



INDIANFIELDS TOWNSHIP

Master Plan



Adopted:

Indianfields Township Master Plan 2020-2025



INDIANFIELDS TOWNSHIP

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Chapter 1. Introduction

DESCRIPTION OF PLANNING PROCESS

The news is often filled with stories of adjacent Townships, cities, and villages fighting over development and land use issues. However, Indianfields Township, Almer Township, and the Village of Caro have formed a partnership, continuing a process begun 30 years ago to work together to plan the future development of the area.

In 1980, the village and Townships formed the ICA (Indianfields-Caro-Aimer) Planning Commission and jointly developed plans for each unit. In 1995, the three communities again joined together to hire Rowe Engineering, Inc. to assist them in preparation of separate land use plans for each of the communities based on the plan prepared in 1980, as well as updating each municipality's zoning ordinance. This plan was developed at the time as a result of those efforts. This current updating of the plan is a continuation of those efforts. Beginning in March 2011, the Indianfields Township Planning Commission began working to review and update their Land Use Plan. The Planning Commission met regularly throughout the planning process to update each other on the status of the planning process and discussed relevant planning issues.

While closely linked geographically, the communities of Indianfields Township, Almer Township, and the City of Caro have different land use characteristics. Approximately one third of Indianfields Township is covered by state-owned forested land; Almer Township is primarily agricultural in nature; and Caro is urban and serves as the Tuscola County seat. The original process ensured cross-boundary cooperation among the three communities and encouraged consistency between the Goals and Policies and Future Land Use sections of the Land Use Plan.

Although this plan is based on the 1980 plan, new elements have been added. In 1995, the Community Description section of the plan was updated using more recent information on population, housing, land use, sewer system, and transportation. The updated information was compared to data from the previous plan whenever possible to illustrate development trends since 1995. In 2012, amendments were made to incorporate water quality protections based on Michigan State University's Planning and Zoning Center.

The updated Community Description information was presented to members of the general public at a Public Input Session in March 2012. The Goals and Policies in the 1995 plan remain the same and were updated based on this information and development trends that have occurred in the same area since 1995. These Goals and Policies were designed to help correct existing problems or prevent potential problems in the future. For example, the Industrial Goals were updated to reflect the importance of establishing industrial uses in the new industrial park, which was developed in the City of Caro since the original plan was adopted.

Based on the updated Goals and Policies, the Planning Commission continued a Future Land Use Plan, including a classification system, location criteria, and future land use map. The Future Land Use Plan illustrates, among other things, commercial uses in established commercial areas along State highways



Figure 1: Picture of Farm Equipment

M-81 and M-24 near the city. This classification reflects the importance of infilling commercial development, rather than extending the length of the commercial area further away from the city limits.

Drawing on the information contained in the Future Land Use Plan, the Planning Commission reviewed the 1995 plan which included potential changes in the Indianfields Township Zoning Ordinance. The Planning Commission also updated methods of monitoring and updating the plan to ensure that it remains effective and relevant as time goes on.

In 2019, the Township started to conduct a modest update to the master plan. Base information that was updated include changes to the community descriptions, existing land use, recreation facilities, agriculture, commercial, and industrial. The base information that was updated helped to show the new baseline for the basis of the planning decisions for the township. The Planning Commission reviewed the goals, objectives, and policies to ensure the master plan met the current vision for the community. The future land use map was updated to accommodate the need for more industrial and commercial property. Lastly, the implementation plan was updated to help refine the modified goals and objectives to implement the vision for the community.

Chapter 2. Community Description

POPULATION

The population characteristics of a community are an important consideration when determining its land use needs. These characteristics include age, sex, household size and composition, race, and population growth. A study of a community's population characteristics provides a rational basis for projecting future changes in the population.

Age

Table 2-1 shows the breakdown of age groups in Indianfields Township. About 21.9 percent of Township residents were 19 years of age or younger in 2017. This is comparable to Almer Township (20.9 percent) and the City of Caro (21.1 percent). Indianfields' age distribution is very consistent with Almer Township, the City of Caro, and the State of Michigan. Rarely does Indianfields differ by more than a few percentage points in any age group.

	Indianfields Township		Almer Township		City of Caro		Tuscola County		State of Michigan	
	#	%	#	%	#	%	#	%	#	%
Under 5 Years	111	4.3%	109	5%	157	3.8%	2,703	5%	571,999	5.8%
5–9 Years	82	3.2%	91	4.1%	213	5.2%	2,981	5.6%	601,601	6.1%
10–14 Years	183	7.1%	124	5.6%	210	5.1%	3,421	6.4%	634,551	6.4%
15–19 Years	189	7.3%	136	6.2%	286	7%	3,471	6.5%	674,265	6.8%
20-24 Years	152	5.9%	108	4.9%	286	7%	3,061	5.7%	723,180	7.3%
25-34 Years	269	10.4%	254	11.5%	497	12.1%	5,709	10.7%	1,219,595	12.3%
35-44 Years	315	12.2%	227	10.3%	350	8.6%	6,059	11.3%	1,176,764	11.9%
45-54 Years	414	16.1%	236	10.7%	607	14.8%	7,769	14.5%	1,370,424	13.8%
55-59 Years	233	9%	195	8.9%	278	6.8%	4,383	8.2%	725,670	7.3%
60-64 Years	254	9.9%	201	9.1%	283	6.9%	3,927	7.3%	652,286	6.6%
65-74 Years	224	8.7%	255	11.6%	479	11.7%	5,856	10.9%	909,353	9.2%
75-84 Years	101	3.9%	218	9.9%	290	7.1%	3,225	6%	909,353	4.6%
85 years and over	50	1.9%	48	2.2%	155	3.8%	1,004	1.9%	206,383	2.1%
Median Age	44.7		47		46.8		44.1		39.6	

Source: American Community Survey, 2013-2017

Table 2-1 also shows that the median age in Indianfields Township was 44.7 years in 2017. This is consistent with Almer Township and the City of Caro but considerably higher than the State of Michigan as a whole.

