Community Profile

Regional Setting

The Greater Thompsonville Area is located in the southeastern portion of Benzie County (please see figure 3.1). Part of northwest Michigan, the Greater Thompsonville Area is noted for its vast and rolling natural areas and the beautiful Betsie River. At the center of the area is the Village of Thompsonville. Located just off M115, the Village is a small but charming town with a few historical storefronts.

The Greater Thompsonville Area has a total land area of about 72.5 square miles (46,381 acres). This area is bordered by Inland and Homestead Townships to the north, Grant Township (Grand Traverse County) to the east, Springdale and Cleon Townships (Manistee County) to the south and Joyfield Township to the west. The Village of Beulah (the County Seat) is located about twelve miles to the northwest. The area is located within just a few hours drive of several large cities, including: Frankfort (19 miles); Cadillac (31 miles); Traverse City (29 miles); Manistee (39 miles); Lansing (168 miles); Grand Rapids (129 miles); Detroit (241 miles); and the Sleeping Bear Dunes National Lakeshore (30 miles), voted the *Most Beautiful Place in America* by Good Morning America in 2011.

One of the most prominent attractions in the community is Crystal Mountain Resort & Spa. Among a number of prestigious recognitions, Crystal Mountain was named the #1 ski resort in the Midwest by Ski Magazine. The 1,125 acre resort plays host to a number of year-round activities and features a walkable, compact village area as well as four distinctive homesite communities for resort-style living. Within the Resort is the Michigan Legacy Art Park. Located on a wooded 30-acre preserve, the park features 1.56 miles of hiking trails, over 40 sculptures, poetry stones and an outdoor amphitheatre for concerts. With 600 employees in the winter (500 in the summer) Crystal Mountain Resort & Spa is the largest employer in all of Benzie County.

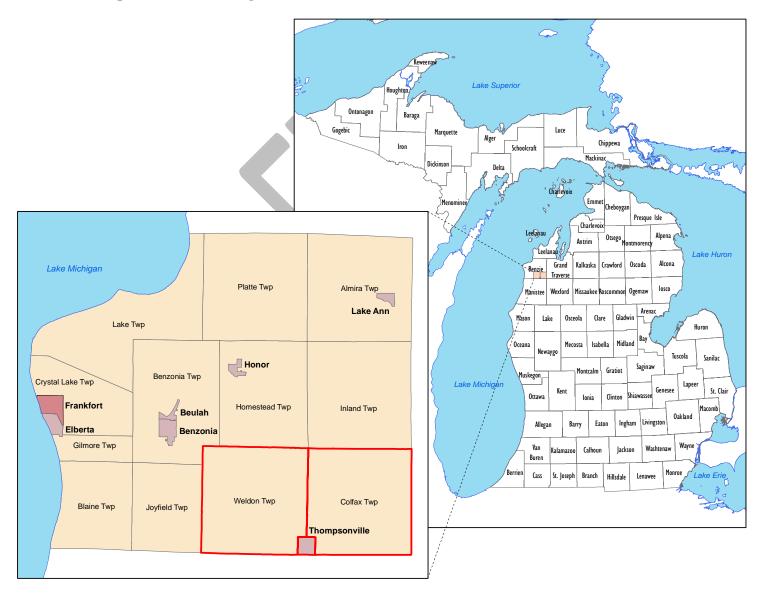
Another prominent feature of the area is the Village of Thompsonville. The Village is the focal point of commerce and civic activity in the community, home to a small number of commercial and service businesses. The Village has a rich history, particularly in lumbering and the railroad industry. Over the past several years, the Village has made substantial improvements to the downtown area, including pedestrian walkways and streetscaping. As a result, Thompsonville's downtown is a walkable and attractive place to be, providing a sense-of-place for the entire community.

Greater Thompsonville Area Master Plan

Prominent Attractions - Crystal Mountain A sampling of summer activities include Michigan's only alpine slide, the Crystal Coaster, the one-acre outdoor aquatic Park at Water's Edge, mountain biking, summer camps and schools and golf at two distinctly different courses which have received a fourstar rating from Golf Digest magazine. In the winter, visitors can ski and ride 45 downhill slopes, explore over 40 kilometers of groomed rolling terrain and wooded valleys or take advantage of award-winning kids programs, a nationally-certified ski and snowboard school and numerous winter-fun events. For meetings, weddings, reunions or banquets Crystal Center is one of the Midwest's finest conference facilities. It is a five-time recipient of the Paragon Award and one of a handful of approved conference centers by the International Association of Conference Centers in the Midwest. Lodging options include hotel rooms and suites, mountain-top condominiums and private homes. The Peak Pool and Fitness Center offers a lap pool, hot tub and fitness equipment in addition to a variety of classes and programs. In the heart of Crystal Mountain in Crystal Spa, an elegant LEEDcertified retreat with a wide range of treatment choices.



Figure 3.1 Greater Thompsonville Area - Regional Context



History of the Greater Thompsonville Area

Like most towns in northern Michigan, the history of the area is rooted in the lumber industry. On November 13, 1889 Sumner S. Thompson (of the Thompson Lumber Company) gave a deed to the Frankfort & South Eastern Railroad Company for land immediately to the west of the Pere Marquette and Ann Arbor Railroads. This area and other land owned by Thompson in the southeast corner of Weldon Township was platted on June 23, 1890 and was combined with the Henry Ward Beecher land directly to the east in Colfax Township and platted by his heirs on June 30, 1890. This one square mile became Thompsonville and was incorporated as a village in 1892. In those early years, the Village consisted of a few stores, a jail, a hotel, a large hall and a pound to care for stray cattle and dogs.

Two miles east of the Village, the heirs of Beecher bought and platted land owned by the State Lumber Company, naming it Nessen City. In 1888, the Manistee and Northwest Railroad (M&NE) reached this settlement and two years later it was extended to Traverse City to meet the needs of the lumber industry. Nessen City had a depot, a post office and a school, the latter of which today is privately owned. Earlier, in 1867, the John Griner family chose this area in Colfax Township for their homestead which eventually grew to 80 acres. When the M&NE Railroad was built, it passed by their property. Pioneers cleared and plowed virgin forest; they built homes with logs that were square-edged to lay flat and were held together with pins they made and hammered into bored holes. Descendents of the early settlers still reside in the area.

The two rail lines that converged in Thompsonville brought new commerce and people to the Greater Thompsonville Area. The Pere Marquette Railroad was primarily used to haul freight between Chicago and Petoskey. The Ann Arbor Railroad was primarily used to haul freight between Toledo, Copemish and eventually Frankfort. In the early 1900s, the Ann Arbor Railroad operated what was known as the "ping-pong" passenger train, which carried wealthy vacationers between Thompsonville and Frankfort, with stops in Beulah, every two hours during the busy summer months. The two train depots eventually closed in 1950 and 1969. Greater Thompsonville Area - The Piqua Handle Company made all sizes and kinds of hardwood handles, as well as jointed wood poles for pup-tents in WWI. At its peak, the company employed over 100 men and was Thompsonville's largest employer. The company closed and moved to Marquette in 1916.



Greater Thompsonville Area - The Village of Thompsonville train depot.



