attributed to a single set of decisions made by one group or individual. Rather they are generally due to a combination of decisions made by a number of individuals, organizations, or public agencies.

4.3 Factors Affecting Land Use

Decisions which affect land use are made at many different levels, including the home buyer, developer, land speculator, or governmental unit.

The home buyer tends to base decisions on location, quality of surroundings, available public services, and personal satisfaction, among other factors.

Land speculators or developers make decisions to hold land in expectation of realizing a profit later or developing or selling at the present time. These decisions are influenced by the supply and demand for various types of housing and the home lending market, demand for goods and services, or industrial needs, among other factors.

It is significant to note the decisions made at these levels serve primarily a person's own interests and often do not consider the effect of development on surrounding land uses, utilities, services, and so on. This decision-making process in itself has the potential to lead to discontinuous development or incompatible arrangements of land uses.

Public agencies, such as federal, state, county or local governments, play an important role in land use changes. Various laws, rules, and regulations attempt to coordinate development for overall community improvement.

The federal government exercises a number of responsibilities that affect land use through various loan and grant programs for such purposes as planning, housing, economic development, and water and sewer systems. Other than funding, they have little control over the direction and magnitude of land use changes. However, it is

evident these programs do have an effect on development; for example, some funding programs will not allow funds to be used for extension of utilities to new areas, but will only upgrade facilities in the existing service area.

Federal regulations concerning environmental protection, fair housing, etc. can impact land use patterns. However, many of these federal regulations are actually enforced by the state, as in the case of the Safe Drinking Water Act, a federal law which regulates public water systems. In Michigan, this and other federal laws are actually enforced by the Michigan Department of Environmental Quality. Federal agencies such as the U.S. Army Corps of Engineers enforce some federal regulations, such as those dealing with wetlands on the Great Lakes shoreline.

The role of the state has traditionally been limited to enacting enabling legislation to local governments to regulate growth and development, and to administering federal grant programs and regulations. However, State laws regarding land division, wet lands protection, farmland preservation, etc., can have a direct effect on local land use decisions.

Local governments can probably exert the most effective influence on land use changes through public investment in projects such as schools, parks, roads, and municipal utilities. Growth and land use can also be regulated by local governments through zoning ordinances, subdivision regulations and building codes. Local planning efforts that seek to define the most suitable uses of an area, anticipate and prepare for future growth can help guide land use decisions.

Among other factors, the transportation system has a great deal of influence on land use. As the interstate and local highway systems throughout the country expanded and vehicle ownership became more common during the 20th century, land use patterns changed on response. Rather than living the majority of their lives in a single community, or even a neighborhood in that community, people now travel routinely between communities daily for employment, health care, shopping, recreation, educational opportunities, etc. This has contributed to urban sprawl and the out-migration from urban areas. The transportation system is also vital to business and industry as a means of moving goods, raw materials, and customers.

However, it should be noted that these are not the only decisions influencing land use changes. Taxation, land values, proximity to industrial areas, and terrain all play a part in land use changes. Changing technology, including e-mail, the Internet, fax machines and teleconferencing, means that some businesses and industries can now consider locating in areas where they would previously have been too far from their markets, or from a central facility. It is expected that telecommuting and working from home or a small satellite office linked electronically to a central office will become more common. Changes in lifestyles, family size, shopping habits and other attributes also affect land use patterns.

Thus, it is clear that many factors and decisions made by various individuals, groups, and agencies influence land use changes.

4.4 Current Land Use Pattern

The majority of land within the City of Crystal Falls is developed as residential, commercial, or other uses, with a relatively small proportion of the community remaining undeveloped. The city contains a mix of uses within its approximately 1,900 acres, as well as some areas which are currently vacant. The effects of the mining era can be seen in the city, with the remnants of structures and pits in some areas. The general trend in recent years has been towards development along the U.S. 2 corridor on the west side of the city.

Commercial Uses: The commercial areas of the city are primarily concentrated along the main transportation routes. The traditional "downtown" area is along Superior Avenue (M-69) west of the Paint River, and contains public uses such as City Hall, post office, etc., as well as commercial uses. These public uses help attract people to the downtown area. Most of the structures in the downtown are relatively old, and parking is somewhat limited. Some of the buildings are historically and architecturally significant, such as City Hall and the Iron County Courthouse. Commercial uses are also located along Crystal Avenue (U.S. 2 and 41), although most are in Crystal Falls Township. The commercial uses in the outlying areas of the city tend to be those which require larger lots for parking and/or display of merchandise, or in some cases are highly dependent on drive-by traffic and so desire a highway location. While many communities have seen the construction of new or upgraded highways result in bypassing of the traditional business district, in Crystal Falls the main thoroughfare continues to bring visitors directly through the downtown.

Residential Uses: East of the Paint River, there is a residential area north of M-69. On the west side of the river, residential neighborhoods lie behind the central business district along Superior and Crystal avenues, and on both sides of U.S. 141 and 2 in the southern part of the city. The vast majority of the residential structures are single-family homes on a residential lot. As

reflected in the Census data, the residential neighborhoods in the City of Crystal Falls are generally made up of older housing. In the areas which were first platted in the early days of the city, lot sizes are generally very small by today's standards. The small lots are often less desirable to those people who wish to build a larger home, since two or more lots may be required to provide the necessary space. For existing housing, the small lot size can limit the ability to add on to the structure, or to provide garages or other outbuildings. In contrast to residential areas along lakes or in the rural parts of nearby townships, relatively few seasonal homes are found in the city. Mobile homes are generally not found within the city, the result of a zoning ordinance that effectively prohibits their presence. Chapter 6, Housing, provides further information on the type, age, and occupancy status of housing in the city.

Industrial Uses: The City of Crystal Falls has established an industrial park on the city's west side. The park has excellent access to the major highway corridors, as it is bounded by U.S. 2 and 141 on the south and by U.S. 141 on the west. Utilities are readily available, and several firms have located in or committed to the park. The park has been designated as a Renaissance Zone by the Michigan Economic Development

Corporation, which results in significant tax savings for property owners in the park. Specifically, all state taxes, such as the real and personal property tax, are waived for properties inside the Renaissance Zone, for a period of 10 years after the establishment of the Zone. This is intended to serve as a powerful incentive to lure new and expanding firms to the area, as well as assist local residents who start a business.

Public Uses: Public uses include publicly-owned facilities as well as those privately-owned facilities that are generally open to the public. These uses are located throughout the city. Chapter 5, Community Facilities and Services, discusses the type and location of public buildings and other facilities in the city. These uses include governmental buildings such as City Hall, schools, and public lands such as parks.

4.5 Contaminated Sites

The Michigan Department of Environmental Quality is required by the Michigan Natural Resources and Environmental Protection Act to identify, evaluate and rank all sites of environmental contamination in Michigan. Environmental contamination means the release of a hazardous substance, or the potential release of a discarded hazardous substance, in a quantity which is or may become injurious to the environment, or to the public health, safety or welfare.

In those areas where hazardous substances have been identified, future development is restricted. An environmentally contaminated site can potentially affect a much larger area if contaminants enter groundwater sources. Moreover, surface waters used for recreational pursuits such as swimming and fishing are potentially subject to contamination. Table 4-1 shows the sites currently listed in the City of Crystal Falls, and their status.

Site Name	SAM Score	Location	Contaminant(s)	Status
City of Crystal Falls Dump	16	NW ¼, NE ¼, S21, T43N, R32W	Domestic waste	No Action Taken
Crystal Falls Township Disposal	10	NE ¼, NE ¼, S19, T43N, R32W	Domestic waste	No Action Taken
122 N. Runkle Shore Road	NA	City of Crystal Falls	Petroleum spill	Partial cleanup, site not closed out
Lakehead Pipeline Leak – MP1286	NA	Crystal Falls Township	Natural Gas Leak	Groundwater contamination being monitored

Source: Michigan Department of Environmental Quality, 9/2003

NOTES TO TABLE 4-1:

Site Name: The site name is assigned for identification purposes only and is not necessarily a party responsible for contamination.

SAM Score: A numerical risk assessment model, known as the Site Assessment Model, is used to rank all Act 307 sites, except leaking underground storage tanks. The SAM has a scale of 0 to 48 points, with 48 points representing the highest level of contamination. Therefore, a site with a SAM score of 25 would present more risk to the environment, health, safety or welfare than a site with a score of 20.

Status: Sites are placed in one of seven categories, depending on the action, if any, which has been taken towards cleanup.

Environmental and public health concerns surrounding leaking underground storage tanks have led to more stringent requirements with installation and monitoring. Many fuel tanks that complied with earlier standards have degraded and leak contents into the surrounding soil. The Michigan Department of Environmental Quality maintains a list of Leaking Underground Storage Tank (LUST) sites in Michigan, and cleanup of these sites is being actively pursued by the MDEQ.

From a land use standpoint, the presence of environmental contamination represents a constraint on future development, as well as a threat to human health and safety. In addition to affecting a specific site, some contaminants can enter groundwater and cause more widespread problems, such as water well contamination. It is desirable to identify and remediate contaminated sites in a timely manner, in order that potential hazards and land use constraints be removed.

4.6 City Boundaries

The corporate limits of the City of Crystal Falls define a very irregular outline of the community, particularly on the western and southern boundaries. Along U.S. 2 and 141 west, for example, the areas south of the highway are located in Crystal Falls Township. North of the highway, the area between Tobin Street and Krempasky Road (about ¼ mile), north to just north of Harrison

Avenue, is in the Township. West of Krempasky Road to where U.S. 141 splits off from U.S. 2 and heads north (also about ¼ mile), the city boundary generally runs along the northern boundary of the lots fronting on the highway. The southern boundary of the city encompasses an area extending about ¼ mile south along the east side of U.S. 2, as well as a long, narrow area extending along the western edge of the Paint River for about a mile. Due to this discontinuous boundary along U.S. 2 and 141, municipal services such as water and sewer lines, electrical lines, etc., must be routed through portions of Crystal Falls Township. In these areas, service is provided to businesses and residences in the Township.