Sex

Table 2-2 shows that about 49.9 percent of Indianfields Township residents were male compared to 50.1 percent female in 2017. This is consistent with the state and national trends. Generally, the

	MALES	FEMALES
Indianfields Township	49.9%	50.1%
Almer Township	49.9%	50.1%
City of Caro	45.7%	54.3%
Tuscola County	50.2%	49.8%
State of Michigan	49.2%	50.8%

Source: American Community Survey, 2013-2017

proportion of females in a community is slightly higher than males, as women tend to live longer than men. The higher the share of elderly is in a community, the higher the proportion of females to males. Indianfields’ sex ratio is consistent with the county and state.

Household Composition

The term "household composition" is used to describe the general structure of households in a community. The Bureau of the Census divides households into several categories:

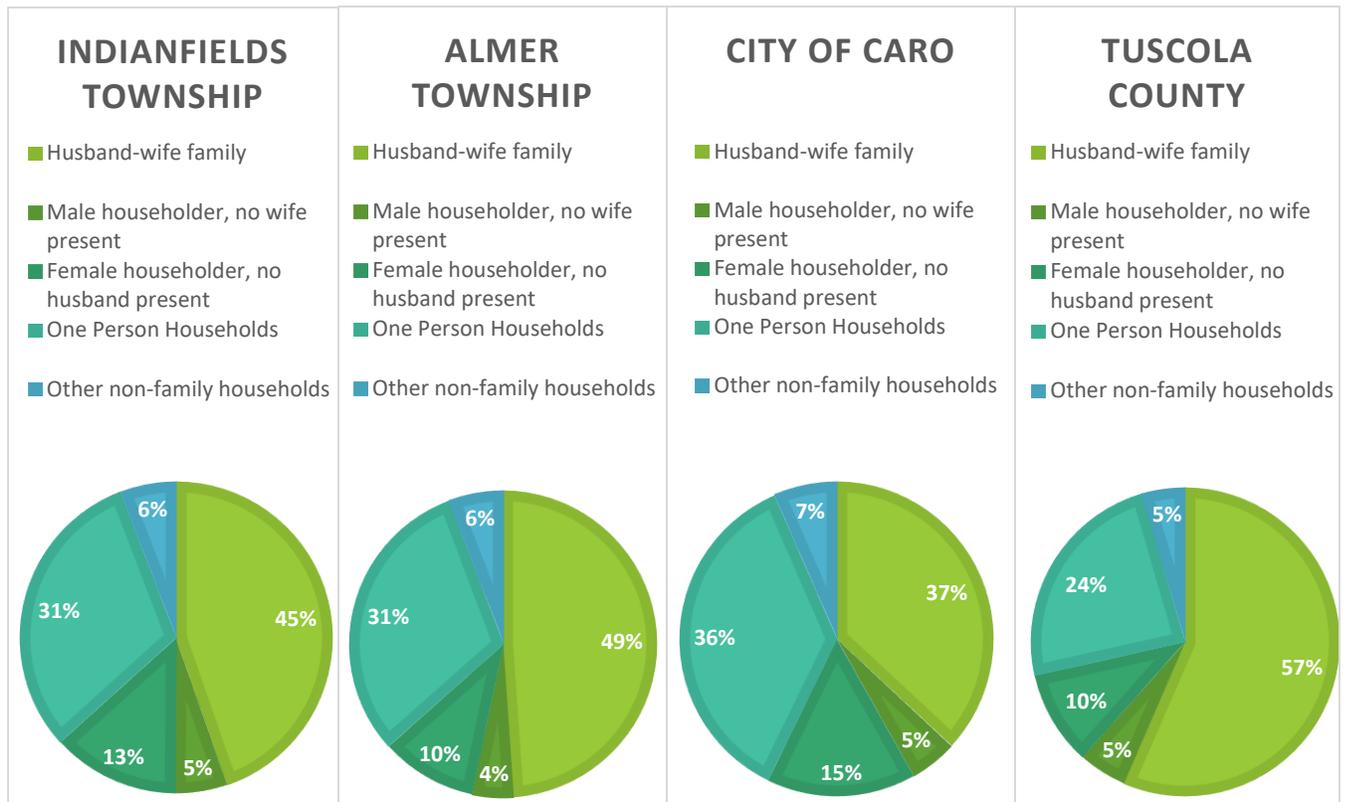
- Married Couple Families composed of both spouses, with or without children.
- Single Head of Household Families composed of one parent, with children or other relative.
- One-Person Household, 65+ years old.
- One-Person Household under 65 years of age.
- Other Non-Family Households composed of unmarried couples and people sharing housing.