Three miles to the north of Nessen City, records show that land was acquired from the state in 1886 by Dudley P. Hall and B.F. Lincoln. In 1894, Thomas S. Wallin of the C.C. Wallin Leather Company (of Grand Rapids and Chicago) purchased land in the area. Hemlock was abundant at the time and was used in tanning leather. The Pere Marquette Railroad went through the unincorporated village of Wallin from Thompsonville and crossed the Betsie River on a wooden bridge, portions of which still stand today. A coal warehouse was located along the river, and several businesses served the community along with a one-room schoolhouse. After a number of fires and the disappearance of timber, businesses and most residents left the area. The location of the old depot and railroad bed is now a wide gravel road serving rural residents. The schoolhouse is used today by the Wallin Community Club which welcomes everyone.

History of Crystal Mountain

In the early 1950s, the Benzonia High School principal Ward Creech set out to find the best location for a ski area. After searching Benzie County and the surrounding areas, he selected a range of hills located in Weldon Township, just west of the Village of Thompsonville - the Buck Hills Range. Through the efforts of Mr. Creech, a dedicated group of local citizens and Weldon Township, the Buck Hills Ski Area was established in 1956. The township applied to the state for acquisition of the land for use as a public ski facility because it could not be acquired by individuals or businesses. The ski facility featured two tow ropes and a small warming hut.

In 1960, Toledo Ohio resident Ed Abbey and a group of investors purchased the ski area and renamed it Crystal Mountain. The new ownership group added the region's first double chairlift, additional ropetows, a lodge and large outdoor heated pool.

In 1966, Crystal Mountain was transferred to a group of investors headed by local businessman George Petritz. Upon his retirement, George's daughter Chris and her husband Jim MacInnes took over operations of the resort.

Greater Thompsonville Area - Remnants of the old Pere Marquette railroad bridge over the Betsie River still stand today.



Crystal Mountain - Crystal Mountain in the early 1950s.



Socio-Economic Characteristics

The following section discusses the population, housing and economic characteristics and trends of the Greater Thompsonville Area. For the purpose of this plan, we have used figures provided by the US Census Bureau from 1990, 2000 and 2010. In some instances, due to a lack of available data from the 2010 US Census, statistics from 2000 were used. Please note, due to their physical and political relationship, Village statistics are included in each of the Township's statistics.

Population Trends

Based on data published by the US Census Bureau, there were 1,640 people living in the Greater Thompsonville Area in 2010 - 441 people living in the Village of Thompsonville, 542 people living in Weldon Township and 657 living in Colfax Township. For the Village, this is about a 3.5% decrease over the population recorded in 2000. Between 2000 and 2010 the population in Weldon Township increased by 2.3% and Colfax Township by12.3%. However, growth over this ten-year period in the two Townships was at much slower rates than between 1990 and 2000. Table 3.1 presents the population trends from 1990 to 2010 for the Greater Thompsonville Area and Benzie County.

Table 3.1 Population Trends. 1990 - 2010

Community	1990	2000	Percent Change 1990 - 2000	2010	Percent Change 2000 - 2010
Thompsonville (Village)	416	457	9.9%	441	-3.5%
Weldon (Township)	448	530	18.3%	542	2.3%
Colfax (Township)	415	585	41.0%	657	12.3%
Benzie County	12,200	15,998	31.1%	17,525	9.5%
Source: US Census Bureau					

Population Projections

Recent trends suggest that a modest decrease in the overall population in the Village can be expected over the next two decades. Conversely, we can expect the population of the two Townships to increase. Although there is no way to predict the total population growth with certainty, we can use projection methods to obtain useful

estimates. Table 3.2 presents the population projections for the Village, Townships and County for the next 20 years. The population projection was based on the rate of change from 2000 to 2010.

Forecasted Population									
2000 2010 2020 2030									
457	441	425	409						
530	542	554	566						
585	657	729	801						
15,998	17,525	19,052	20,579						
Source: US Census									
	457 530 585	2000 2010 457 441 530 542 585 657	2000 2010 2020 457 441 425 530 542 554 585 657 729						

Table 3.2 Population Projections. 2010 - 2030

Racial Make-Up

In 2000 and again in 2010, citizens identified as "white" made up over 96% of the population within the Village and Townships. The number of citizens defined by a race other than "white" is quite small. The largest of these populations is the "Hispanic/Latino" population, still not quite 2.5% of the population. Table 3.3 presents the racial make-up of the Village and Townships for 2000 and 2010.

Table 3.3 Racial Make-Up. 2010

Race	Thompsonv	ille (Village)	Weldon T	ownship	Colfax Township	
ndle	Number	Percent	Number	Percent	Number	Percent
White	418	94.8%	521	96.1%	636	96.8%
Black or African American	1	0.23%	1	0.2%	1	0.2%
American Indian and Alaska Native	11	2.5%	5	0.9%	14	2.1%
Asian	1	0.2%	1	0.2%	0	0.0%
Hispanic/Latino	6	1.4%	10	1.9%	7	1.2%
Native Hawaiian and Other Pacific Islander	0	0.0%	0	0.0%	0	0.0%
Some other race	1	0.2%	5	0.9%	0	0.0%
Two or more races	9	2.0%	9	1.66	6	0.9%
Source: US Census Bureau						

Age Distribution

The age distribution of the Greater Thompsonville Area population can be an important factor in identifying social, economic and public service needs. There are several identifiable stages that individuals go through during the span of a lifetime. Using US Census Bureau statistics, we have characterized eight life-stages, including: (1) Preschool; (2) Elementary; (3) Secondary; (4) College; (5) Young Family; (6) Established Family; (7) Mature Family; and (8) Retired.

As detailed in Table 3.4, the 2010 Census statistics demonstrate the largest population group is the *Established Family* group, ages 35 to 54 years old for the Village and both Townships (ranging between 28% and 36% of the population). This population group was the largest in 2000 as well. Statistics for 2010 show that the smallest population group is the *College* group, ages 20 to 24. However, the *Young Family* group is between the third and fifth largest cohort in the community (on average over 11% of the population). The *College* and *Young Family* population groups are generally considered to make up the new and necessary creative-skilled work force ("creative-class") identified by the Michigan State University Land Policy Institute. The *Retired* group is the second largest cohort in the Village and Weldon Township and the fourth largest in Colfax Township.

Households & Composition

Information about the number and types of households can be useful in characterizing the social and economic forces at work in the community. Table 3.5 presents this data for the Greater Thompsonville Area as compiled from the 2000 and 2010 Census.

From 2000 to 2010, there was an increase in the total number of households in the Village and both Townships. Although not provided, we can assume (based on 1990 and 2000 Census statistics) that the total number of people living in traditional "married-couple family" households decreased. At the same time, number of "female head of household- no husband present" (including those with kids) increased between 2000 and 2010. If we take into account the number of "male householder, no wife present" households (statistics not shown), the socioeconomic changes suggested by the data for the Greater Thompsonville Area are consistent with reported national trends toward more single-parent and non-traditional families and more single-person households.

Statistics aggregated for this Plan also show that from 2000 to 2010, the size of the households and families decreased.