5.0 COMMUNITY FACILITIES AND SERVICES

5.1 Introduction

Services such as public safety, water, wastewater systems, street, park operations, and solid waste disposal are essential to a community's homes and businesses. Facilities, such as government buildings, schools, hospitals, parks, etc. are the physical structures required for these services. The condition, efficiency and capacity of services and facilities are indicators of community's governance and administration.

Some of these facilities and services are provided directly by the City of Crystal Falls, sometimes under joint arrangements with other units of government or by contract. Other facilities and services are provided by other local, county, state or federal agencies, or by the private sector.

As part of the comprehensive planning effort, these services and facilities are described and evaluated as to their present condition and adequacy to meet present and future needs of the City.

5.2 City Facilities and Services

City Hall

The Crystal Falls City Hall is located at 401 Superior Avenue. Built in 1914, the City Hall houses most City offices, including the City Manager, City Clerk/Treasurer, City Council chambers, police and fire departments, electric department, and public works department. Shop and garage facilities for the fire, electric, and public departments are also located at City Hall, as is a mechanic shop and garage. The entrance on the west side of City Hall is handicapped accessible, and accessible restrooms are located on all three floors of the building. An elevator was installed in 1994, at the same time as the accessible restrooms. As a result of the move of the library to a separate facility, the former library is now being used as the Council chambers and a map room. The current map room will be converted into a new office for the City Manager. The complex is adequate for current needs, but additional storage space for records and similar items is needed.

Other City Offices/buildings

The Cemetery office is located at the cemetery. City-owned buildings at the Crystal View Golf Course include a shop/garage, clubhouse, and two buildings for storage of golf carts. A caretaker's cabin, bathrooms, wigwam, and changing house are located at Runkle Lake Park, and there is a warming house at the municipal ski hill. The electric and public works department store equipment and materials at a warehouse at the former Bristol Mine site.

Law Enforcement

The Crystal Falls Police Department is housed at City Hall and provides 24-hour law enforcement protection to the City. The department is staffed by five full-time officers, a chief, sergeant and three patrol officers. The Crystal Falls Police Department assists the Iron County Sheriff's Department by providing backup as needed for incidents outside the City, and the Sheriff's Department provides backup in the City. The Iron County Sheriff's Department also provides County-wide animal control services, marine, ORV and snowmobile patrol, and supports the volunteer search and rescue team. The Sheriff's department office and 50-bed correctional facility are housed at the Iron County Courthouse Complex in Crystal Falls. The animal shelter is located in the City of Iron River. The snowmobile patrol is provided in cooperation with the Michigan Department of Natural Resources and the City of Crystal Falls.

Fire Protection

The Crystal Falls Fire Authority was formed in 1990 and provides fire protection for the City of Crystal Falls, Crystal Falls and Mansfield townships, and parts of Mastodon and Hematite townships. Four full-time drivers and 23 volunteer firefighters staff the authority, offices and equipment are located in Crystal Falls at the City Hall complex. In addition to responding to calls within the area served by the authority, response is provided through mutual aid to other departments as needed.

Other Emergency Services

Ambulance service is provided by Marquette General Hospital. The primary base for this service is near the Iron River Community Hospital in Iron River. An ambulance garage is also located in Crystal Falls Township at the U.S. 2/U.S. 141 intersection, with volunteers on call during the week. On weekends, the ambulance is dispatched from the Iron River garage.

Iron County is served by an enhanced 911 system, wherein a single call to 911 serves to dispatch the appropriate emergency services. The dispatch center is located at the Iron County Sheriff's Department, and is staffed 24 hours per day, seven days a week.

Municipal Water and Wastewater Systems

The City of Crystal Falls provides municipal water and wastewater treatment services to City residents as well as some residents of Crystal Falls Township.

The municipal water system obtains water from wells located in the northeastern corner of the City. Water is pumped to the filtration plant near the power plant at the northern edge of the City, then to the 200,000-gallon elevated storage tank located behind the Iron County Courthouse. The tank provides gravity flow to the entire service area for the system. The City is currently undertaking a water system improvement project, and is exploring the development of a new water source on property located west of the City in Crystal Falls Township. This area has been determined to be the best source of water for the system. Water rates have recently been increased in order to build a reserve account to help pay for water system improvements. Funding in the form of a grant and/or loan will be requested from U.S.D.A. Rural Development to combine

with these local funds to accomplish needed improvements.

The wastewater treatment is a lagoon system, constructed in approximately 1968. The system is currently in compliance with state and federal standards. There are areas in the City that are not served by the wastewater system, and these residents must rely on on-site systems such as septic tanks. These areas are generally too low and/or too sparsely populated to justify sewer service.

Separation of storm and sanitary sewers has been underway since 1993-94. The first phase of the project was along Crystal Avenue, followed by a phase two project encompassing the remainder of the City with the exception of Superior Avenue. Superior Avenue sewer separation work is planned to be completed soon, perhaps during the 2004 construction season in conjunction with a planned downtown streetscape project using MDOT funds.

The areas outside of the City limits which are served by City water and sewer are those areas along U.S. 2 west where the irregular corporate limit results in areas under the jurisdiction of the Township being intermingled with the City.

A comparison of wastewater rates with other Upper Peninsula communities is provided in Table 5-1; a comparison of regional water rates follows in Table 5-2.

The rates for the City of Crystal Falls shown in the tables do not reflect the current rates paid by customers, but have not been changed in order to maintain comparability of the figures in the various communities. The current monthly charge for unmetered residential water service is \$25.00 per month for City residents, and \$26.50 per month in those areas of Crystal Falls Township served by the system. Metered services are charged \$25.00 per month for the first 3,740 gallons or 500 cubic feet in the City, and \$26.50 in the Township. Additional water usage is charged at a per-gallon or per-cubic foot rate, depending on the type of meter used. Sewer rates are \$24.00 per month in the City, and \$26.25 in the Township. Additional charges apply for water usage over 5,800 gallons.

TABLE 5-1

Wastewater User Rates, Selected Upper Peninsula Communities, 1999

Community	Population	Fixed Charge	Cost Per 1,000 Gallons	Cost Per 5,000 Gallons	1990 Median Household Income	% of MHI Charged for Wastewater
Crystal Falls Township	8,700	\$ 1.34 (5/8" meter)	\$ 1.10	\$ 5.49	\$ 24,293	0.27
Crystal Falls City	5,280	\$ 0.65 (5/8" meter)	\$ 2.20	\$ 11.00	\$ 24,293	0.27
Crystal Falls City**	3,000	\$ 3.44	\$ 4.00	\$ 23.44	\$ 21,875	-

City of Bessemer	2,272	\$ 14.15	\$ 3.95	\$ 33.90	\$ 15,472	2.63	1998
City of Crystal Falls	1,920	\$ 21.00	-	\$ 21.00	\$ 17,885	1.41	19
City of Escanaba	14,000	\$ 3.28	\$ 1.38	\$ 10.18	\$ 19,982	0.61	19
City of Gladstone ***	4,700	\$ 7.50	\$ 2.10	\$ 18.00	\$ 22,134	0.98	19
City of Ironwood	7,000	\$ 12.91	\$ 4.72	\$ 36.51	\$ 16,857	2.60	19
City of Ishpeming	7,200	\$ 11.69	\$ 2.90	\$ 26.19	\$ 21,199	1.48	1984
City of Manistique	3,874	\$ 5.00	\$ 5.54	\$ 32.70	\$ 17,581	2.23	'9
City of Marquette	20,000	\$ 5.00	\$ 2.86	\$ 19.30	\$ 24,365	0.95	19
City of Menominee	10,000	\$ 22.41	\$ 2.28	\$ 33.81	\$ 20,829	1.95	
City of Munising ****	2,733	\$ 2.00	\$ 6.90	\$ 36.50	\$ 21,010	1.70	19
City of Negaunee	4,740	\$ 6.70	\$ 5.25	\$ 32.95	\$ 23,345	1.69	
City of St. Ignace	2,700	\$ 16.29	\$ 2.63	\$ 29.44	\$ 20,024	1.76	19

Source: Michigan Department of Environmental Quality, 1999 Upper Peninsula Wastewater User Rate Survey; City of Kingsford

* rates effective January 2001

** rates effective October 2000

***collection system upgrades continuing

**** corrected data per city of Munising

TABLE 5-2

Residential Water Rates, Selected Upper Peninsula Communities, 1997

Community	Source & Treatment	Population Served	Residential Services	Billing Cycle	Minimum Per Month	Gallons Per Minimum Rate	Cost/5,000 Gallons/Month	Percent Production Sold
City of Fountain	G	8,500	3,600	B	\$ 11.50 (5/8" meter)	0	\$ 8.67	71%
City of Ironwood	G	6,700	2,291	B	\$ 2.50 (5/8" meter)	0	\$ 5.60 (5/8" meter)	80%
City of Marquette*	GM	3,000	1,463	M	\$ 18.50	4,000	\$ 20.00	49%
City of Manistique	G	2,272	1,295	M	\$ 10.15	100	\$ 17.50	68%
City of Crystal Falls	GCM	1,922	972	M	\$ 7.50	3,740	\$ 12.50	NA
City of Escanaba	SFM	13,659	4,200	M	\$ 4.90	0	\$ 10.50	70%
City of Gladstone	SFM	4,396	1,678	M	\$ 9.21	1,000	\$ 16.05	80%

City of Ironwood	GC	9,000	3,000	M	\$ 6.65	748	\$ 16.03	51%	07/
City of Ishpeming	BGM	7,145	2,492	M	\$ 9.20	2,000	\$ 23.00	56%	12/
City of Marquette	SFM	22,196	4,897	M	\$ 6.73	748	\$ 22.25	72%	07/
City of Menominee	SFM	9,398	3,500	Q	\$ 6.04	748	\$ 14.23	75%	07/
City of Munising	GM	2,783	822	M	\$ 9.46	1,000	\$ 17.30	27%	10/
City of Negaunee	BGM	4,741	1,500	M	\$ 8.00	1,000	\$ 43.20	75%	01/
City of St. Ignace	SFM	2,900	1,100	M	\$ 18.96	1,000	\$ 28.40	53%	01/

Source: Michigan Department of Environmental Quality, August 1999; City of Kingsford

Abbreviations: B = Buys, F = Filters, M = Miscellaneous (fluoride, etc.), C = Chlorinates, G = Groundwater, S = Surface Water

* Rates indicated are as of October 2000

Electric Department

The City of Crystal Falls owns a hydroelectric dam on the Paint River. The dam and associated hydroelectric power plant produce about one megawatt of electricity, which provides approximately one-third of the City's needs. Additional power is purchased from WE Energies, and all power is distributed on City-owned lines. The hydro plant and dam are in good condition, and the City plans to automate the plant over the next year or two. Production of hydroelectric power allows the City to keep electrical rates low, and offer an attractive rate to large users such as industrial concerns.