Table 2-3 shows that only 44.7 percent of households in Indianfields Township were made up of married couple families in 2010. While this figure is higher than the City of Caro (36.9 percent), it is lower than Almer Township (48.9 percent). Most of the housing in Almer Township is made up of single-family homes. While suitable for married couple households, single-family homes are often inappropriate or too expensive for single-parent or single-person households. In Indianfields Township, a relatively large share of available housing is low-cost housing such as apartments and mobile homes, which are more suitable for single-parent or single-person households.

	Indianfields Township	Almer Township	City of Caro	Tuscola County
Married couple family	44.7%	48.9%	36.9%	56.5%
Male householder, no wife present	5.4%	4.4%	4.9%	5.1%
Female householder, no husband present	13.2%	10.1%	15.4%	9.9%
One-person households	30.9%	30.9%	36.3%	24%
Other non-family households	5.8%	5.7%	6.5%	4.5%

Source: U.S. Census, 2010

Figure 2: Composition of Households



Source: U.S. Census, 2010

Median Age

Table 2-4 shows that the median age of Indianfields Township has steadily increased from 33.7 years in 1990 to 40.7 years in 2010. This is not only a statewide but a national trend, due to the aging of the post-World War II "Baby Boom" population. The aging population will drastically increase the elderly segment of the population which will place increasing demands on services and housing for the elderly, while also decreasing the demand for school services as this generation of "Baby Boomers" enters their retirement years over the next 10 to 20 years.

Year	Indianfields Township	Almer Township	City of Caro	Tuscola County	State of Michigan
1990	33.7	37.7	33.7	33.0	32.6
2000	37.4	40.6	35.3	37	35.5
2010	40.7	45.3	39.6	41.7	38.9

Source: U.S. Census, 1990, 2000, 2010

Household Size

Changes in household size are often related to the median age of the population. As the population grows older, children reach adulthood and move out of their homes to form their own households. This has the effect of increasing the number of households, but does not increase the population. For example, a household consisting of two parents and two children will, over time, become one household

consisting of the two parents and two additional households of one child each. Other factors that affect household size include economic conditions and general society values. During difficult economic times, children tend to remain at home longer. This tends to keep household size up. A societal trend is that generally families are having fewer children and later in life. Since the beginning of the twentieth century, the country has evolved from an agricultural-based rural society into an industrial, urban society. The advantages of having larger families have disappeared over time. The rising costs of raising and educating children has resulted in a steady decline in average household size since the turn of the century.

Table 2-5 shows that the average household size in Indianfields Township decreased from 2.47 in 1990 to 2.34 in 2010. The average household size in Indianfields Township in 2010 was higher than the City of Caro (2.22). Generally, households are smaller in urban areas where a wider range of housing types such as apartments and mobile homes are available. There are proportionately more apartments and

Table 2-5: Household Size 1990-2010

	1990	2000	2010
Indianfields Township	2.47	2.39	2.34
Almer Township	2.58	2.54	2.3
City of Caro	2.34	2.59	2.22
Tuscola County	2.79	2.65	2.52
State of Michigan	2.66	2.56	2.49

Source: U.S. Census, 1990, 2000, 2010

mobile homes in the City of Caro than in Indianfields Township. This low-cost housing is generally more suitable for smaller, one-income households. They are usually located near the downtown, within walking distance to daily needs and services such as shopping, restaurants, etc. The need to own an automobile is therefore less, which is another reason why those households with lower incomes tend to live in urban areas.

More intensive residential development in rural areas is often constrained by the limits of municipal services such as water and sewer. Single-family homes are therefore a prevalent land use in rural areas such as Indianfields Township, while multi-unit residential development is usually found in or adjacent to more urban areas.

Disability

Table 2-6 shows that about 9.9 percent of Indianfields Township residents have a self-care difficulty and 10.4 percent have an independent living difficulty. Indianfields Townships has a higher percent of residents experiencing independent living difficulty than both the City of Caro (9.3 percent) and Almer Township (10 percent). This high proportion of persons with mobility or self-care limitations is explained by the location of the Caro Regional Center in the Township. This facility provides health care and training for people with disabilities. Many facility users live near the Regional Center in non-institutional environments in Indianfields Township and use the services provided on a regular basis.

Table 2-6: Disabilities, 2017

	Indianfields Township		Almer Township		City of Caro		Tuscola County		State of Michigan	
	#	%	#	%	#	%	#	%	#	%
Persons under 65 years										
With a hearing difficulty	44	3.5%	25	2.0%	145	6.3%	1,140	3.9%	150,766	6.1%
With a vision difficulty	63	4.7%	10	0.8%	105	4.5%	801	2.8%	133,899	2.7%
With a cognitive difficulty	315	33%	170	18.5%	320	19.1%	3,299	17.3%	419,366	10.6%
With an ambulatory difficulty	212	15%	85	6.9%	225	9.7%	2,685	9%	387,662	6.9%
With a self-care difficulty	129	9.9%	101	12.1%	112	7.1%	1,209	4.7%	160,715	3.4%
With an independent living difficulty	168	10.4%	122	10%	216	9.3%	1,876	5.9%	284,371	4.7%
Persons 65 years and over										
With a hearing difficulty	62	18%	104	20.0%	152	19.9%	1,758	18.1%	232,921	15.2%
With a vision difficulty	31	9.0%	14	2.7%	68	8.9%	508	5.2%	89,157	5.8%
With a cognitive difficulty	58	16.8%	38	7.3%	111	14.6%	827	8.5%	133,225	8.7%
With an ambulatory difficulty	68	19.7%	119	22.8%	216	28.3%	2,260	23.2%	340,178	22.1%
With a self-care difficulty	37	10.7%	37	7.1%	103	13.5%	594	6.1%	119,561	7.8%
With an independent living difficulty	68	19.7%	52	10%	181	23.8%	1,266	13%	223,437	14.5%
Total	1,255	-	877	-	1,954	-	18,223	-	2,675,258	-

Source: 2013-2017 American Community Survey

As the population of Indianfields Township ages, the proportion of residents with mobility or self-care limitations will also increase. The provision of services for people with disabilities will be an important planning consideration in the future.