Stage of Life	Ago Group	Thompsonv	ville (Village)	Weldon (1	Fownship)	Colfax (T	ownship)		
Stage of Life	Age Group	2000	2010	2000	2010	2000	2010		
Preschool	Under 5 years	22	33	21	30	32	35		
Preschool	Percent of Total	4.8%	7.5%	4.0%	7.4%	5.5%	7.4%		
Elementary	5 to 14	83	51	72	58	106	80		
Elementary	Percent of Total	18.2%	11.6%	13.6%	10.7%	18.1%	12.2%		
Cocondom	15 to 19	37	37	41	34	34	44		
Secondary	Percent of Total	8.1%	8.4%	7.7%	7.7%	5.8%	7.7%		
Collega	20 to 24	26	21	27	18	23	29		
College	Percent of Total	5.7%	7.1%	5.1%	5.8%	3.9%	5.8%		
Young Family	25 to 34	61	57	67	57	87	61		
	Percent of Total	13.3%	12.3%	12.6%	11.0%	14.9%	11.0%		
Established Family	35 to 54	122	127	142	158	196	239		
Established Family	Percent of Total	26.7%	28.8%	26.8%	29.2%	33.5%	36.4%		
Matura Family	55 to 64	41	46	71	75	48	91		
Mature Family	Percent of Total	9.0%	10.4%	13.4%	13.8%	8.2%	13.9%		
Retired	65+	65	69	89	112	59	78		
Ketirea	Percent of Total	14.2%	15.6%	16.8%	20.7%	10.1%	11.9%		
Totals		457	441	530	542	585	657		
Median Age		34.9	38.5	42.3	46.6	35.9	41.5		
Source: US Census Bure	au.								

Table 3.4 Age Distribution.2000 - 2010

	Thompson	ville (Village)	Weldon (Township)	Colfax (Township)	
	2000	2010	2000	2010	2000	2010
Total Number of Households	180	183	217	237	224	266
Family Households (families)	120	112	150	152	170	184
Percent of family households	66.7%	61.2%	69.1%	64.1%	75.8%	69.2%
Married-Couple Family	85	na	117	na	138	na
Percent of married couple families	47.2%	na	53.9%	na	61.6%	na
With children under 18 years	39	na	55	na	65	na
Percent of married couple families w/children under 18 years	21.7%	na	25.3%	na	29.0%	na
Female Head of Households, No Husband	25	30	23	26	17	25
Percent of female heads of households	13.9%	16.4%	10.6%	11.0%	7.6%	9.4%
With children under 18 years	16	16	16	14	11	14
Percent of female head of household w/children under 18 years	8.9%	8.7%	7.4%	5.9%	4.9%	5.3%
Non-Family Households	60	71	67	85	54	82
Percent on non-family households	33.3%	38.8%	30.9%	35.9%	24.1%	30.8%
Householder living alone	52	56	54	72	46	61
Percent of householder living alone	28.9%	30.6%	24.9%	30.4%	20.5%	22.9%
Householder 65 years and older	27	23	25	37	15	16
Households w/individuals under 18 years	66	52	60	59	88	77
Households w/individuals 65 years and over	52	53	65	87	45	22
Average Household Size	2.54	2.41	2.44	2.29	2.61	2.47
Average Family Size	3.12	2.99	2.87	2.83	3.02	2.9
Source: US Census Bureau.						

Table 3.5 Household Trends and Composition. 2000 - 2010

(NA) - Not Available

Education and Employment

Table 3.6 presents information on the educational attainment of people in the Greater Thompsonville Area as tallied by the US Census Bureau for 2000. In each jurisdiction, at least 65% of the residents are high school graduates or higher. However, a small percentage of the population has a Bachelor's Degree or higher (Village of Thompsonville 5.0%, Weldon Twp.10.9%, and Colfax Twp. 8.1%).

Table 3.6 Educational Attainment. 2000

Educational Attainment (2000)	Thompsonville (Village)	Weldon Township	Colfax Township
Total population over 25 years	317	386	381
Less than 9th grade	24	31	6
Percent of total	7.6%	8.1%	1.6%
9th to 12th grade, no diploma	84	79	72
Percent of total	26.5%	20.5%	18.9%
High school graduate	143	156	161
Percent of total	45.1%	40.5%	42.3%
Some college, no degree	46	59	95
Percent of total	14.5%	15.3%	24.9%
Associates Degree	4	18	16
Percent of total	1.3%	4.7%	4.2%
Bachelor's Degree	9	20	22
Percent of Total	2.8%	5.2%	5.8%
Graduate of Professional Degree	7	22	9
Percent total	2.2%	5.7%	2.4%
Percent high school graduate or higher	65.9%	71.4%	79.5%
Percent with Bachelor's Degree or higher	5.0%	10.9%	8.1%
Source: US Census Bureau			

Education and Community - Numerous studies have shown that educational attainment is related to an individual's earning capacity. That is, people with higher levels of education tend to have higher total income levels over a lifetime. Therefore, the average educational achievement of the citizens of a community is an indicator of the economic capacity of that community. Communities with higher levels of educational achievement tend to have a higher earning capacity than those with lower levels of educational achievement. According to the US Census Bureau, between 1990 and 2000, the number of people employed in each jurisdiction increased by (a combined) total of 387 people. In addition, the number of people unemployed decreased dramatically between 1990 and 2000. Of course, these statistics demonstrate the employment status prior to the economic collapse of 2008. Table 3.7 indicates that for Benzie County the unemployment rate over the last 4-year period has ranged from around 10% to 18%. As of March 2012, the unemployment rate for Benzie County was 12.4%.

Table 5.7 Employment Status. 1990 - 2000									
	Village of Tho	ompsonville	psonville Colfax Tov		Weldon Township		Benzie Cou	inty	
Employment Status	1990	2000	1990	2000	1990	2000	Unemploymen	t Rate	
Population Over 16	272	387	293	418	312	450	Jan. (2008)	10.3%	
Civilian Labor Force	149	249	170	277	168	282	Jan. (2009)	14.6%	
Employed	116	237	136	265	130	267	Jan. (2010)	18.9%	
Unemployed	33	12	34	12	38	15	Jan. (2011)	15.7%	
Percent of Civilian Labor	22.10/	4.99/	20.0%	4 20/	22.6%	F 20/	Jan. (2012)	13.9%	
Force, Unemployed	22.1%	4.8%	20.0%	4.3%	22.6%	5.3%	March (2012)	12.4%	
Source: US Census and NWMCOG									

Table 3.7 Employment Status.1990 - 2000

Commuting Time

According to US Census statistics, in 2000 the mean travel time for commuters in the Greater Thompsonville Area averaged about a half-hour (Village of Thompsonville 33.3, Weldon Township 29 and Colfax 37.5). Also, the number of commuters who either walked or used public transportation was minimal. This data suggests that the bulk of the community's residents continue to travel a significant distance to find work. Table 3.8 demonstrates the commuting status of the Greater Thompsonville Area in 2000.

Commuting to Work Workers 16-years and Over	Thompsonville (Village)		Weldon (Township)		Colfax (Township)	
(2000)	Number	Percent	Number	Percent	Number	Percent
Workers 16-years and over	237		260		262	
Car, truck or van - drove alone	177	74.7%	190	73.1%	210	80.2%
Car, truck or van - car pooled	35	14.8%	37	14.2%	37	14.1%
Public transportation	0	0.0%	0	0.0%	0	0.0%
Walked	8	3.4%	14	5.4%	0	0.0%
Other means	0	0.0%	0	0.0%	6	2.3%
Worked at home	17	7.2%	19	7.3%	9	3.4%
Mean travel time to work (minutes)	33.3		29.0		37.5	
Source: US Census Bureau						

Table 3.8 Commuting Status. 2000

Income by Household

Total household income is a key barometer of the economic condition of a community. Often, income determines the amount of money available for retail expenditures, housing purchases and local investments. These expenditures and investments directly and indirectly determine the amount of money available for public facilities and services, primarily through the local property tax base.