Cable TV

The City of Crystal Falls owns the cable television system which serves the City and some areas of Crystal Falls Township. The cable system shares utility corridors with the City's electrical system. Twenty-six channels are offered for a cost of \$13.00 per month for City residents and \$13.50 per month for Township customers of the system. HBO can be added for an additional \$8.00 per month. Customers desiring additional channels use satellite dishes, as no other cable system is available within the City.

Solid Waste Disposal and Recycling

Weekly curbside garbage pickup is provided to all City residents and businesses on Monday of each week. The City contracts with Waste Management to provide this service, which is paid for by residents who buy stickers to place on their trash bags. Only trash bearing these stickers, which currently cost \$2.10 each, will be collected by Waste Management crews. Refuse from the City is then hauled to a transfer station about seven miles west of Crystal Falls on U.S. 2. Recycling collection is provided on the last Saturday of each month at a drop-off site on Cloverland drive. Yard waste is picked up in spring and fall by the City, as these items are not picked up by Waste Management.

Cemetery

The City of Crystal Falls maintains a cemetery, known as Evergreen Cemetery, in the eastern part of the City. A variety of sizes of lots are available for purchase. Costs for burials from outside the local area (the City of Crystal Falls, Crystal Falls, Mansfield and Mastodon townships) are higher. The cemetery is of adequate size to provide for the area's needs.

Parks and Recreation

The City of Crystal Falls maintains a five-year Recreation Plan in accordance with Michigan Department of Natural resources guidelines. This plan more fully describes all recreational facilities and programs in the City, and maintains City eligibility for MDNR recreation grant programs. While it is not the purpose of this plan to reiterate the information found in the Recreation Plan, a brief summary of some of the major City-owned recreational facilities is included here.

The Runkle Lake Recreation Complex is located in the eastern portion of the City on the shoreline of Runkle Lake. Facilities include 57 campsites, 17 with water, electric and sewer hookups and the remaining sites with water and electric hookups only. Restrooms and showers are available. Softball and Little League fields, tennis, basketball and volleyball courts, horseshoe pits, a playground and picnic area, guarded swimming beach, and a public boat launch and fishing pier are also located at the park.

The Crystal View Golf Course is a nine-hole course located at 602 Wagner Street on the City's east side. A clubhouse, concessions, and golf cart rentals are available, and membership costs are lower for City residents. The recently-completed Riverwalk connects Lincoln Park along M-69 at the Paint River to the golf course, offering a scenic boardwalk and pathway along the river. The Crystella Ski Hill, located in the southern portion of the City, offers two rope tows, a lighted hill, lodge/warming building, and an ice skating rink.

The Crystal Falls Contemporary Center offers youth recreation and classes, as well as arts and cultural activities for the entire community. The Contemporary Center is located in the downtown area at 200 Superior Avenue. The Crystal Falls Theater is a renovated movie theater, built in 1927. Restoration began in 1988, and the renovated facility opened in 1991 following extensive volunteer effort. The theater seats over 500, and is used for concerts, plays, and other performances. The Harbour House Museum is located in the former residence of the Harbour family, built in 1900, and is open from Memorial Day through Labor Day. All three of these facilities are housed in City-owned buildings, are carried on the City's insurance policy, and receive some funding from the City. Each facility is operated by a board, which does fundraising and charges fees for events and services to help cover operating costs.

5.3 Other Facilities and Services

Educational Services and Facilities

The Forest Park School District provides education for students in grades kindergarten through 12 in the City of Crystal Falls as well as in Crystal Falls, Hematite, Mansfield and Mastodon townships. Both the elementary and high schools are located in the City of Crystal Falls, at 801 Forest Parkway. The high school was constructed in 1970, and the elementary school in 1998. As with many districts in the Upper Peninsula, declining enrollment has resulted in decreased funding for the local school district. In 1998 the total enrollment in the Forest Park Schools was 732 students in grades K-12. The decrease in enrollment was relatively small in 1999 (729) and 2000 (723). In 2001 the student count was 691, and for the 2002-03 school year 660 students were enrolled.

As enrollment declines, the amount of revenue received from the state also declines, as the state foundation grant is awarded on a per-pupil basis. When state aid declines, districts often resort to taking money from the fund balance to continue programs and maintain facilities. Such appears to have been the case in the Forest Park School District, as reserves dropped from 30.5 percent of spending in 1998 to 0.3 percent of spending in 2001, according to the Standard and Poors School Evaluation Services. While this decline in enrollment is not a result of City policy, nor is it

directly affected by City actions, it is reflective of the general aging of the population. The population decline in the City is negated by population gains in Crystal Falls and Mastodon townships, with the population of the district declining by only eight people between 1990 and 2000. It is critical to the City that the local school system remains financially solvent and continues to offer a high quality education to local students. School systems are critical in attracting new residents to an area, especially families with children, and local schools foster community spirit and pride.

Local residents desiring to continue their education beyond high school must travel from the community in order to do so. Several community colleges and universities serve residents of the Upper Peninsula, with the closest located more than an hour's drive away. Some classes are offered in the Iron Mountain/Kingsford area through Bay College and Northern Michigan University, but course offering are limited. Post-secondary educational facilities within the region and approximate distances from Crystal Falls are shown in Table 5-3.

Name of Institution	Location	Distance (mi.) from Crystal Falls
Bay de Noc Community College	Escanaba	82
Northern Michigan University	Marquette	72
Michigan Technological University	Houghton	85
Finlandia University (formerly Suomi College)	Hancock	90

Gogebic Community College	Ironwood	98
University of Wisconsin-Green Bay	Green Bay	130
University of Wisconsin-Marinette	Marinette	105
Northland Baptist Bible College	Dunbar, WI	**

Health Care

A variety of health care professionals, including doctors, dentists, home health care, and other specialties, serve residents of Crystal Falls. The Iron County Community Hospital, located in Iron River, provides in- and out-patient services; Dickinson County Memorial Hospital in Iron Mountain, about 30 miles away, is also close enough to provide services on a routine basis. Marquette General Hospital in Marquette provides regional health care services, with access to specialists which might not be available locally.

Long-term skilled nursing care is provided at the Iron County Medical Care Facility about two miles west of Crystal Falls. The Medical Care Facility has services for Alzheimer's patients and those suffering from dementia. The Crystal Manor in Crystal Falls currently also provides long-term residential care, but residents of Crystal Manor are scheduled to move to an expanded iron County medical Care facility in 2004. At that time the Crystal Manor building will be available for re-use. This historic former hotel has nearly 28,000 square feet available on five floors including the attic and basement. Marketing efforts for this structure are currently underway.

The Iron County Medical Care Facility also provides the Victorian Heights Assisted Living facility, with 13 studio and 12 1-bedroom units. Assisted living offers residents the opportunity to live independently with maintenance, most utilities, light housekeeping and other services included in the monthly cost. While some personal care is available, assisted living is designed for those still able to live on their own, rather than requiring assistance with daily activities. Meals are available, although each unit has kitchen facilities and residents may prepare their own meals. Assisted living is a relatively recent phenomenon, and may become more commonplace as the population ages. This level of care is not currently licensed or regulated by the State of Michigan, beyond normal building codes, food service regulations, etc.

Other Utilities

Natural gas is provided throughout most of the City by DTE Energy, formerly known as Michcon. Availability of natural gas in Iron County is generally limited to the cities and the primary highway corridors.

Local telephone service throughout the City is provided by Ameritech and by Baraga Telephone. A variety of long distance providers also serve the community, and customers can select their own provider based on rates, quality of service, etc.

Dial-up Internet access is available to all telephone customers through various

providers. Baraga Telephone has also installed DSL Internet service throughout much of the City, offering much higher connection speed and freeing up telephone lines for other uses.

Library

The Crystal Falls District Community Library is located at 237 Superior Avenue in Crystal Falls, after having recently moved from City Hall. In addition to its collection of books and magazines, the library offers a copy and fax machine, laminating, interlibrary loan for books not available locally, and six computers with Internet access available for use by library patrons. The library is open Monday-Saturday.

Iron County Courthouse

The historic Iron County Courthouse is located in Crystal Falls, at the top of the hill overlooking the Paint River. Built in 1890, the Courthouse was designed by architect J. C. Clancy and cost about \$40,000 to construct. The clock tower and bell were added later. The courthouse and associated buildings house Iron County offices, and the Courthouse is currently undergoing a renovation process designed to preserve the historic structure. The location of the Courthouse in Crystal Falls draws county residents to the community to conduct business, and the unique structure is an attractive feature of the community.

Elderly Services

Nutrition, social and information programs are provided through centers operated by the Dickinson-Iron Community Services Agency. Senior centers are maintained in several locations in Iron County, including the Crystal Falls location at 601 Marquette Avenue. The Center is open Monday through Friday and Sunday; hours of operation vary depending on the day of the week and the programs offered.

6.0 HOUSING

6.1 Introduction

Housing is one of the key factors to consider when planning for a community's future. The location and type of housing help to determine where public infrastructure must be located and public services provided, while at the same time the location of new housing can be determined in part by the availability of such infrastructure and services. Housing characteristics also reveal information about a community's economic and social condition and history.