Race

Table 2-7 shows that Indianfields Township is racially homogeneous, with 96 percent of the population being white. This figure was not as

	Table 2-7: Race, 2017					
	White		Black		Other Race	
	#	%	#	%	#	%
Indianfields Township	2,475	96%	96	3.7%	6	.2%
Almer Township	2,156	97.9%	29	1.3%	17	.8%
City of Caro	3,909	95.6%	24	.6%	106	2.6%
Tuscola County	51,718	96.5%	641	1.2%	290	.5%
State of Michigan	7,813,199	78.7%	1,374,515	13.8%	291,890	2.9%

Source: American Community Survey, 2017

high as either Almer Township (97.9 percent) or Tuscola County (96.5 percent). The lower proportion of whites is likely due to the Minimum Security Prison in Indianfields Township. Generally, correctional facilities are racially diverse. In this case, the prison would draw inmates from throughout the State of Michigan, including urban areas. This explains the higher proportion of blacks in Indianfields Township (3.7 percent) than Almer Township (1.3 percent) and the City of Caro (0.6 percent).

Income and Occupation

Table 2-8 shows that median household income was \$46,250 in Indianfields Township in 2017. This was higher than the City of Caro (\$31,909) but lower than Almer Township (\$48,125). One of the reasons for the difference in income was income type.

Indianfields Township	Almer Township	City of Caro	Tuscola County	State of Michigan
46,250	48,125	31,909	45,495	52,668

Source: American Community Survey, 2017

Table 2-9 shows a breakdown of occupations in 2017. Only 4.1 percent of workers in Indianfields Township had finance jobs in 2017, compared to 4.6 percent in Almer Township. Since these jobs are generally the highest paying, this difference is another reason for a higher median income in Almer Township than Indianfields Township.

Occupation	Indianfields Township		Almer Township		City of Caro		Tuscola County		State of Michigan	
	#	%	#	%	#	%	#	%	#	%
Agriculture, forestry, fishing and hunting, and mining	16	1.4%	72	8.2%	50	3%	913	4%	54,586	1.2%
Construction	66	5.8%	70	8%	82	4.9%	1,794	7.8%	228,820	5.1%
Manufacturing	153	13.5%	64	7.3%	214	12.8%	4,029	17.5%	831,697	18.4%
Wholesale trade	12	1.1%	21	2.4%	78	4.7%	497	2.2%	108,481	2.4%
Retail trade	112	9.9%	76	8.7%	189	11.3%	2,853	12.4%	504,181	11.1%
Transportation and warehousing, and utilities	29	2.6%	66	7.6%	70	4.2%	1,354	5.9%	191,670	4.2%
Information	21	1.8%	18	2.1%	36	2.2%	281	1.2%	70,046	1.5%
Finance and insurance, and real estate and rental and leasing	47	4.1%	40	4.6%	57	3.4%	891	3.9%	248,678	5.5%
Professional, scientific, and management, and administrative and waste management services	139	12.2%	74	8.5%	53	3.2%	1,260	5.5%	428,576	9.5%
Educational services, and health care and social assistance	329	28.9%	254	29.1%	635	38%	5,766	25.1%	1,063,347	23.5%
Arts, entertainment, and recreation, and accommodation and food services	91	8%	34	3.9%	86	5.1%	1,520	6.6%	426,853	9.4%
Other services, except public administration	71	6.2%	57	6.5%	61	3.7%	1,145	5%	211,081	4.7%
Public Administration	51	4.5%	28	3.2%	59	3.5%	684	3%	156,858	3.5%
Total	1,137		874		1,670		22,987		4,524,874	

Source: American Community Survey, 2013-2017

Table 2-10 shows income levels in 2017. About 65.2 percent of households in Indianfields Township earned \$35,000 or more in 2017, compared to 64.7 percent in Almer Township and 61.9 percent in the City of Caro. Also, about 6.3 percent of households earned less than \$10,000 in 2017, compared to only 3.7 percent in Almer Township and 5.6 percent in the City of Caro.