Table 3.9 presents the median household and family income of the Greater Thompsonville Area from 1990 to 2000. Overall, the median household income and median family income has increased significantly over that ten-year period. From 1990 to 2000 there was a decrease in the percentage of families and individuals living below the poverty line.

	Thompsonv	ille (Village)	Colfax (T	ownship)	Weldon (Township)	
	1990	2000	1990	2000	1990	2000
Median Household Income	14,531	29,125	17,272	37,250	15,833	33,125
Median Family Income	17,604	31,103	21,094	38,482	16,827	37,917
Per Capita Income	6,473	12,104	6,894	14,812	7,311	17,725
	Thompsonville (Village)		Colfax (Township)		Weldon (Township	
	1990	2000	1990	2000	1990	2000
	Percent	Percent	Percent	Percent	Percent	Percent
Families below the poverty line	21.2%	12.8%	16.2%	6.4%	16.3%	8.9%
With related children under 18 years	31.3%	20.3%	17.2%	6.0%	26.6%	21.3%
With related children under 5 years	19.4%	22.2%	11.1%	0.0%	11.1%	25.0%
Individuals below the poverty line	27.1%	13.3%	20.0%	6.9%	18.8%	12.6%
65 years and older	30.5%	7.1%	62.1%	4.9%	8.1%	14.5%
Source: US Census Bureau 2000 data is from 1	999 and 1990 da	ta is from 1998				

Table 3.9 Median Household and Family Income. 1990 - 2000

Change in Housing

Table 3.10 depicts the change in housing recorded by the Census Bureau for the Greater Thompsonville Area from 2000 to 2010. Between 2000 and 2010, the percentage of housing units increased by about 10% in the Village, 37% in Weldon Township and 32% in Colfax Township respectively. Census figures show that the number of vacant housing units within each jurisdiction increased by over 50% - most dramatically in Colfax Township by just over 75%. Census figures show that the number of *Vacant Housing Units for Seasonal, Recreational or Occasional Use* increased - most substantially in Weldon Township, by 163 units. Census figures also show the homeowner vacancy rate increased substantially in each jurisdiction between 2000 and 2010, most notably in the Village of Thompsonville (281%) and Weldon Township (381%). The same can be said about the rental vacancy rate, most notably in the Village (108.2%) and Colfax Township (122%).

Tuble etto Housing Occupane		osonville (V	illage)	Weldon Township			Colfax Township			
Housing Occupancy	2000	20	2010 2000		20	2010		2	2010	
	Number	Number	% Change	Number	Number	% Change	Number	Number	% Change	
Total Housing Units	221	245	10.9%	483	664	37.5%	297	394	32.7%	
Occupied Housing Units	180	183	1.7%	217	237	9.2%	224	266	18.8%	
Owner Occupied Housing Units	142	144	1.4%	179	200	11.7%	205	234	14.1%	
Renter-Occupied Housing Units	38	39	2.6%	38	37	-2.6%	19	32	68.4%	
Vacant Housing Units	41	62	51.2%	266	427	60.5%	73	128	75.3%	
Vacant Housing Units - For Seasonal, Recreational or Occasional Use	18	20	11.1%	207	370	78.7%	54	96	77.8%	
Homeowner Vacancy Rate	2.1%	8.0%	281.0%	1.6%	7.7%	381.3%	2.4%	3.3%	37.5%	
Rental Vacancy Rate	7.3%	15.2%	108.2%	32.1%	38.3%	19.3%	5.0%	11.1%	122.0%	
Source: US Census Bureau	Source: US Census Bureau									

Table 3.10 Housing Occupancy. 2000 - 2010

Age of Housing Stock

A large percentage (58%) of the housing stock in the Village of Thompsonville was built prior to 1970. Units constructed before 1960, or in some cases before 1970, were built with quality craftsmanship but before modern building codes were instituted. In both Weldon Township and Colfax Township, a larger percentage of homes were constructed after 1980. Table 3.11 presents information on the housing stock for the Greater Thompsonville Area.

	Thomps	sonville (Village)	Weldon (Township) Colfax (Town		ax (Township)			
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total		
1939 or earlier	82	36.6%	75	15.6%	40	13.9%		
1940 - 1959	32	14.3%	50	10.4%	25	8.7%		
1960 - 1969	18	8.0%	24	5.0%	38	13.2%		
1970 - 1979	41	18.3%	67	13.9%	44	15.3%		
1980 - 1989	23	10.3%	131	27.2%	43	15.0%		
1990 - 2000	28	12.5%	135 28.0%		97	33.7%		
Source: US Census Bureau								

Types of Housing Structures

Typical of many small towns throughout Northwest Michigan, the bulk of the housing stock is singlefamily dwellings. Generally, urban areas have a relatively lower percentage of single-family dwellings and a higher percentage of duplexes and multi-family dwellings than their township counterparts, due in part to the availability of municipal services and lack of open, buildable space. However, Weldon Township has a higher concentration of multi-family housing units. This is due to the condominium type housing at Crystal Mountain Resort: 10% are 3 to 4 unit structures and 7.3% are 5 to 9 unit structures. Just over 31% of the housing units in Colfax Township are classified as mobile home units. Table 3.12 describes the types of housing in the Greater Thompsonville Area. Housing Structures - The compact "village" area of Crystal Mountain Resort contributes to the high concentration of multi-family housing units in Weldon Township.



	Thompsonville (Village)				Colfax (Township)				Weldon (Township)			
	1990		2000		1990		2000		1990		2000	
Units in Structure	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1-unit detached	129	63.5%	144	64.3%	148	64.1%	194	67.6%	260	77.6%	333	69.1%
1-unit attached	None	None	5	2.2%	None	None	3	1.0%	None	None	10	2.1%
2 units	None	None	6	2.7%	None	None	None	None	None	None	6	1.2%
3 to 4 units	5	2.5%	None	None	None	None	None	None	5	1.5%	48	10.0%
5 to 9 units	None	None	None	None	None	None	None	None	None	None	35	7.3%
10 to 19 units	11	5.4%	9	4.0%	None	None	None	None	11	3.3%	9	1.9%
20 or more units	None	None	None	None	None	None	None	None	None	None	None	None
Mobile Home	NA	NA	60	26.8%	NA	NA	90	31.4%	NA	NA	41	8.5%
Boat, RV, van, etc.	NA	NA	None	None	NA	NA	None	None	NA	NA	None	None
Total Housing Units	203		224		231		287		335		482	
Source: US Census Bureau												

Table 3.12 Types of Housing.1990 - 2000

Existing Land Characteristics

The characteristics of the land in the Greater Thompsonville Area, and the way people use the land, change over time. Trees grow and mature in areas that were once open fields. Lands that were once cultivated as farmlands become shrub-covered fields. Houses are built in areas that once were forests. In order to make informed decisions regarding future land use, it is critical to have a clear understanding of existing land uses and relationships between land uses.