The cost of housing and the type of housing offered are typically determined by market factors. Outside of operating a housing authority or in some cases serving as developers of residential property, most local units of government do not become directly involved in the provision of housing. However, through zoning and other land use controls, the provision of infrastructure and services, and efforts to attract new residents to a community, local governments can have a significant effect on the

housing in an area.

National statistics show that home ownership is at an all-time high, encouraged by the current low mortgage interest rates. At the same time, the number of households renting is growing nationwide. While personal income is a strong factor in many families' decisions regarding renting or purchasing a home, other considerations make renting a preferred choice for some households.

Neighborhood conditions reflect past and current choices. Well maintained structures are indicative of healthy neighborhoods that residents find worthy of investment. In a sense, neighborhoods within a community compete with one another and, as such, represent products that people buy.

The information contained in this chapter reflects the most recent housing data available. Age, type and occupancy related to existing housing are included for analysis. This information will help City officials assess housing needs and determine appropriate measures to be undertaken in addressing those needs.

6.2 Housing Characteristics

Trends

The Census Bureau recorded a total of 922 housing units the City of Crystal Falls in 1990, and 913 housing units in 2000. Between 1990 and 2000, the number of housing units decreased by nine units or 0.1 percent.

In the 1990s, the total number of housing units in Iron County decreased from 9,039 in 1990 to 8,772 in 2000, a decrease of 3.0 percent. In Crystal Falls Township, however, the total number of housing units increased from 1,169 in 1990 to 1,198 in 2000, an increase of 2.5 percent. In the City of Iron River, the number of housing units decreased 10.5 percent, from 1,107 in 1990 to 991 in 2000. The decrease in the number of housing units locally was occurring at the same time that the housing stock statewide was growing at a rate of 10 percent between 1990 and 2000.

While the decrease in the number of housing units in the City and County were unusual, the trend of stronger growth in housing stock in the surrounding unincorporated areas is not. Most urban areas, large and small, have seen new housing developed at a greater rate in the surrounding townships. This trend will be explored further later in this chapter, using building permit data as a measure of housing development in the area.

Housing unit totals as recorded in official census data for the years 1980, 1990 and 2000 are presented in Table 6-1.

TABLE 6-1**Total Housing Units, Selected Areas, 1990-2000**

Unit of Government	1990	2000	Percent Change, 1990-2000
City of Crystal Falls	922	913	-0.1
Crystal Falls Township	1,169	1,207	2.5
City of Iron River	1,107	988	-10.5
Iron County	9,039	8,772	-3.0
State of Michigan	3,847,926	4,234,279	10.0

Source: U.S. Bureau of the Census, 2000 Census of Population and Housing,

SF-3, H3, and 1990 Census of Population and Housing, STF-3, H3.

It should be noted that the data presented in Table 1 is derived from the 100 percent count, or "short form" of the Census. Much of the housing information presented in this chapter is derived from the "long form," received by one in six households, and is subject to sampling error. The numbers have not been corrected for small units, and where sampling error causes differences in totals, the tables will be footnoted.

Occupancy and Tenure

According to the 2000 Census, 87.1 percent of the City's housing units were occupied, with the remaining 12.9 percent listed as vacant. Nearly one-third of the vacant units, however, were shown as being for seasonal, recreational or occasional use, bringing the vacancy rate for year-round housing to just over nine percent. County-wide, over a third of housing units were vacant, but the vast majority of these were for seasonal use, resulting in a year-round vacancy rate of under six percent, nearly equal to the statewide average of 5.4 percent. It would be expected that a much higher proportion of seasonal residences would be found outside the City, and the figures for Crystal Falls Township bear that out, with about 400 housing units held for seasonal or related use. When the seasonal units are factored out, however, the Township still showed growth in the number of housing units, as opposed to a decrease in the City between 1990 and 2000.

Nearly 80 percent of Crystal Falls' occupied housing units were occupied by their owners, with 21.5 percent occupied by renters. This compares with 82.4 percent owner-occupancy in Iron County. Statewide, 73.8 percent of occupied housing units were owner-occupied. The proportion of renter-occupied housing is typically higher

in cities than in rural townships, due to the presence of infrastructure to support multi-family developments. The proximity to shopping, health care and other services is also a factor in the location of multi-family housing.

Housing Units	City of Crystal Falls		Iron County		State of Michigan	
	Number	Percent	Number	Percent	Number	Percent
Total Units	913	100.0	8,772	100.0	4,234,279	100.0
Occupied	795	87.1	5,748	65.5	3,785,661	89.4
Owner	625	78.5	4,737	82.4	2,793,124	73.8
Renter	171	21.5	1,011	17.6	992,537	26.2
Vacant	118	12.9	3,024	34.5	448,618	10.6
For seasonal, recreational or occasional use	32	3.5	2,377	27.1	233,922	5.5

Source: U.S. Bureau of the Census, Profile of General Demographic Characteristics, Table DP-1, 2000

In 1990, according to the Census, householders in owner-occupied housing tended to be older than householders in rental housing. In fact, householders 75 years of age and older were the largest single age group of householders in Crystal Falls in 1990 and 2000, according to the Census, as shown in Table 6-2. Over 40 percent of the householders in owner-occupied housing were 65 years of age or older in 2000. In renter-occupied housing, a higher proportion of householders were 34 years old or younger; however, householders 75 years old and older were still the largest group. In 2000, over 40 percent of householders in renter-occupied housing were over 65.

As mortality becomes a factor for these older households, questions about the future of this housing stock may arise. If these homes are passed on to younger family members, these family members may already have their own homes, or may want a newer, larger home. In either case, if the heirs do not need or want the house, it will likely be placed on the market, and/or be converted to rental property. Since many of these homes are likely older homes, given the number of homes 50 years old and older, the City may see a relative "glut" of older housing on the market in years to come. The number of rental properties may also increase, as homes are offered for rent either as single-family homes or divided into apartments.

TABLE 6-3

Tenure by Age of Householder, City of Crystal Falls, 1990 and 2000*

Age of Householder	Owner-occupied Units				Renter-occupied Units			
	1990		2000		1990		2000	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
15-24 years	4	0.6	14	2.2	19	9.3	18	10.5
25-34 years	53	8.6	41	6.6	47	23.6	25	14.6
35-44 years	99	16.0	113	18.1	34	17.1	29	17.0
45-54 years	67	10.9	117	18.8	12	6.0	16	9.4
55-64 years	99	16.0	75	12.0	7	3.5	14	8.2
65-74 years	140	22.7	111	17.8	24	12.1	12	7.0
75 years and over	155	25.1	153	24.5	56	28.1	57	33.3
Total		100.0		.0		100.0		100.0

* Data based on sample and subject to sampling error

Source: U.S. Bureau of the Census, Profile of General Demographic Characteristics, Table QT-H2, 2000 and 1990 Census of Population and Housing, STF 3A.

Units in Structure

The vast majority of Crystal Falls' housing stock, according to the 2000 Census, was single-family detached homes. Eighty-six percent of the City's housing units were of this type, compared to 86.4 percent Countywide and 70.6 percent for the State of Michigan. Following single-family detached units, two-family units (duplexes) were next most common, at 5.2 percent of the City's units. Few mobile homes were shown in the City, compared to the County as a whole, while units in structures with 10 or more units made up a higher proportion than in the County as a whole. Crystal Falls Township showed a high proportion of mobile homes. The City's current zoning ordinance places significant restrictions on mobile homes in the City, which accounts for the low number of such dwellings in the City.

TABLE 6-4

Units in Structure by Percentage, Selected Areas, 2000*

Unit Type	City of Crystal Falls	Crystal Falls Township	City of Iron River	Iron County	State of Michigan
1, detached	86.0	90.7	76.4	86.4	70.6
1, attached	0.9	0.5	0.4	0.4	3.9
2	5.2	0.0	13.7	3.0	3.5
3 or 4	1.7	0.2	3.3	1.0	2.8
5 to 9	1.1	0.0	0.4**	0.6	4.0
10 to 19	0.2**	0.0	0.8**	0.3	3.4
20 or more	4.3	0.0	2.5	1.7	5.1
Mobile Home	0.6	8.3	2.4	6.4	6.5
Other	0.0	0.4	0.0	0.3	0.2
Total	100.0	100.0	100.0	100.0	100.0

* Data based on sample and subject to sampling error

** Fewer units shown than in type of structure; sampling error

Source: U.S. Bureau of the Census, Profile of General Demographic Characteristics, Table DP-4, 2000

Age of Housing

According to the 2000 Census, over half the housing units in Crystal Falls were built prior to 1940, and another 12 percent were built between 1940 and 1949. This means that nearly 65 percent of the City's housing stock was 50 years old or older in 2000. The median age of housing units, according to the Census, was prior to 1940. While older housing is not necessarily inadequate or of poorer quality than newer structures, it is more prone to deterioration if not adequately maintained. Since a relatively large number of householders are over the age of 65, when maintenance also may become more difficult, much of the City's housing stock may be vulnerable. Older housing units often lack the amenities desired by more affluent, younger households, such as multiple bathrooms, large bedrooms, family rooms and large garages. These older units often have narrow doorways, steep stairs, and other features which make them difficult for older residents to enjoy, and increased maintenance demands may also make these homes less desirable to an aging population.

The high proportion of older housing in Crystal Falls reflects the City's heritage as one

of the earliest communities in the area. Countywide, 44.5 percent of the housing stock is 50 years or older, and the median year built for housing units was 1954. In Crystal Falls Township, and the median year built was 1963, 35.8 percent of the housing units are 50 years old or more. The City of Iron River, on the other hand, has an even higher proportion of older housing units than Crystal Falls, with 70.8 percent built prior to 1949. Table 6-5 illustrates the relative proportion of housing units by year built.