	Indianfields Township		Almer Township		City of Caro		Tuscola County		State of Michigan	
	#	%	#	%	#	%	#	%	#	%
Total Households	912	100%	948	100%	1,059	100%	21,624	100%	3,888,646	100%
Less than \$10,000	57	6.3%	35	3.7%	59	5.6%	1,460	6.8%	284,882	7.3%
\$10,000 to \$14,999	50	5.5%	46	4.9%	40	3.8%	1,255	5.8%	193,880	5.0%
\$15,000 to \$24,999	107	11.7%	129	13.6%	94	8.9%	2,529	11.7%	411,782	10.6%
\$25,000 to \$34,999	103	11.3%	125	13.2%	210	19.8%	2,638	12.2%	403,426	10.4%
\$35,000 to \$49,999	172	18.9%	157	16.6%	170	16.1%	3,980	18.4%	549,638	14.1%
\$50,000 to \$74,999	158	17.3%	194	20.5%	197	18.6%	4,301	19.9%	720,755	18.5%
\$75,000 to \$99,999	75	8.2%	102	10.8%	83	7.8%	2,527	11.7%	474,850	12.2%
\$100,000 to \$149,999	138	15.1%	94	9.9%	150	14.2%	2,025	9.4%	500,924	12.9%
\$150,000 to \$199,999	18	2.0%	44	4.6%	45	4.2%	594	2.7%	183,124	4.7%
\$200,000 or more	34	3.7%	22	2.3%	11	1.0%	315	1.5%	165,385	4.3%

Source: American Community Survey 2013-2017

Population Growth

Table 2-11 illustrates growth in Indianfields Township from 1960 to 2010. The table shows that the population growth experienced in Indianfields Township was significantly more than what took place in Tuscola County as a whole over the same time period. Population growth was gradual but steady up to 1980 with a decrease in population between 1970 and 1990. Then, during the 1990s, the population expanded from 3,211 to 6,392 before declining a little to 6,048 in 2010.

	YEAR						
	1960	1970	1980	1990	2000	2010	Growth Rate
Indianfields Township	3,363	3,387	3,271	3,211	6,392	6,048	79.8%
Almer Township	1,963	2,394	2,720	2,063	3,023	3,101	53.9%
City of Caro	3,534	3,701	4,317	4,054	4,145	4,229	17.2%
Tuscola County	43,305	48,603	56,961	55,498	58,266	55,729	34.5%

Source: U.S. Census, 1960, 1970, 1980, 1990, 2000, 2010

Population Projections

Population projections provide a base from which to estimate demands for future housing and land. Projecting future population is an inexact science, particularly when the projections involve a relatively small existing population base. It should be noted that population projections for a community the size of Indianfields Township has limited value, as the actions of only a small number of property owners can impact the overall growth rate. For example, a subdivision or mobile home development can easily double the normal growth rate. For this reason, population projections should be monitored for unexpected trends.

For the purpose of this plan, ROWE has prepared three alternative population projections. These projections can be used as a “range” of anticipated future population. In any case, the Township should be aware of the tenuous nature of population projections. Changes in population and housing are key indicators that should be examined as the plan is maintained.

Population Projection Method One

Population projection method one uses an average of the population change over the last 20 years (46.9 percent per 10 years) and projects forward. One major drawback of this population projection method is that it captures a small window of time and assumes those micro trends will continue in the long term. Consequently, as Table 2-12 demonstrates, the abnormal population increase that Indianfields Township experienced in the 1990s resulted in a distorted projection that forecasts continued rapid growth.

Table 2-12: Population Projection Method One						
	1990	2000	2010	2020 Projection	2030 Projection	2040 Projection
Indianfields Twp	3,211	6,392	6,048	8,885	13,052	19,173
Almer Twp	2,063	3,023	3,101	3,861	4,807	5,984
City of Caro	4,054	4,145	4,229	4,318	4,408	4,501

Source: U.S. Census 1990, 2000, 2010

Population Projection Method Two

Population projection method two is an alternative to method one in which we use the average change in population over the past 50 years. This assumes that population growth trends tend to fluctuate and that a longer trend line is more accurate. The projection in Table 2-13 shows a growth rate of 27.42 percent over each 10-year period, resulting in a more gradual population growth than population projection method one.

Table 2-13: Population Projection Method Two						
	1970	2010	Average % change per decade	2020 Projection	2030 Projection	2040 Projection
Indianfields Twp	3,387	6,048	27.42%	7,706	9,819	12,511
Almer Twp	2,394	3,101	21.72%	3,775	4,594	5,592
City of Caro	3,701	4,229	6.75%	4,514	4,819	5,114

Source: U.S. Census 1990, 2000, 2010

Population Projection Method Three

The population projection portrayed by method three is achieved by assuming an average number of housing starts by decade and applying a vacancy rate. The remaining number of households is then multiplied by the average household size. It is assumed that the average household size will continue to decrease.

The average number of new homes has been reduced dramatically from 17.6 per year in the 1990s to 9.3 per year in the 2000s and less than 1 per year in the 2010s. For this population estimate, we are projecting the rate of new home construction to rebound slightly from the lows caused by the recession. We assume one new house per year from 2010 to 2020 and then a net increase of five houses per year

up to 2040. We also assume an average occupancy rate of 89.2 percent (2010 census) and a reduction of 0.05 from the average household size every ten years.

The results of these assumptions are in Table 2-14. It shows a gradual reduction in population over the next 30 years with a final population of 5,446 in 2040.

	2010 Census	2020 Projection	2030 Projection	2040 Projection
Household Size	2.34	2.29	2.24	2.19
Dwelling Units (DU)	2,678	2,688	2,738	2788
Occupied DU	2,389	2,398	2,442	2,487
Population	6,048	5,491	5,470	5,446

Source: U.S. Census 1990, 2000, 2010

Projected Household Size and Housing Demand

Year	Avg. Household Size
1990	2.47
2000	2.39
2010	2.34

As already discussed, the average household size in the United States has been decreasing since the turn of the twentieth century. This trend will continue as the "Baby Boom" segment of the population enters their retirement years. It can be assumed that the average household size in Indianfields Township will continue to decline by roughly 0.05 persons every 10 years. If the population of Indianfields Township continues to grow and

the average household size continues to decline, then it should be assumed that the demand for housing will continue to grow.