This section will describe recent patterns of land use in the Greater Thompsonville Area and how those patterns changed between 1978 and 2006. To make this comparison, we have used a geographic information system (GIS) to evaluate and compare two different land use maps derived from aerial photographs and other data. The first map was created for the Michigan Resource System (MIRIS) in 1978 under the direction of the Michigan Department of Natural Resources. The second map was derived by the Land Information Access Association (LIAA) using the MIRIS standards and procedures and based upon aerial photographs taken in 2006.

Both maps were created by trained technicians following procedures for interpreting aerial photographs and categorizing the land uses identified. In general, land use areas were mapped if they were 2.5 acres or greater in size. For example, a half-acre residential lot in the middle of a forest would be ignored. As a result, these maps provide *relatively accurate* summaries of land characteristics on a township-wide basis, but not detailed point-by-point analyses.

The land use maps in this section should be interpreted in conjunction with the text and tables to gain a better understanding of the variation and distribution of land uses throughout the community. The data represents the actual use of land as seen from the air and recorded in the land use classification system. This system uses seven major categories, referred to as Level 1 Categories, at right.

The seven major categories can be further subdivided into the Level 2 subcategories listed in parentheses, at right. For example, an area of land classified as *Urban/Built* could be mapped and categorized as *urban residential use*. In some cases, aerial photography and detailed interpretation would allow further categorization to Level 3. However, in performing this analysis, we focused on larger areas of land use, using just Level 1 categorizations.

Level 1 Categories

Land Use Level One		1978 Land Use	Percent	2006 Land Use	Percent	
Land Ose Level On	e	Acres	Percent	Acres	Fercent	
Urban & Built Up	1	1,118.3	2.4%	3,234.0	7.0%	
Agricultural	2	1,065.3	2.3%	1,009.7	2.2%	
Grass & Shrubs	3	10,428.5	22.5%	7,058.2	15.2%	
Forest Land	4	26,397.4	56.9%	25,009.8	53.9%	
Water	5	123.3	0.3%	68.2	0.1%	
Wetlands	6	7,248.9	15.6%	9,984.3	21.5%	
Barren	7			17.5	0.1%	
Total		46,381.7		46,381.7		

Table 3.13 Existing Land Use: 1978 - 2006

Table 3.14 Existing Land Use (Net Change): 1978 - 2006

Level One Description	Urban	Agricultural	Non-Forest	Forest	Water	Wetlands	Barren	Totals	
Level One Code	1	2	3	4	5	6	7		
1978 Acres	1,118	1,065	10,429	26,397	123	7,249	0	46,381	
2006 Acres	3,234	1,009	7,058	25,010	68	9,984	18	46,381	
Change in Acres from 1978	Gained	Lost	Lost	Lost	Lost	Gained	Gained	Change	
change in Acres from 1976	2,116	56	3,371	1,387	55	2,735	18	9,738	
Change in Percent from 1978	Gained	Lost	Lost	Lost	Lost	Gained	Gained	Change	
change in Percent Holli 1978	189.3%	-5.3%	-32.3%	-5.3%	-44.7%	37.7%	None	20.0%	

Maps 1 and 2 depict the distribution of land uses identified for the Greater Thompsonville Area in 1978 and 2006. There are 46,381 acres of land in the Greater Thompsonville Area. In 1978, approximately 56% of this area (26,397 acres) was classified as forests; about 22% of the area (10,428 acres) was classified as grass and shrubs; 15% of the area (7,248 acres) was classified as wetlands; and only about 2.4% of the area (1,118 acres) was classified as "urban-&-built-up".

The 2006 land use map shows that land use and land cover changed significantly from that in 1978. In 2006, roughly 7% of the land area (3,234 acres) was classified as "urban & built up" while about 21% of the area (9,984 acres) was considered wetlands.

Table 3.13 provides the acreages and percentages of land areas classified for each category in Level 1 for 1978 and 2006. Again, these calculations are based on mapping with a limited level of accuracy (e.g. no mapped areas of less than 2 ½ acres). Regardless, comparisons of the two maps and related tables present a useful summary of land use patterns in the Greater Thompsonville Area and indicate trends in land use over the past 28 years.

Table 3.14 shows the actual net change in Level 1 land use over a 28-year period from 1978 to 2006 in the area. The largest change (in total acres) was the 2,735 acre increase in wetland land uses. The other substantial change (in percentage of the total) was the 2,116 acre increase in "urban-&-built-up", a 189% increase. In addition, the number of acres classified as "water" declined by just over 44%.

Community Facilities

Transportation

The safety, effectiveness and efficiency of local transportation systems are key factors in development, economic vitality and public safety throughout Michigan. However, public roadways and other transportation infrastructure are extremely expensive facilities to build and properly maintain. As a result, transportation planners prefer to plan these investments carefully and well in advance of the need. On the other hand, unexpected commercial and residential development can place unplanned and uneven demands on road networks. Therefore, community planners consider the existing condition and capacity of local transportation systems and potential future needs when developing a community's master plan.

Based on figures released by the US Census, there was an estimated 53% increase in the number of housing units in the Greater Thompsonville Area between 2000 and 2010. These new housing units have added an estimated 3,020 car trips per day to the community street network. (The Institute of Transportation Engineers estimates 10 car trips per day, per housing unit.) Such increases in traffic put an increasing load on the community's road network and can be expected to increase maintenance and repair requirements over time. Additionally, increased vehicle traffic presents greater safety concerns.

The principal and most central thoroughfare in the Greater Thompsonville Area is state trunkline M115. Located just south of the Village, heading west through Weldon Township, M115 travels approximately 97 miles from Clare to Frankfort and is the primary route for visitors to the area from downstate.

The road system in the Village follows a basic grid pattern which provides opportunities for citizens to safely and efficiently move around the community. Other primary roads include Karlin, Lindy, South Thompsonville Highway, South Pioneer and North Manistee County Line.

The Federal Highway Administration has developed a classification system for all streets, roads and highways called the National Functional Classification (NFC). This system is designed to reflect the function of a roadway, which corresponds with the street's eligibility for certain funding opportunities. Under the NFC, roads are classified into the categories listed and described below. *Map 3* illustrates the designation of roads under the Federal System.

Transportation - M115 is one of the primary entryways into the Greater Thompsonville Area.



Greater Thompsonville Area Master Plan

Principal Arterials - Relatively high capacity roads which provide unity throughout a contiguous urban area; medium speed/capacity roads for the rest of the county-wide arterial highway system; should have minor access control and channelized intersections.

Minor Arterials - Similar in function to principal arterials, except they carry trips of shorter distance and to lesser traffic generators.

Collectors - Relatively low speed/low volume streets, typically two lanes for circulation within and between neighborhoods. The roads serve generally short trips and are meant to collect trips from local streets and distribute them to the arterial network.

Local - Low speed/low volume roads which provide direct access to abutting land uses. In general, these roads do not conduct through-traffic.