TABLE 6-5								
Housing Units by Year Structure Built, Selected Areas, 2000*								
Unit of Government	% 1990 to 2000	% 1980 to 1989	% 1970 to 1979	% 1960 to 1969	% 1950 to 1959	% 1940 to 1949	% 1939 or earlier	Total
City of Crystal Falls	3.8	4.0	12.7	4.0	11.0	12.0	52.6	100.0
Crystal Falls Township	11.9	12.2	14.9	7.7	11.5	8.4	27.4	100.0
City of Iron River	2.4	1.4	7.6	4.8	13.0	19.6	51.2	100.0
Iron County	12.1	8.9	14.1	7.3	13.1	12.2	32.3	100.0
State of Michigan	14.7	10.5	17.1	14.2	16.7	9.8	16.9	100.0

* Data based on sample and subject to sampling error

Source: U.S. Bureau of the Census, Profile of General Demographic Characteristics, Table DP-4, 2000

Household Type and Relationship

Information on household type and relationship was presented in Chapter 2 (see Table 2-7). This information shows that the number of Family households, especially married-couple families, has decreased over the past decade. At the same time, the number of non-family households has increased. Over 20 percent of the City’s households in 2000 consisted of an elderly (65 years of age or older) person living alone.

The number of people living in a household, as well as the age and relationship of those people, all influence the type of housing needed in a community. The general trend across the United States in recent years has been to build larger and larger homes, often with multiple levels and on large lots. At the same time, the population is aging and households are getting smaller.

Household Size

TABLE 6-6 Persons Per Household, Selected Areas, 1990-2000		
Area	Persons Per Household	
	1990	2000
City of Crystal Falls	2.24	2.13
Crystal Falls Township	2.31	2.18
City of Iron River	2.10	2.05
Iron County	2.27	2.19
State of Michigan	2.66	2.56

The number of persons in a household has been decreasing in this country over the past several decades, and the City of Crystal Falls is no exception, as shown in Table 6-6. The average household in the City now contains slightly more than two people. Several factors contribute to this trend, including families having fewer children, an increase in the number of single parent families, and increasing numbers of elderly residents living alone and staying in their own homes.

Source: U.S. Bureau of the Census, Profile of General

Demographic Characteristics: 2000, DP-1 and 1990, DP-1

Housing Values and Rents

In 2000 the Census reported that the median housing value in the City of Crystal Falls was \$46,500. This figure was close to the County-wide median value of \$47,500, but was much lower than the median value of \$68,300 reported for Crystal Falls Township. These comparisons are presented in Table 6-7, which also compares the median gross rent as reported by the 2000 Census. The median housing value was much lower than the statewide value of \$115,600.

TABLE 6-7 Median Housing Values and Rents, Selected Areas, 2000		
Area	Median Housing Value	Median Gross Rent
City of Crystal Falls	\$46,500	\$341
Crystal Falls Township	68,300	353
City of Iron River	43,100	345

Iron County	47,500	346
State of Michigan	115,600	546

Gross rent refers to the total cost of rent plus basic utilities. This is differentiated from contract rent, which is used elsewhere in the Census and represents only the

actual cash rent paid or (in the case of vacant units) the rent asked for a unit. In the City of Crystal Falls the median gross rent was \$341, lower than the County median and significantly below the state median of \$546.

Source: U.S. Bureau of the Census, 2000, SF-3

Gross rent refers to the total cost of rent plus basic utilities. This is differentiated from contract rent, which is used elsewhere in the Census and represents only the actual cash rent paid or (in the case of vacant units) the rent asked for a unit. In the City of Crystal Falls the median gross rent was \$341, lower than the County median and significantly below the state median of \$546.

Source: U.S. Bureau of the Census, 2000, SF-3

It should be noted that the information on housing values and rents is based upon residents' answers to questions on the Census form, not from landlords or records of real estate transactions. Some residents who have not been involved in buying or selling property in many

years may tend to underestimate the value of their home, while others may overestimate. In the case of contract rent, utilities or other costs may be included in some instances but not in others. Since these errors tend to occur throughout all communities, however, there is still value in comparing the data across several areas.

6.3 Financial Characteristics

As discussed in Chapter 3, median incomes in local areas are significantly lower than statewide averages. While this can be offset somewhat by lower housing costs locally, the ability of local households to afford housing is impacted by these lower incomes.

A common method used to gauge the affordability of a community's housing stock is the percentage of income spent on housing related expenses. A general rule of thumb is that housing costs (mortgage, taxes, etc.) should consume no more than 25 to 30

percent of gross household income. Although the census data is limited, Tables 6-13 and 6-14 show higher percentages of income directed to the cost of housing from households with lower incomes. For example, among those households with the lowest income (under \$10,000), 68 percent of renters and 73 percent of homeowners spent 30 percent or more of their income for housing costs. Among those households with incomes from \$10,000 to \$19,999, 37 percent of renters and 30 percent of homeowners spent 30 percent or more on housing. Renter households with annual incomes over \$20,000 all indicated they spent less than 30 percent of their income for housing, and very few homeowners with incomes over \$20,000 spent 30 percent or more on housing. Overall, about 17 percent of The City's households spent more than 30 percent of their income for housing costs, and this amount was disproportionately skewed towards the lower income groups. It can also be seen, in examining Tables 6-12 and 6-13 that the incomes of home-owning households tend to be more evenly distributed in the higher income groups, while renter households, at least in the City of Crystal Falls, are generally in the lower income brackets.

TABLE 6-8

Selected Monthly Gross Rent as a Percentage of Household Income, City of Crystal Falls, 1999

Household Income	< 20%	20 - 24%	25 - 29%	30 - 34%	> 34%	Total
< \$10,000	3	4	11	11	27	56
\$10,000 to \$19,999	9	6	14	4	13	46
\$20,000 to \$34,999	29	7	3	0	0	39
\$35,000 to \$49,999	13	0	0	0	0	13
\$50,000 or more	7	0	0	0	0	7
Total	61	17	28	15	40	161

Source: U.S. Bureau of the Census, Profile of General Demographic Characteristics: 2000, Table H-97

TABLE 6-9

Selected Monthly Owner Cost as a Percentage of Household Income, City of Crystal Falls, 1999

Household Income	< 20%	20 - 24%	25 - 29%	30 - 34%	> 34%	Total
< \$10,000	0	4	5	4	20	33
\$10,000 to \$19,999	47	14	10	9	22	102

\$20,000 to \$34,999	143	31	16	4	6	200
\$35,000 to \$49,999	118	5	10	2	2	137
\$50,000 or more	95	2	2	0	0	99
Total	403	56	43	19	50	571

6.4 Home Heating Fuel

Natural gas is by far the most common means of heating the City's housing, according to the 2000 Census. Over 90 percent of the City's housing units were heated in this manner, reflecting the availability of gas throughout the City as well as its cost efficiency. Electricity, fuel oil and bottled gas followed in popularity. Countywide, natural gas was used in less than 60 percent of occupied households, reflecting the fact that this fuel is primarily available in relatively urban areas. Bottled gas, fuel oil, and wood were more commonly used in the County as a whole than in the City or in the state overall, again reflecting the rural nature of the area and the availability of these fuels.

Source	City of Crystal Falls		Iron County		State of Michigan	
	Number	Percent	Number	Percent	Number	Percent
Utility Gas	723	90.1	3,340	58.1	2,961,242	78.2
Bottled, Tank or LP Gas	21	2.6	1,167	20.3	357,502	9.4
Electricity	19	2.4	204	3.5	251,208	6.6
Fuel Oil, Kerosene, etc.	23	2.9	538	9.4	130,933	3.5
Coal or Coke	0	0.0	0	0.0	659	--
Wood	14	1.7	487	8.5	54,608	1.4
Solar Energy	0	0.0	0	--	641	--
Other Fuel	2	0.2	12	0.2	18,413	0.5
No Fuel	0	0.0	0	0.0	10,455	0.3
Total Units	802	100.0	5,748	100.0	3,785,661	100.0

6.5 Building Permits

Before beginning construction of a new residential or commercial building, placement of a mobile home, or remodeling or alteration of an existing structure, a building permit is required. These permits are obtained from Iron County, which keeps a record of the number of permits issued. This information is valuable in assessing where building activity is taking place in the County, and provides insight into development patterns.

Table 6-11 summarizes building permit information for the local units in Iron County over the past five years. This information shows that relatively few building permits for new residential homes have been issued in recent years. Of the 52 permits for new residences in Iron County in 2001, and 55 in 2002, only one each year was issued in Crystal Falls. Only five permits for new residential homes were issued in the past five years in the City. By contrast, Crystal Falls Township alone accounted for just over 22 percent of new residential permits over the past five years, with a total of 57 permits for new construction.

TABLE 6-11

Residential Building Permits, Iron County, 1998-2002

Area	1998			1999			2000			2001		
	New	MH	Remodel	New	MH	Remodel	New	MH	Remodel	New	MH	Remo
City of Crystal Falls	2	0	12	1	0	5	0	0	10	1	0	
Bates Township	10	1	12	5	2	8	8	1	16	6	2	
City of Caspian	0	1	5	0	0	2	0	0	4	2	0	
Crystal Falls Township	12	1	23	14	2	14	10	4	18	9	2	
Hematite Township	1	0	0	3	0	2	2	0	1	0	0	
Iron River Township	13	9	11	9	1	12	11	5	10	8	2	
City of Iron River	3	0	10	1	1	4	1	0	9	2	1	
Mansfield Township	0	0	4	0	2	1	3	2	4	0	2	

Mastodon Township	3	2	7	4	8	6	4	0	7	12	2	12
City of Stambaugh *	0	1	8	1	0	6	0	0	1	-	-	-
Stambaugh Township	10	2	20	6	1	21	10	4	5	11	3	14
Alpha	0	0	0	0	1	3	0	1	2	1	0	1
Iron County Total										52	14	100

MH - Mobile Home

New - New Residential Construction

Remodel - Residential Remodeling/Alteration

* City of Stambaugh permits combined with City of Iron River in 2001 and 2002

County-wide, 254 permits for new homes were issued between 1998 and 2002. Of these, nearly 75 percent were in Crystal Falls, Bates, Iron River and Stambaugh townships. This is further indication of the trend, also discussed elsewhere in this plan, of population growth in the townships adjacent to urban areas. Permits for placement of mobile homes were also much more numerous in these townships. No permits were issued for mobile homes in the City of Crystal Falls, consistent with the current zoning ordinance, which does not permit mobile homes within the City.