HOUSING

Housing is a basic necessity and is one of the principal non-agricultural uses of land in Indianfields Township. The provision of sites for adequate, affordable housing is an important public policy.

Housing Age

The quality and price of housing is affected by its age. This does not imply that older houses are always worth less than newer houses, or that older neighborhoods are not as aesthetically pleasing as newer neighborhoods. Generally speaking, older housing is less costly and more likely to be converted into multi-unit dwellings.

Table 2-16 shows that about 77.2 percent of the housing stock in Indianfields Township was built after 1960. This figure is higher than Almer Township (63.2 percent) and the City of Caro (61.6 percent). This high proportion of post-1960 housing in the townships is due to suburbanization, the movement of married couple households from urban to rural areas. This trend was due to a number of factors, including improvements in the freeway system, urban deindustrialization, and a general change in societal values and lifestyles. Suburbanization was strongest in Indianfields Township during the 1970s, when 30.8 percent of the housing stock existing in 2017 was constructed.

Table 2-16: Year Structure Built

Year	Indianfields Township		Almer Township		City of Caro		State of Michigan	
	#	%	#	%	#	%	#	%
2014 or later	0	0.0%	0	0.0%	0	0.0%	20,089	0.4%
2010 to 2013	4	0.4%	62	5.9%	0	0.0%	47,438	1.0%
2000 to 2009	93	9.0%	134	12.8%	181	8.6%	457,143	10.0%
1990 to 1999	176	17.0%	139	13.3%	166	7.9%	599,254	13.1%
1980 to 1989	102	9.9%	92	8.8%	74	3.5%	453,788	9.9%
1970 to 1979	318	30.8%	102	9.8%	566	26.8%	705,927	15.5%
1960 to 1969	104	10.1%	131	12.6%	313	14.8%	547,833	12.0%
1950 to 1959	78	7.6%	183	17.5%	261	12.4%	689,472	15.1%
1940 to 1949	74	7.2%	60	5.8%	129	6.1%	357,926	7.8%
Built 1939 or earlier	84	8.1%	140	13.4%	420	19.9%	689,330	15.1%

Source: American Community Survey, 2013-2017

The recession in Michigan during the late 2000s seems to have had an effect on construction in Indianfields Township. The proportion of homes built in Indianfields in the decade following the recession (.4 percent) is significantly less than the proportion of homes built in the 1970s (30.8 percent).

Housing Types

Table 2-17 shows that 79 percent of the housing units in Indianfields Township in 2017 were single-unit detached homes. This figure is considerably higher than the City of Caro (66 percent) but consistent with Almer Township (75.1 percent). Only 1.2 percent of the housing units in Indianfields Township were duplexes or larger, compared to only 8.2 percent in Almer Township and 19.1 percent in the City of Caro. This higher proportion of multi-unit dwellings in the city is due to the availability of water and sewer services, which are necessary for high-density residential uses. Also, the city has a higher proportion of older single-family homes, which are suitable for conversion into multi-unit dwellings. About 17.8 percent of housing units in Indianfields are mobile homes/trailers. This figure is higher than both Almer Township (14.4 percent) and the City of Caro (4.5 percent).

Table 2-17: Housing Types, 2013-2017

Year	Indianfields Township		Almer Township		City of Caro		Tuscola County		State of Michigan	
	#	%	#	%	#	%	#	%	#	%
1 Unit, Detached	816	79%	783	75.1%	1,3983	66%	20,048	82%	3,304,372	72.3%
1 Unit, Attached	21	2%	11	1.1%	8	0.4%	307	1.3%	211,705	4.6%
2 to 4 Units	0	0%	25	2.4%	95	4.5%	843	3.4%	225,038	5%
5 to 9 Units	12	1.2%	15	1.4%	149	7.1%	619	2.5%	191,398	4.2%
10 to 19 Units	0	0%	36	3.5%	8	0.4%	124	0.5%	163,853	3.6%
20 or More Units	0	0%	9	0.9%	150	7.1%	262	1.1%	229,917	5%
Mobile Home, Trailer, Other	184	17.8%	150	14.4%	95	4.5%	2,250	9.2%	240,784	5.3%
Boat, RV, Van, etc.	0	0%	0	0%	0	0%	3	0%	1,133	0%

Source: American Community Survey, 2013-2017

Housing Value

Housing value is a reflection of many factors, including:

- Age of housing
- Type of housing
- Neighborhood quality
- Determinants such as crime, employment opportunities, education system, etc.

Housing value directly affects the ability of individuals to own homes. Housing values also affect property taxes, which in turn affect revenues of local jurisdictions.

The high proportion of mobile homes in Indianfields Township effects housing value. Table 2-18 shows that the median value of homes in Indianfields Township in 2017 was \$99,500. This was higher than Almer Township (\$89,700), and much higher than the City of Caro (\$76,700). Generally, large single-family detached homes on large rural lots tend to have a higher value than other types of housing units. In Almer Township, 42.9 percent of housing units were valued at \$100,000 or higher, compared to 49.6 percent in Indianfields Township and 29.6 percent in the City of Caro.