Traffic Volume

The volume of traffic that uses a roadway within a 24-hour period is a common measurement of the load or overall use of a roadway. This *average daily traffic* (ADT) can be used to estimate the desirable design capacity of a given roadway to provide safe and effective vehicle travel. Unfortunately, there is little data available for the Village and both Township roadways. However, the Michigan Department of Transportation has measured the average daily traffic volume on M115 (measured in 2009) at about 3,100 cars per day. In addition, MDOT has measured the range of commercial daily traffic at between 1 and 300 commercial vehicles per day

Gas Prices

The price of gas can have a direct impact on the personal activities and economy of a community. For example, high gas prices can have a significant impact on commuters. According to the 2000 Census Bureau estimates, over 70% of the area workers commute at least 30 miles to work. High gas prices can also affect the cost of operating trucking operations. At the development of this document, according to the AAA, the average price for a gallon of gas in Michigan was \$3.83. Over the last year, the highest recorded average for a gallon of gas was set in May, at \$4.25. Unfortunately, future gas prices cannot be predicted. However, peak-oil proponents believe that the price of gas will continue to rise into the future. Public officials have the opportunity to help control transportation costs for the community by encouraging and/or providing for public and non-motorized transportation options and car-pooling in future planning efforts.

Transportation (Roads) - In addition to the Federal designation, the State of Michigan funds and classifies roads under Act 51. Under Act 51, roads are classified into the categories listed below. *Map 4* illustrates the Act 51 roads.

State Trunklines - Roads, streets and highways are assigned to MDOT. MDOT is responsible for the maintenance, construction and improvements to these roads. Their primary purpose is to facilitate through-traffic movements.

County Primary - These routes serve longer distance trips between major destination points within the County. Primary roads are planned to facilitate through-traffic movement, while allowing access to homes and businesses.

County Local - Roads that provide access to homes and businesses and are designed for short to medium length trips. These roads connect to the Primary and State Trunkline roads.

City Major - Major routes within a city's jurisdiction that provide for longer distance trips and higher capacity traffic.

City Local - Like County Local roads, these roads provide access to homes and businesses and are designed for short to medium length trips.

Public Transportation

In 2006, the Benzie County Board of Commissioners formed the Benzie Transportation Authority with directions to establish public transportation throughout Benzie County that *connects people of all ages and abilities to our community and promotes independence and prosperity through a safe and convenient public transit system*. Today the Benzie Bus system operates a fleet of 26 buses, some of which are equipped with wheelchair lifts. The Benzie Bus makes regular stops in Frankfort, Beulah, Benzonia, Honor, Lake Ann and Thompsonville. In addition, the Benzie Bus makes daily trips to Traverse City. A full one-way fare is \$3.00. Senior citizens, children and persons with disabilities can ride for \$1.50.

Sidewalks

Walking is the most basic mode of transportation available to human beings. Along with trails, pathways and other non-motorized routes, sidewalks are the primary support mechanism for walking in most communities. In addition, sidewalks provide a public focal point to sociable interchanges. In recent years, the term "walkability" has been used to help describe the broad range of community design features that support a walking environment. According to the American Planning Association a "walkable" community is *a place in which residents of all ages and abilities feel that it is safe, comfortable, convenient, efficient and welcoming to walk, not only for recreation but also for utility and transportation.*¹

Walkability also plays a significant role in placemaking, attracting visitors and allowing people to easily navigate throughout the community, access important cultural, community and business amenities and interact with other people. In general, people are willing to walk between ¹/₄ mile (about 5 minutes) and ¹/₂ mile (about 10 minutes) to destinations. If the distance and walking time is greater, people are more likely to use an automobile.² The sidewalk infrastructure in downtown Thompsonville provides pedestrians with safe access to area businesses and community assets. However, there are several areas in the surrounding neighborhood where sidewalk infrastructure is incomplete, in disrepair or blocked by vegetation. In the townships, wide shoulders along many roadways provide opportunities for walking and biking.

Public Transportation - The Benzie Bus provides public transportation options to area residents - connecting to other communities throughout the county and Traverse City.



Walkability - The extent to which the built environment is friendly to the presence of people walking, living, shopping, visiting, enjoying or spending time in an area. (Picture below of downtown Thompsonville)

Dan Burden, Walkable Communities & Glatting Jackson, Kercher Anglin, Inc. *Walkability - Sault Ste. Marie, 2008*



¹ Planning and Urban Design Standards, American Planning Association. 2006

² Dan Burden. Transportation Research Board Distinguished Lectureship, 2001 Walkable Communities video - www.walkable.org

Utilities and Infrastructure

Water and Sewer

Like many rural areas, Weldon and Colfax Townships do not provide public water and sewer service to its residents. However, water service is provided in the Village of Thompsonville as well as Crystal Mountain Resort. Property owners in all other areas must provide their own water through wells. Property owners in all three jurisdictions provide sanitary sewer service through private septic systems except Crystal Mountain which has a sanitary sewer system. In the Village and Crystal Mountain, the water supply systems are served by separate 100,000 gallon elevated storage tanks, The Village has three water supply wells and a network of distribution lines. Its storage tank was installed in 1980, along with other upgrades to provide service for a majority of the Village. Prior to these improvements the system was pressurized by means of a hydro pneumatic tank. The system's pressures range from 45 psi to 55 psi, which are well regarded pressures.

Groundwater

Groundwater provides most of the drinking water to the Greater Thompsonville Area. Therefore, maintaining and preserving the quality and safety of groundwater is very important. According to the Benzie County 2020 Comprehensive Plan, water tables in portions of the county are close to the surface and soils are highly permeable. This makes groundwater more vulnerable to contamination from surface spills of toxic (and even common everyday) materials, leaking underground tanks and improperly treated sewage. The Plan goes on to say that in some instances, special treatment approaches, such as mounded septic systems, holding tanks and pumped septic systems are necessary to protect groundwater. These can influence the size of building lots and, to some extent, where homes and businesses can be built.

Energy and Electricity

Electric service in the Village and Townships is provided by Cherryland Electric. A major substation serving the area sits just north of M115, west of the Village. Most of the area is served by propane.

Communications and Broadband

The Greater Thompsonville Area has internet coverage. Coverage is provided by the Ace Communications Group and satellite providers.

Public Water - According to a 2011 water study 20,290,500 gallons of water were used in 2010.

According to the study, based on 2007 average daily flows, the water tower has a limited amount of excess capacity over the present requirements for domestic and fire protection demand. As a result, only 35,825 gallons of excess storage is available to serve the future development needs of the village. This excess storage capacity can serve about 88 households.



Fire/Emergency/Police

Fire

The Thompsonville Fire Department was established in 1893. The first fire equipment was a horsedrawn wagon in the summer and a sleigh in the winter that hauled the fire hoses. The department consisted of a Fire Chief and a crew of twelve men.

Equipment was first housed in a shed near Front Street between Lincoln and Thompson Avenues. In 1950, a new cement block firehouse was built and contained two stalls and an office. A blackboard hung on the wall to guide the fireman to fires. In 1997, a new six-bay fire station was built by volunteers. Two of the bays were designated for use by the Thompsonville Ambulance Service. The building also has a community center with a full kitchen and three offices for the Village of Thompsonville. The building was funded by insurance money after the school was destroyed by fire and grants from the Grand Traverse Band of Ottawa and Chippewa Indians and the International Order of Odd Fellows. The Rebekahs donated kitchen supplies for the new community center which is used frequently for meetings and a variety of community activities.

The fire department is supported by a millage. The department pays for all training of 17 volunteer firefighters who put in long hours on their own time to stay on top. They have monthly meetings and conduct daily checks to keep all equipment in excellent operating condition. This diligence and dedication earns the fire department a top insurance rating from the ISO. They have a Mutual Aid agreement with all of Benzie County and neighboring Cleon Township in Manistee County. The firefighters respond whenever and wherever their help is needed.