Building permits for remodeling are issued at a much higher rates than those for new construction. Remodeling can range from relatively simple projects such as the addition of a deck to extensive remodeling that increases the living area of an existing home. In any case it generally indicates an effort on the part of the homeowner to maintain and improve the residential property. The disparity between remodeling permits is not as great between the cities and townships, although Crystal Falls Township, with a similar population, had 85 remodeling permits issued over the past five years compared to 42 in the City of Crystal Falls.

6.6 Public Housing Development

The Iron County Housing Commission provides subsidized housing in Iron County. Subsidized housing is in the form of Section 8 vouchers or housing directly provided by the Housing Commission. In the case of vouchers, the person holding the voucher finds housing provided by a landlord in the County, and the voucher provides a subsidy for the rental cost. In the City of Crystal Falls, the Housing Commission also owns 14 single-family homes and the Pleasant Valley apartment complex, providing

rental housing directly to residents. The single-family homes are designed to accommodate families, while the Pleasant Valley Apartments are primarily intended for senior citizens. All 43 units in the apartment complex are 1-bedroom units, and non-seniors are accommodated when there is a need and units are available.

6.7 Housing Assistance Programs

Housing rehabilitation, weatherization (insulating, caulking, window replacement, etc.) and home purchasing assistance programs are provided through the Dickinson-Iron Community Service Agency. Applicants must meet established eligibility guidelines to qualify. These programs are utilized by residents of both Iron and Dickinson counties, including residents of the City of Crystal Falls. The programs are funded by the Michigan State Housing Development Authority, and are typically available on the County level rather than in individual communities. These programs offer residents assistance in purchasing and/or rehabilitating homes. In addition to providing residents with safer and more comfortable living conditions, the programs help to maintain the aging housing stock in the area, in situations where homeowners may otherwise be unable to prevent deterioration.

7.0 TRANSPORTATION

7.1 Introduction

An adequate transportation system is necessary to move into, out of, and within a community. This transportation system plays a key role in the development of the local economy, land use patterns, and the relationship of communities to each other.

The location of land-based transportation systems, such as roads and railroads, is heavily influenced by physical barriers like rivers, lakes, swamps and rugged terrain. Therefore, these transportation routes generally were established where physical features offered the least resistance. Conversely, rivers and lakes themselves have proven vital to waterborne commerce, as in the case of the shipping routes on the Great Lakes, or the use of rivers to float logs to sawmills and ports.

This section of the plan presents an inventory of the existing transportation facilities which serve the City of Crystal Falls, and discusses general transportation issues and needs specific to the local area.

7.2 Road System

Of the entire infrastructure which serves the needs of a community, local roads and streets probably draw the most attention from residents, and in some cases from visitors as well. All residents use roads, either as drivers of vehicles or as passengers, or depend on them for the transport of good needed for daily life. Even children too young to drive use roads for recreational activities such as bicycling, rollerblading, etc. Unlike underground infrastructure such as water and sewer lines, which are equally vital to a community, roads are highly visible, and deteriorated roads and bridges are

readily observed by all who travel them

Michigan Act 51 of 1951 requires that all counties, incorporated cities, and villages establish and maintain road systems under their jurisdiction, as distinct from state jurisdiction. Counties, cities and villages receive approximately 61 percent of the funding allocated through Act 51 for local roads. State highways under the jurisdiction of the Michigan Department of Transportation, known as state trunklines, receive the remaining 39 percent.

State Trunkline Highways: The state trunkline system includes state and federal highways that connect communities to other areas within the same county, state and other states. These roadways provide the highest level of traffic mobility for the traveling public. While the state trunkline system carries more than half the total statewide traffic, it makes up only eight percent of total Michigan road miles. State and federal highways are designed by the prefixes "M" and "U.S." respectively.

Three state trunklines serve the City of Crystal Falls. U.S. Highway 2 connects Crystal Falls with St. Ignace to the east and Wisconsin to the west, continuing on west as far as the Pacific coast. U.S. Highway 141 runs concurrently with U.S. Highway 2 as it enters the city from the south, but then continues northward to intersect with M-28 and U.S. 41. U.S. 141 provides connections to Houghton to the north and to Green Bay and points beyond to the south. Finally, M-69 enters the city from the east, forming Superior Avenue until it terminates at the intersection with U.S. 2/141 at South 5th street. M-69 provides the most direct access from Escanaba. This state trunkline network offers good access to more urban areas, although at some distance.

Act 51 requires that MDOT bear all maintenance costs consistent with department standards and specifications for all state highways including those within incorporated communities. In a city the size of Crystal Falls, no cost sharing at the local level is required.

County Road System: County roads are classified as primary and local. Local roads comprise the most miles in the county system, but have the lowest level of traffic. Road funding is based on the mileage of each road system. Roads within the City are not included in the county system; however, city streets often continue outside corporate limits as county roads, providing further access to surrounding areas. There are 269.9 miles of primary roads and 364.0 miles of local roads in Iron County.

Major Street System: A system of major streets in each incorporated city or village is approved by the state highway commission pursuant to P.A. 51. Major streets are selected by the city or village governing body on the basis of greatest general importance to the city or village. Streets may be added or deleted from the system subject to approval of the state highway commissioner.

Local Street System: City or village roads, exclusive of state trunklines, county roads and those included in the major street system, make up the local street system. The process of approval, additions and deletions is the same as with other road system designations.

7.3 Private Roads

While most development takes place in areas already served by public roads and streets, or by new roads added to the public road system, at times developers prefer to retain roads in private ownership. The maintenance of these roads (snow plowing, grading, dust control, drainage ditch maintenance, etc.) is the responsibility of the residents living along these roads, who usually either accomplish these tasks on their own or through a contract agreement with a private entity. County road commissions and municipal street departments generally will not provide any maintenance service to privately owned roads.

The presence of private roads may affect some of the services provided to the residents living along these roads, such as fire protection and emergency services. Access for fire and emergency vehicles on private roads can be difficult, especially if the roads are badly maintained, narrow, and/or inadequately marked and signed. As further development occurs along private roads, the possibility of conflicts between residents living along these roads and the community in which they live is more likely. To remedy these problems in the future, a community can put stipulations in its zoning ordinance or land division ordinance that require private roads serving new residential areas to conform to certain dimensional and maintenance standards. Some communities in Michigan have adopted private road ordinances which stipulate when roads must be deeded to the public, and/or the standards to which private roads must be built. It is also possible to prohibit subdivision and development of property unless the resulting parcels have direct access to public roads.

7.4 National Functional Classification

The National Functional Classification system is a planning tool developed by the Federal Highway Administration and used by federal, state and local transportation agencies. Under this system, streets and roads are classified according to the level of mobility and access to property. Roads that provide the greatest mobility are classified as principal arterials, followed by minor arterials, major collectors, and minor collectors. Local roads provide the greatest access to property, but are typically not designed to provide a high degree of mobility. The placement of roads into these categories is determined by the relationship to traffic patterns, land use, land access needs, and traffic volumes. This federal functional classification system is designed for larger-scale planning, and also determines eligibility for certain types of federal funding for transportation improvements.

Principal Arterial: The main function of a principal arterial road is to move traffic over medium distance quickly, safely, and efficiently. Often the movement is between regions or major economic centers. Superior Avenue (M-69), and U. S. Highways 2 and 141 are all principal arterials.

Minor Arterial: Roads within this classification move traffic over medium distances within a community or region in a moderate to quick manner. They distribute traffic between collector roads and principal arterials.

Collector Roads: A collector road provides access between residential neighborhood and commercial/industrial areas. Its function is to provide a more general service, e.g., area-to-area rather than point-to-point. A collector usually serves medium trip lengths between neighborhoods on moderate to low traffic routes at moderate speeds and distributes traffic between local and arterial roads. Usually, this involves trips from home to places of work, worship, education and where business and commerce are conducted.

Rural Local Roads: The predominant function of roads in this classification is to provide direct access to adjacent land uses. A local road serves as the end for most trips within a community. Local roads include all streets not classified as arterials or collectors.

Local roads should be designed to move traffic from an individual lot to collector streets which in turn serve areas of business, commerce, and employment. Local roads should not be designed or located in such a manner that they would or might be utilized by through traffic. This is an especially important consideration with regard to new development in a community. Care should be taken not to allow development to occur in such a way as local roads become used as collectors, carrying more traffic than the roads or the neighborhoods they serve were intended to handle.

7.5 Financing

Revenues collected from fuel taxes and motor vehicle registration fees are distributed to county road commissions, cities, and villages by formula. This is done through the Michigan Transportation Fund which was established under P.A. 51 of 1951. Road classification, road mileage, and population are factored into the formula. A percentage of the funding is reserved for engineering, snow removal and urban roads.

The Act 51 funding formula takes into consideration population, road mileage, and an MDOT distribution factor. The Act 51 formula has been reviewed by the Legislature in recent years, and while no changes have yet been made, the future will probably bring changes to the funding formula. As long as population remains a factor in the formula, the City will continue to receive decreased funding if the population continues to decline in future decades.

Michigan Transportation Fund: Revenues are distributed to cities, counties and villages from this fund to assist in completing road improvements, as well as snow removal and other maintenance activities.