	Less than \$50,000	\$50,000 to \$99,999	\$100,000 to \$149,999	\$150,000 to \$199,999	\$200,000 to \$299,999	\$300,000 or more	Median Value(\$)
Indianfields Township	161	227	200	72	87	23	99,500
Almer Township	159	299	159	73	74	38	89,700
City of Caro	268	492	271	7	33	9	76,700
Tuscola County	2,651	6,324	4,238	2,351	1,419	744	98,800
State of Michigan	392,550	593,012	524,665	450,723	437,614	361,592	136,400

Source: American Community Survey, 2013-2017

Housing Tenure

Table 2-19 shows that about 84.4 percent of the housing units were owner-occupied in 2017. This figure is higher than the City of Caro (59.6 percent) and consistent with Almer Township (84.6 percent). Again, this difference is due to the higher proportion of single-unit detached dwellings in Almer Township (75.1 percent) and Indianfields Township (79 percent) compared with the City of Caro (66 percent).

	Owner-Occupied		Renter-Occupied		Vacant*	
	#	%	#	%	#	%
Indianfields Township	770	84.4%	142	15.6%	121	11.7%
Almer Township	802	84.6%	146	15.4%	95	9.1%
City of Caro	1,080	59.6%	733	40.4%	297	14.1%
Tuscola County	17,727	82%	3,897	18%	2,832	11.6%
State of Michigan	2,760,156	71%	1,128,490	29%	679,554	14.9%

Source: American Community Survey 2013-2017.

* "Vacant" includes: Seasonal, Recreational, Occasional Use

Generally, single-family homes tend to be owner-occupied. The proportion of housing types that are duplexes or larger is higher in the City of Caro (19.1 percent) than in Indianfields Township (1.2 percent). Multi-unit dwellings tend to be renter-occupied since they are more suitable and less expensive for lower-income or single-parent households.

INFRASTRUCTURE

Sewer System

Some areas of Indianfields Township near the Caro city limits are serviced by the Caro Area Wastewater Treatment Plant. The plant, which was rebuilt in 2010, primarily served the City of Caro. The new treatment plant extended the service area to include more of Indianfields Township, Almer Township, and the Caro Regional Center. Sewage collected from the service area is treated at the plant to meet current effluent quality requirements prior to discharge into the Cass River. The current system, which was done in 2010, uses a concentric ring oxidation ditch with activated sludge which replaced the system that was installed in 1987. The City of Caro operates and administers the sewer plant for all system users.

The 2010 project was funded using \$7.5 million in Tuscola County Revenue Bonds. Presently, Indianfields Township and Almer Township each possess 10 percent of the total capacity of the system, while the City of Caro possesses 80 percent. Map 2-1 shows the Caro Area Wastewater Treatment Plant.

The new wastewater treatment plant is located on the existing 6.9-acre plant site in the City of Caro. The plant has a design average flow of 1.2 million gallons per day. It can be assumed that the facility can handle additional development. It is not known whether Indianfields Township's 10 percent of the system is at the same level of capacity as the City and Almer Township. Assuming 42 percent of Indianfields Township's system is available, the Township could handle an additional 50,000 gallons per day.