The days of horse-drawn fire wagons transitioned to gas and diesel engine rigs to fight fires. The fire department has had GMC and Chevy Engines, various Tankers and some 6x6 Army trucks. A 2012 Ford Rescue Mini Pumper Brush Truck recently joined the fire equipment fleet which includes a 2004 International Engine, a 1984 Chevy Engine and a 1984 Ford Tanker. The Thompsonville Fire Department responds to an average of 72 calls from 911 each year. It also assists the Thompsonville Ambulance Service on motor vehicle accidents. The station is located on Lincoln Avenue at Second Street, and its call number is Station 8. Volunteer firefighters are a vital asset to the community, and they are greatly appreciated for their dedication and valued service.

Emergency

The Thompsonville ambulance service was started in 1976 as a Basic Life Support Service (BLS). Benzie County sold the Village of Thompsonville a 1971 Cadillac for one dollar to use as an ambulance. Through fundraisers and donations the Village then purchased a 1978 Chevy Cube ambulance. In 1991, a 1986 Ford Cube ambulance was acquired using revenue from ambulance runs and fundraisers. Thanks to a county millage, the Village bought a 1997 Ford ambulance which service today as a backup ambulance to the main rig, a 2005 Ford ambulance also funded by a millage. The 1986 Ford Cube was donated by the Village to its fire department which uses it for their equipment. The ambulance call letters are 11A.

The ambulance service's first garage was one stall in the old firehouse building. A new fire station was built by volunteers in 1997 on Lincoln Avenue at Second Street. It provided two bays for ambulances, four bays for fire trucks, a community center and the Village offices building.

Top-notch service is provided by six emergency medical technicians and two medical first responders who are all volunteers and a vital part of the community. The EMTs and MFRs take refreshers courses regularly to ensure the Village is able to renew its license every three years. All personnel donate their time to stay current on training skills. The service pays for continuing training needs.

The ambulance service is self-supporting on revenue generated from runs which average over 300 calls to 911 each year. Crystal Mountain Resort generates a significant amount activity in the winter months. A generous donation was used to purchase the ambulance service's first automated external defibrillator. They and Weldon, Colfax, Cleon and Springdale Townships have also donated funds for training of new personnel.

The Thompsonville ambulance has Mutual Aid with Benzie and Manistee Counties and contracts for Advanced Life Support (ALS) intercept agreements with Benzie, Blair, North Flight and West Shore. Its coverage area in Benzie County is Weldon, Colfax, and Joyfield (partial) Townships and Cleon and Springdale Townships in Manistee Count. As a Basic Life Support (BLS) ambulance, the volunteers cover 144 square miles.

Personnel meetings are held each month and daily rig checks ensure ambulances are in top-running condition. The service always passes the annual state inspection in good standing. The Thompsonville Ambulance Service continues to grow with its community.

Civic Amenities - Emergency Services Picture below (left to right) include: Preston Wells; Jim Salois; Gil Krause; Tim Crest; Ron Robinson; and Howard Smith



Police

The Benzie County Sheriff's Office serves the Greater Thompsonville Area. Services are funded by a county millage and include emergency dispatch of police, fire, EMS (Communications Division); handling of accident reports, CCW applications, license to purchase and registration of handguns and issuance of free gun locks (Records Division); criminal investigations, School Resource Officer and DARE (Detective Bureau); road and highway patrols, marine and snowmobile patrols, issuing citations, criminal investigations and serving civil process (Patrol Division); processing and supervision of arrested or incarcerated persons by the Sherriff's Office (County Jail); and enforcement of county and state animal care laws (Animal Control Department). The non-profit Animal Welfare League of Benzie County administrators an adoption program for dogs and cats, provides emergency medical treatment to found sick or injured animals and provides an educational "Pet Responsibility" program for elementary schools. The Michigan State Police also serve the area from a substation located in the nearby village of Honor.

Civic and Cultural Amenities

Post Office

The Greater Thompsonville Area is served by the United States Postal Service, located on Thompson Avenue in the Village. The post office is an important social and functional asset to the community and all efforts should be focused to keep the existing (or future) post office in the downtown area.

Library

The Betsie Valley District Library is also located on Thompson Avenue in the Village. The library is equipped with three computers (all with internet access) and an extensive book, magazine, audio book, DVD and video collection. A variety of programs are offered throughout the year for both children and adults. The library is generously supported by the *Friends of the Betsie Valley District Library*, a 501(c)(3) organization. The Friends group sponsors a fundraising halfmarathon/10K/5K run/walk every fall for the library and also established an Endowment Fund to help ensure its future. The community-supported library operates without millage funding.

Civic Amenities - Post Office



Civic Amenities - Library



Schools

Children of the Greater Thompsonville Area are served by the Benzie County Central Schools. The geographical area of the school district is quite large. The school system (home of the Huskies) consists of one high school, one middle school, and four elementary schools. The nearest school to the Greater Thompsonville Area is Betsie Valley Elementary near the intersection of M115 and South Thompsonville Highway.

Trails

One of the community's best assets, the Betsie Valley Trail is a non-motorized trail that runs right through Weldon Township and the Village of Thompsonville. A former rail line, the 22-mile trail extends from Thompsonville, through Elberta and Beulah to Frankfort. In the winter snowmobiles are allowed on those portions of the trail that run from Thompsonville to Beulah (13 miles). The trail is owned by the Michigan Department of Natural Resources (MDNR) but is operated and maintained by Benzie County. Support for the trail is also directed by the *Friends of the Betsie Valley Trail*, a non-profit organization. The Platte River Snowmobile Trail (MDNR) runs north from Lindy Road on Thurman through the Pere Marquette State Forest via seasonal roads, trails and easements. The trail serves Benzie County and neighboring counties.

Parks

There are three formal parks in the Greater Thompsonville Area, each within the Village. Max Bargerstock Field is equipped with two softball fields, one of which is equipped with lights for night play. The Village has a campground (Sharp Park) with electricity and water at some sites located just east of the downtown area. It also has a small park at Lincoln Road and Third Street. This park has a pavilion, playground equipment, basketball courts and tennis courts. Future plans include developing a skate-park.

Airport

The Thompsonville Airport provides two runways for small, light-weight aircraft. The east/west runway is paved (with lights) and the north/south runway is grass. The airport, located just west of the downtown area and conveniently located next to Crystal Mountain, is owned and managed by the Village. Hangar lots are available for lease. The airport is often used by remote-control clubs (for remote-control planes).



Civic Amenities: Parks - Max Bargerstock Field



Civic Amenities: Airport -Thompsonville Airport



Natural Features

Topography

Outside the "north hills," the topography of the Greater Thompsonville Area is relatively flat. These hills are located on South Thompsonville Highway, near Shenburn Road. There are also significant hills in the southern portions of the area. Most notably, areas around Crystal Mountain have significant hillside features - Crystal Mountain has a vertical drop of 375 feet. The "Turtle Lake hills" north of Wallin are also significant. Contour elevations for the Greater Thompsonville Area are depicted in *Map 5*.