Michigan Transportation Economic Development Fund: This fund was established in 1987 "to enhance the ability of the state to compete in an international economy, to serve as a catalyst for economic growth of the state, and to improve the quality of life in the state." Investing in highway, road and street projects necessary to support economic expansion is the purpose of the TEDF. The six funding categories of the TEDF are as follows:

Category A - Economic Development Road Projects

Category B - State Trunkline Takeover (no longer funded)

Category C - Urban Congestion Relief

Category D - Secondary All-Season Road System

Category E - Forest Road

Category F - Cities in Rural Counties

Category A funding is awarded on a case-by-case project for appropriate economic development projects. Iron County is not eligible for Category C, leaving Categories D, E and F as other possible sources of funds for transportation projects. The revenue source for the TEDF includes state fees for license plates and driver licenses, except category C and D funds, where 55 percent of the revenue source comes from federal TEA-21 funds.

Other: Federal assistance for state highways is supported mainly through motor fuel taxes. Construction and repair costs associated with state trunkline systems are generated from these taxes. The Intermodal Surface Transportation Efficiency Act of 1991, and its reauthorization as the Transportation Equity Act for the 21st Century (TEA-21), have resulted in allocation changes that have benefited Michigan. Under the concept of "intermodalism", transportation planning is supposed to engender cooperation among the different transportation modes that interconnect at shared hubs, or intermodals.

Ten percent of each state's Surface Transportation Program (STP) funding is set aside for transportation enhancement projects. Enhancement activities are meant to be such things as landscaping, bicycle paths, historic preservation, storm water runoff mitigation and other quality-of-life projects. A formal process of application has been established by the Michigan Department of Transportation to afford local and state jurisdictions an opportunity to pursue this funding.

7.6 Traffic Volume

Despite increasing fuel prices in recent years, the number of automobiles licensed and the number of miles driven throughout the U.S. continues to increase. Nationally, two-car households increased from 10 million in 1960 to 34 million in 1990. In the Crystal Falls area, as in cities all around the country, new residential development is occurring most frequently in the suburbs and beyond. These households rely more on the automobile due to their location away from stores, schools, places of employment, etc. No longer do families live within walking distance of their workplace, church, school, and neighborhood grocery store, as was common in the early 20th Century.

The highway system in Michigan grew rapidly after the advent of the automobile,

but slowed by 1960. After 1960, when there were 110,656 miles of state, county, city and village roads and streets in the state, less than 10,000 miles of new road have been added to the system. Since 1990 only about 2,000 new miles were added, bringing the total road mileage in Michigan to 120,256 miles in 2001. However, while the miles of road have not increased greatly, the number of miles traveled have increased significantly, reflecting our increasing reliance on the automobile. In 1960, highway travel was estimated at 33.1 billion miles per year. By 1980 the figure had nearly doubled, to 61.5 billion. In 2001, it is estimated that vehicle travel stood at 96.6 billion miles, an increase of nearly 200 percent. In order to accommodate this increased traffic, the emphasis has shifted from building new roads to maintaining and increasing the capacity of existing roads.

The number of vehicles registered also reflects the increasing popularity of the automobile. In fiscal year 2001-02, the State of Michigan reports that 7,465 passenger vehicles were registered in Iron County. Iron County contains 10,808 people aged 16 and over, representing the potential number of licensed drivers. Considering that some of these individuals may not drive because of age, physical disabilities, etc., and that many drivers under the age of 18 do not have a vehicle for their own use, this is nearly one vehicle per licensed driver. It is becoming the norm for every household to have more than one vehicle, and many have more than two. In addition to the impact on the highway system, this is reflected in the housing market, as homes are commonly being built with garages that accommodate three or more cars.

Traffic counting devices are used by the Michigan Department of Transportation to record volumes at set points along state trunklines. Table 7-1 offers comparisons of MDOT traffic volume data from 1987 to 2000, using counters placed on state trunklines in the vicinity of Crystal Falls. The traffic volumes given are in the form of Average Annual Daily Traffic, or AADT. It should be noted that construction projects which detour traffic or cause travelers to avoid certain roads in a given construction season may cause fluctuations in the AADT in a given year.

Year	Traffic Counter Location					
	U.S. 141 N. of Crystal Falls	U.S. 2 W. in Crystal Falls	U.S. 2 approx. 5 mi. W. of Crystal Falls	U.S. 2 & 141 approx. 5 mi. S. of Crystal Falls	M-69 just W. of Crystal Falls	M-69 approx. 6 miles E. of Crystal Falls
1987	1,500	7,500	3,500	2,600	2,200	1,500
1988	1,300	6,600	2,900	2,000	3,700	1,300
1989	2,000	7,300	2,800	2,500	1,100	1,100

1990	800	6,600	3,900	2,500	1,500	1,500
1991	2,500	7,800	3,000	2,400	2,300	1,400
1992	1,900	7,700	4,300	3,100	2,300	1,400
1993	1,200	6,900	4,400	3,900	4,000	1,300
1994	1,100	5,000	2,500	2,700	1,800	1,800
1995	1,200	6,900	4,100	2,700	2,700	1,500
1996	1,700	6,600	4,400	2,500	--	1,600
1997	2,600	6,500	4,200	2,500	--	1,700
1998	2,700	8,200	4,000	2,400	--	1,700
1999	3,300	6,300	4,000	2,600	--	3,000
2000	3,400	6,300	4,000	2,600	--	3,000

Source: Michigan Department of Transportation for years cited.

These traffic counts indicate that traffic on state trunklines in the area has been generally increasing over the years. While some counters show that traffic was higher in a given year, all but one location showed higher traffic levels in 2000 than in 1990. The extremely low figure for U.S. 141 north of the city in 1990 may be a result of counter failure, as this figure seems too low to be the result of a construction project.

7.7 Transportation Planning and Improvements

Planning for transportation improvements takes place at both the state and local level. The Michigan Department of Transportation maintains a statewide long-range

transportation plan, and holds hearings around the state to gather input regarding residents' needs and desires. In addition to the long-range plan, MDOT prepares a five-year program for road improvements statewide. Improvements such as the replacement of the Paint River Bridge in Crystal Falls are shown on the five-year plan, which allows the state to budget for the various phases of each improvement. The various phases, such as right-of-way acquisition, design, and construction, are scheduled over a multi-year period so as to keep these large projects on track.

Local planning efforts consist of the City's annual prioritizing of street improvement projects, as well as small urban area task force meetings to plan projects for Category F funding. Some local planning efforts address specific issues, and may receive support from MDOT, as in the case of corridor studies and access management plans.

Access management refers to long-term planning for access to highway corridors, in order to preserve the long-term capacity of the roadway, improve safety, and maintain accessibility. Access management examines the spacing and location of driveways, access roads and intersections, and access management plans can recommend such measures as driveway consolidations, front or rear access roads, turn lanes, intersection realignments, addition or removal of traffic control devices, and other measures. Implementation can involve use of zoning and subdivision control ordinances, private road ordinances, Road Commission standards for subdivision design, and use of local review boards in granting driveway permits. Access management plans are generally developed cooperatively by local units of government within a specific corridor area, with technical assistance from MDOT. Local committees enter into a Memorandum of Understanding to insure commitment to the planning process and implementation, and a consultant is usually retained to develop the actual plan by working closely with MDOT and the corridor group. At this time these efforts are usually funded by MDOT.

7.8 Public Transportation

Transportation for elderly and handicapped persons is provided by the Dickinson-Iron Community Services Agency on a demand-response basis. No public transportation system exists in the county. There is no taxi service available in Crystal Falls. This lack of public transportation service means that those in need of transportation must rely on friends, relatives and neighbors.

7.9 Rail Service

Rail service was critical to the growth and development of the Upper Peninsula. Railroads transported logs and iron ore from inland locations to ports on the Great Lakes, where they could be shipped to markets elsewhere. In turn, the railroads also brought in goods that were purchased elsewhere. Many small communities were founded as a result of the extension of a rail spur to a mine or logging camp, and most of these communities faded away when the railroads were gone. Larger communities formerly had a network of rail lines extending throughout the community; now there is usually only one rail line in the community, and old tracks have been abandoned and removed.

Crystal Falls no longer has railroad service within the city. Most of the active rail lines in the Upper Peninsula are owned and operated by Canadian National, which acquired the Wisconsin Central Ltd. Railroad in 2001. The rail line from Amasa to Sagola, owned by CN, is the closest active rail line to the City. This line cuts across Crystal Falls Township, but does not enter the city.

While the importance of rail transportation has declined in recent years in the U.S., it remains a critical form of transportation in many areas. The presence of rail service could be a potential advantage in attracting new industry to the area, if a spur could be extended to the industrial park.

7.10 Air Transportation

The nearest airport providing commercial and charter passenger service is the Ford Airport in Kingsford, a distance of about 30 miles. Midwest Connect provides daily service to Milwaukee, where connections to other cities on Midwest Express or other airlines can be made. Ford Airport is served primarily by 19-passenger turboprop aircraft. Superior Aviation provides charter service as well as a daily roundtrip flight to Lansing.

Other airports offering a greater selection of airlines and destinations are located at a further distance. The Marquette County Airport, located at the former KI Sawyer Air Force Base near Gwinn is served by American Eagle, Northwest and Midwest Connect, and is about 80 miles away. Green Bay is served by several airlines with both jet and turboprop service, and is located about 100 miles from Crystal Falls. Passenger service is also available at Escanaba, about 80 miles away, which is served by Midwest Connect with service to Milwaukee.

7.11 Non-motorized Transportation Facilities

In recent years, the construction of non-motorized facilities has increased in many areas in response to public interest. Walking and bicycling are among the top five individual exercise activities according to a national survey (walking is number one). Alternate modes of transportation are encouraged and made safer by facilities such as bike lanes and walking paths.

Sidewalks have connected residents to their neighborhoods, schools, stores and workplaces for many years. However, as automobile ownership and use have increased, and residential development has shifted to the suburbs, sidewalks are often not constructed in newer residential developments. While it can be argued that sidewalks are no longer needed in light of the automobile-oriented lifestyle that has become common, proponents of sidewalks argue that sidewalks and bike paths help promote a sense of neighborhood and community, as well as potentially reduce traffic congestion. While residents may not always use sidewalks when they are present, in the absence of sidewalks people will either drive to where they need to go or use the street as they would a sidewalk. Where there are no sidewalks, children and adults walk and ride bicycles, skateboards and in-line skates in the streets, creating a potential hazard by mixing vehicle and pedestrian traffic. The

increase in size of residential lots in new developments has also been a factor in eliminating sidewalks, as the cost per lot increases as lots become wider.