Watercourses

As previously mentioned, one of the most prominent natural features in the community is the Betsie River. According to the Michigan Department of Natural Resources, the stream originates at Green Lake near the village of Interlochen and flows in a westerly direction to its outlet into Betsie Lake and Lake Michigan near Elberta and Frankfort. A large part of the river lies within the boundaries of the Pere Marquette and Betsie River State Forests and flows through the Betsie River State Game Area near its mouth.

The Betsie River drains a surface area of approximately 165,800 acres and includes about 93 linear miles of streams, 52 miles of which is main stream. Colfax Township maintains the Grass Lake State Forest Campground at the Grass Lake Dam. Located on the Betsie River, this rustic campground has 15 sites for tents and small trailer use, a day use pavilion, fire rings and picnic tables, a DNR boat launch to access Grass Lake and rustic hiking trails. The privately owned Betsie River Campground and Canoe Livery is located about a mile west of the Village.

Weldon Township operates and maintains the Betsie River Day Use Park and Betsie River access site located on Wolfe Road just outside the Village. The Day Use facility was purchased and constructed with funds from the Michigan Land Trust after the 1989 spring washout of the Thompsonville Dam and subsequent removal of the structure. This facility includes a wooden timber bridge, toilet facility and parking area with a handicap access ramp to a landing site on the bank of the Betsie River. The Day Use Park was built with Natural River guidelines to protect the Betsie and provide an example of proper greenbelt stream bank management. The facility was operated by the MDNR at the beginning and was turned over to Weldon Township with a yearly lease until this past year when the MDNR and Weldon Township entered into a 15-year lease agreement for the operation and maintenance of the park. Watercourse - Betsie River



Betsie River Designations - The Betsie River has been designated by the Michigan Department of Natural Resources as a "Natural Wild and Scenic River." Therefore, areas along the river are subject to special zoning regulations designed to preserve and protect the natural integrity of the river.

Forest Land

As previously discussed, there are over 25,000 acres of forest land within the Greater Thompsonville Area. Most of these forested acres are located in Colfax and Weldon Townships and are part of the Pere Marquette State Forest. Woodlands are not only valuable as wildlife habitat but also for aesthetic enjoyment. Woodlands also moderate certain climate conditions, such as flooding and high winds, by protecting watersheds from siltation and soil erosion caused by storm water runoff or wind. Woodlands can also improve air quality by absorbing certain air pollutants, as well as buffer excessive noise generators. Future development projects should be laid out and designed so as to incorporate existing woodlands to the maximum extent feasible. The location of forest lands in the Greater Thompsonville Area are shown on *Map* 6.

Conservation Areas

In an effort to guide future conservation efforts and establish criteria that targets specific parcels for conservation, the Grand Traverse Regional Land Conservancy has identified areas throughout the Greater Thompsonville Area that are acceptable for conservation easements. These areas include natural areas and lands devoted to agriculture. The identification of these potential conservation areas can help guide the three local governments in future planning efforts. *Map 7* illustrates the potential conservation easement areas.

Wetlands

Wetlands are an important, though commonly overlooked, natural resource which provide both aesthetic and functional benefits. Through the years, over 70 percent of Michigan's wetlands have been destroyed by development and agricultural activities. Therefore, Michigan enacted the Goemaere-Anderson Wetland Protection Act (Michigan Public Act 203 of 1979) to protect the remaining wetlands.

The wetland act authorizes the Michigan Department of Natural Resources (MDNR) to preserve certain wetland areas. The MDNR may require permits before altering regulated wetlands and may prohibit development in some locations. The MDNR defines wetlands as follows:

Land characterized by the presence of water at a frequency and duration sufficient to support, and that under normal circumstances does support, wetland vegetation or aquatic life and is commonly referred to as a bog, swamp, or marsh and which is any of the following:

Forest Land - There are numerous Forest lands within the Greater Thompsonville Area.



- o Contiguous to the Great Lakes or Lake St. Clair, an inland lake or pond, or a river or stream.
- Not contiguous to the Great Lakes, an inland lake or pond, or a river or stream; and more than five acres in size; except this subdivision shall not be of effect, except for the purpose of inventorying, in counties of less than 100,000 population until the department certifies to the commission of natural resources it has substantially completed its inventory of wetlands in that county.
- Not contiguous to the Great Lakes, an inland lake or pond, or a river or stream; and five acres or less in size if the department determines that protection of the area is essential to the preservation of the natural resources of the state from pollution, impairment, or destruction and the development has so notified the owner; except this subdivision may be utilized regardless of wetland size in a county in which the above subdivision is of no effect; except for the purpose of inventorying, at the time.

Among the criteria used by the MDNR when conducting a wetland determination are:

- Presence of standing water (at least one week of the year).
- Presence of hydric soil types that are saturated, flooded, or ponded sufficiently to favor wetland vegetation (usually black or dark brown).
- Predominance of wetland vegetation/plant material, or aquatic life, such as cattails, reeds, willows, dogwood, elderberries, and/or red or silver maple trees.
- o Presence of important or endangered plant or wildlife habitat or a rare ecosystem.
- The area serves as an important groundwater recharge.
- Size and location minimum size to be state regulated is five acres unless the wetland is contiguous to a lake, pond, river or stream, or is considered to be "essential to the preservation of natural resources of the state."

The determination that a site contains a regulated wetland can have several consequences:

- The MDNR may issue a permit to fill the wetland
- The MDNR may require mitigation, such as replacing the wetlands (sometimes this involves increasing the overall on-site wetland acreage by two or three times).
- The MDNR may prohibit development in the wetland area, if it is determined that there is a "prudent" alternative.

There are roughly 9,984 acres of wetlands in the Greater Thompsonville Area, primarily in the eastern portions of Colfax Township. Wetlands are shown on *Map 8*. Local wetland protection can help preserve these important resources and can be achieved in a variety of ways. Foremost is ensuring that developers have received any necessary MDNR reviews or made permit applications prior to final action on proposed projects.

Soils

The Greater Thompsonville Area is comprised of six different soils associations: (1) Coloma-Spinks Association; (2) Kaleva-Grattan Association; (3) Covert-Pipestone-Adrian Association; (4) Kaleva-Benona Association; (5) Adrian-Houghton Association and (6) Fern-Spinks-Tekenink Association. *Map 9* depicts the soil types present within the Greater Thompsonville Area.

- **Coloma-Spinks Association**. These soils are somewhat excessively drained to well drained and occupy very steep lands. Soils within this association are located along the Betsie River, near Thompsonville.
- **Kaleva-Grattan Association.** These soils are level to gently sloping, excessively drained sandy soils on outwash plains and moraines. Soils within the association are located in the western, central and far eastern portions of the community.
- **Covert-Pipestone-Adrian Association.** These soils are somewhat poorly drained to poorly drained and occupy both level and undulating land. These soils are found along portions of the Betsie River in Weldon Township and large areas throughout Colfax Township.
- **Kaleva-Benona Association.** These soils are excessively drained sandy soils on level to very steep land on outwash plains and moraines. These soils are found in small pockets in the central and far eastern portions of the community.
- Adrian-Houghton Association. These soils are very poorly drained, mucky soils on outwash plains, lake plains, moraines, till plains and floodplains, on level land. These soils are found in small pockets in the eastern portion of the community
- **Fern-Spinks-Tekenink Association.** These soils are moderately well drained loams, on very steep lands. These soils are found in a small pocket on the southern edge of the community.