The recently constructed Riverwalk connects Lincoln Park near M-69 with the Paint River. The Riverwalk consists of boardwalk and concrete pathway, and offers a fishing pier, benches, and the natural environment of the river.

8.0 FUTURE LAND USE

8.1 Introduction

The City of Crystal Falls Planning Commission has examined the background information presented in the preceding chapters of this plan, and has formulated goals and objectives, which are discussed in Chapter 9. As a final step in the development of this Comprehensive Plan, the Planning Commission has developed recommendations for future land use in the city, which are based on the physical capability of the land, the needs of the community, and the goals for the future growth and development of the city. These future land use recommendations can serve as a guideline for future zoning decisions, and if implemented, will result in orderly growth in the community.

8.2 Future Residential Development

As evidenced by the number and type of building permits issued in recent years, Crystal Falls lags behind the surrounding townships in the number of permits issued for new construction. Most of the new housing being built in Iron County is being built in the townships, where large lots and attractive homesites are available. The platted areas in the cities, including Crystal Falls, are largely built up, and where lots are available they are too small to accommodate today's large homes with two- or three-car garages, etc. If areas in the city were available for residential development, offering large, attractive lots, local residents would have the option of building the type of home they desire in the city.

There are several areas in the city which are potentially suitable for residential development. In the northeastern corner of the city, northwest of Runkle Lake Park, lies a parcel which could offer attractive homesites. Municipal utilities are available nearby, and could be extended. Areas along the Paint River, including some river frontage and other areas with views of the river, could be developed for upscale residential use. Some of this property along the river is city-owned, while other areas are owned by private individuals. There may also be areas near the ski hill which could support residential development as well. All of these areas are recommended for residential use; the question yet to be answered is whether the city would in some or all cases wish to develop the properties, or if development by a private developer would be preferred. Both options offer advantages and disadvantages. A private developer would assume the responsibility of extending infrastructure throughout the development, while development by the city would offer a greater level of control over the type and level of development which would take place. Initially, the first step would be to encourage residential development.

8.3 Future Recreational Development

The city owns 160 acres near the ski hill, some of which is in Crystal Falls Township. This area offers great potential for recreational development to complement the ski hill, such as cross-country ski trails, biking and hiking trails, etc. Trails and greenways to connect this area to the Riverwalk, the golf course, and Runkle Lake Park are also envisioned, offering both residents and visitors the opportunity for non-motorized access throughout the community.

The first step in developing additional recreational opportunities which take advantage of the natural beauty of the area would be to include these potential improvements in the next revision of the 5-year recreation plan, and seek funding for completion of the projects.

8.4 Other Land Use Recommendations

The commercial areas in Crystal Falls are essentially utilized. However, the forthcoming move of the Crystal Manor residents and availability of the Crystal Manor building for future development presents an opportunity for the community. The Iron County EDC has received funding and is beginning a downtown marketing study, which will include recommendations for reuse of the Crystal Manor building as well as recommendations for marketing and developing the downtown area. These recommendations should be evaluated and implemented.

Finally, the irregular corporate boundaries of the city should be reviewed.

9.0 GOALS AND OBJECTIVES

9.1 Introduction

Thus far in this document, background information in a variety of areas has been analyzed and discussed. This provides a useful source of information for local officials and others wanting information about the community, but does not set forth a plan of action for the future of the City. In order to address issues or take advantage of opportunities that may have been identified during the planning process, it is necessary that this plan define goals and objectives that can be used to guide future growth and development.

The final stage of the planning process, which is implementation of the plan, begins once the goals and objectives have been defined. The first step in plan implementation is the adoption of this plan in accordance with the procedures set forth in the Municipal Planning Act, Act 285 of 1931, as amended.

The implementation process continues through adherence to the goals and objectives set forth in the plan. After the plan is adopted, however, it is useful to keep in mind that the goals and objectives are not "cast in concrete," and should be adapted as changing conditions warrant. In addition, recent amendments to the state enabling

acts for planning in Michigan require review of the plan every five years. While this review may not result in significant revisions, it may trigger a complete review, particularly if new information is available, such as a new decennial census. Significant changes in the area economy or population may also trigger a plan revision. The plan must remain flexible enough to respond to changing needs and conditions, while still providing a strong guiding mechanism for future development. City staff, elected officials, planning commission members and others should use this plan routinely as a guide in future decision making.

In order to aid in understanding the goals and objectives that follow, it is helpful to review the definitions of these items, as follows:

Goal: A broad statement of a desired future condition, the generalized end toward which all efforts are directed. Goals are often stated in terms of fulfilling broad public needs, or alleviating major problems. Goals are generally difficult to measure and are idealistic.

Objective: A specific, measurable end derived from a related goal, often to be accomplished within a specific time. When an objective is accomplished, it should represent significant and measurable progress toward a goal.

9.2 Goals and Objectives

The following goals and objectives have been articulated by the Crystal Falls Planning Commission:

Goal: Increase jobs and investment within the City of Crystal Falls.

Objectives: Develop and implement a business retention program that will actively work to keep existing firms in the City. This program could be accomplished cooperatively with the Iron County Economic Development Corporation, and should also include interaction with Michigan Economic Development Corporation staff. Meetings with local firms to explore their needs and concerns should be a centerpiece of this program.

Implement recommendations of the Downtown Marketing Study in order to reutilize and fill vacant spaces in the downtown area and make the downtown more attractive and vibrant. Reuse of the Crystal Manor facility in accordance with the study recommendations is a key part of accomplishing this objective.

Capitalize on recent and upcoming improvements to the community, such as the Riverwalk and downtown Streetscape, in marketing efforts for Crystal Falls.

Market the industrial park and attract new and expanding firms to the facility. Utilize the Renaissance Zone and other incentives to attract firms to locate in the park.

Goal: Operate all municipal facilities and services in compliance with applicable state and federal standards, and in the most efficient manner possible.

Objectives: Periodically review all municipal systems (water, wastewater, electric, cable, etc.) with regard to both the physical condition of the infrastructure and organizational issues. This review could be done internally or with the use of a consultant, depending on the complexity of the system and other factors.

Participate in organizations which provide information and ideas that can help the City operate more efficiently. Network with officials in other communities to share ideas.

Goal: Encourage the development of new single-family homes in the City, and maintain/improve current residential areas.

Objectives: Identify City-owned properties suitable for residential development and plat subdivisions that offer attractive homesites for new residents.

Review the Zoning Ordinance and amend if necessary to encourage maintenance of existing residential neighborhoods and development of new ones in suitable areas.

Review the blight ordinance, amend if necessary, and enforce ordinance as needed to encourage repair or removal of deteriorated structures.

Extend municipal infrastructure to areas unserved by infrastructure but suitable for development. Costs for such infrastructure would preferably be covered by the developer.

Utilize the Zoning Ordinance and other local regulations to encourage consistency and connectivity between old and new neighborhoods, e.g. by discouraging lengthy cul-de-sac streets and encouraging extending the grid street system into new development.

Goal: Maintain and improve the parks and recreational facilities in the City of Crystal Falls for the benefit of residents and visitors.

Objectives: Periodically update the Five-Year Recreation Plan in accordance with MDNR guidelines to maintain eligibility for MDNR grant funds.

Complete the projects identified in the Recreation Plan capital improvement schedule.

Connect parks and other attraction by extending the Riverwalk and constructing additional pathways to the Crystella Ski Hill, Runkle Lake Park, etc.

Goal: Maintain and improve the transportation network in the City to enhance traffic flow and provide for public safety.

Objectives: Investigate the formation of a County transit authority; work cooperatively with Iron County, other local units of government, MDOT, WUPPDR and others to investigate ways to provide more public transportation to local residents.

Capitalize on Crystal Falls' location at the confluence of three state trunklines as an attraction for business and industry as well as tourists.

Continue to work with MDOT to support construction of improvements to the state trunkline system as well as improvements to City streets and funding of potential transportation enhancement projects.

Provide opportunities for non-motorized transportation by extending pathways that link various attractions within the city, such as the ski hill, Runkle Lake Park, etc.

Incorporate access management guidelines into zoning and other local regulations as appropriate to provide a mechanism for addressing future traffic concerns.

Goal: To preserve historical integrity and features within the City.

Objectives: Encourage historic preservation whenever reasonable and feasible on both public and private properties.

Recognition that significant historic resources of the community are key to the area's economic revitalization and must be preserved.

Preserve the positive historic image of this community with respect to visual impacts of highway commercial development and impacts on community character.

Historic resources and residential areas must be protected from further encroachment of inappropriate commercial development.

Vacant land and existing, non-residential historic buildings along main thoroughfares should be used for development that will not negatively impact historic resources and residential character.

Appendix includes:

Pages 1 -7 of the Soil Survey of Iron County, Michigan

General Soil Map of Iron County, Michigan

The General Soil Map Units - Soil Descriptions - applicable to the City of Crystal Falls.

Detailed Soil Map of Iron County, Michigan

Detailed Soil Map Units applicable to the City of Crystal Falls

Iron County Soil Survey Tables - applicable to the City of Crystal Falls:

Table 1 - Temperature and Precipitation

Table 2 - Freeze Dates in Spring and Fall

Table 3 - Growing Season

Table 5 – Prime Farmland

Table 10 – Windbreaks and Environmental Plantings

Table 11 – Recreational Development

Table 12 – Wildlife Habitat

Table 13 – Building Site Development

Table 14 – Sanitary Facilities

Table 15 – Construction Materials

Table 17 – Engineering Index Properties

Table 18 – Physical and Chemical Properties of the Soils

Table 19 – Soil and Water Features

Table 20 – Classification of the Soils

A printed copy of the Appendix to the City of Crystal Falls Comprehensive Plan is available upon request.