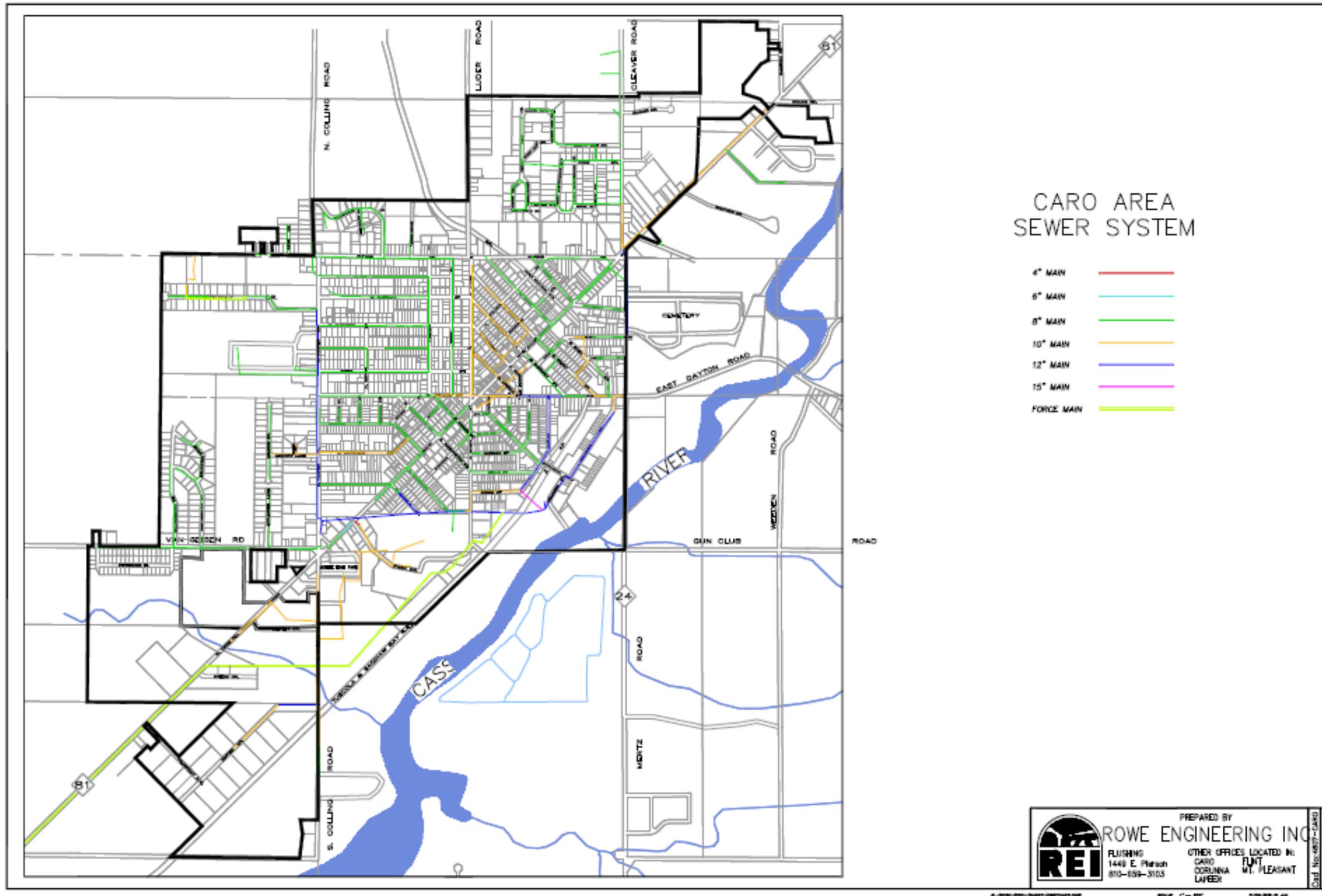
Water System

Most of the water needs in Indianfields Township are provided by individual wells. The City of Caro municipal water system has a limited number of users in Indianfields Township. It is city policy that any Township development requiring municipal water service must first be annexed by the village.

Recycling Programs

There is a Tuscola County Recycling Material Recovery Facility located at 1123 Mertz Road (M-24). Area residents can drop off such recyclables as newspaper, corrugated cardboard, glass, plastic, aluminum, steel/tin cans, polystyrene, and office paper at the facility. Tuscola County also has a used motor oil recycling program. Area residents can drop off up to 5 gallons at one time at the recycling facility.

Map 2-1: Caro Area Sewer System



NATURAL FEATURES

Topography

The dominant landforms in Tuscola County are a result of the Wisconsin Glaciation, which began its recession about 12,000 years ago and ended 6,000 years ago. A mantle of glacial drift remained behind as the ice melted and various topographic features were formed. This glacial drift is the parent material of the soils in Tuscola County.

Generally, Indianfields Township has varying topography, characterized by a rolling landscape that is heavily wooded and swampy in some areas.

Hydrology

The Cass River drains the southern two thirds of Tuscola County, including Indianfields Township. The Cass River flows through Indianfields Township, roughly bisecting it.



Figure 3: Picture of several birds of prey above wetland area.

Soils

Soils in Indianfields Township generally fall into four soils associations:

- *Guelph-Londo-Tappan association*- these soils are nearly level to rolling, well-drained to poorly-drained, loamy soils. They are suitable for agricultural purposes, ideal for crops such as wheat, corn, soybeans, and other cash crops. These soils are generally found north of the Cass River in the northeast corner of the Township.
- *Perrin-Wasepi-Gilford association*- these soils are nearly level, loamy, and sandy soils. They are found on outwash plains, lake plains, and beaches, in this case along the Cass River and in a small pocket on the Township's southern boundary. These soils are generally not suitable for agricultural purposes; rather, they are more suited to sand and gravel extraction.
- *Wixom-Wolcott-Pipestone association*- these soils are nearly level, poorly-drained, sandy, and loamy soils. They are found on outwash plains, moraines, and till plains. They are suitable for agricultural purposes. This association is found in a relatively small pocket on the eastern boundary of the Township.
- *Pipestone-Granby-Chelsea association*- these soils are nearly level to gently-rolling, poorly-drained to well-drained, sandy soils. They are found on outwash plains, moraines, lake plains, and beaches. These soils make up most of Indianfields Township. They are not well-suited for agriculture. Most of the area comprised of these soil types lies in the Tuscola State Game Area.

Soil Limitations for Septic Tanks

The soils in a community affects its development potential. Soils in an area can vary in their capacity to handle different types of development. For example, some soils may be ideal for the raising of crops but are inadequate for roads. Other soils may be suitable for roads but not suitable for septic systems. It is

important to know the limitations of a community's soils and this information should serve as a basis for future land use planning.

Requirements for septic tank use will be dictated by Tuscola County Health Department.

Map 2-2 shows those areas in Indianfields Township with either slight or moderate limitations, the remaining area has severe limitations for septic tank absorption fields. In general, the soils in Indianfields Township are not optimal for septic tank absorption fields. Medium- and high-density development should be limited to areas where sewer services exist or are planned.

Steep Slopes

Development in areas with steep slopes can significantly increase construction costs, as well as the cost of providing municipal services, and can result in increased soil erosion. Map 2-3 shows the general location of steeply sloped areas in the Township. Generally, the U.S. Soil Conservation Services suggest that slopes in excess of 21 percent should not be developed. All of the slopes in Indianfields Township in excess of 18 percent are located along the Cass River. In these areas, the potential of erosion along the river valley walls appears to be significant.

Woodlots

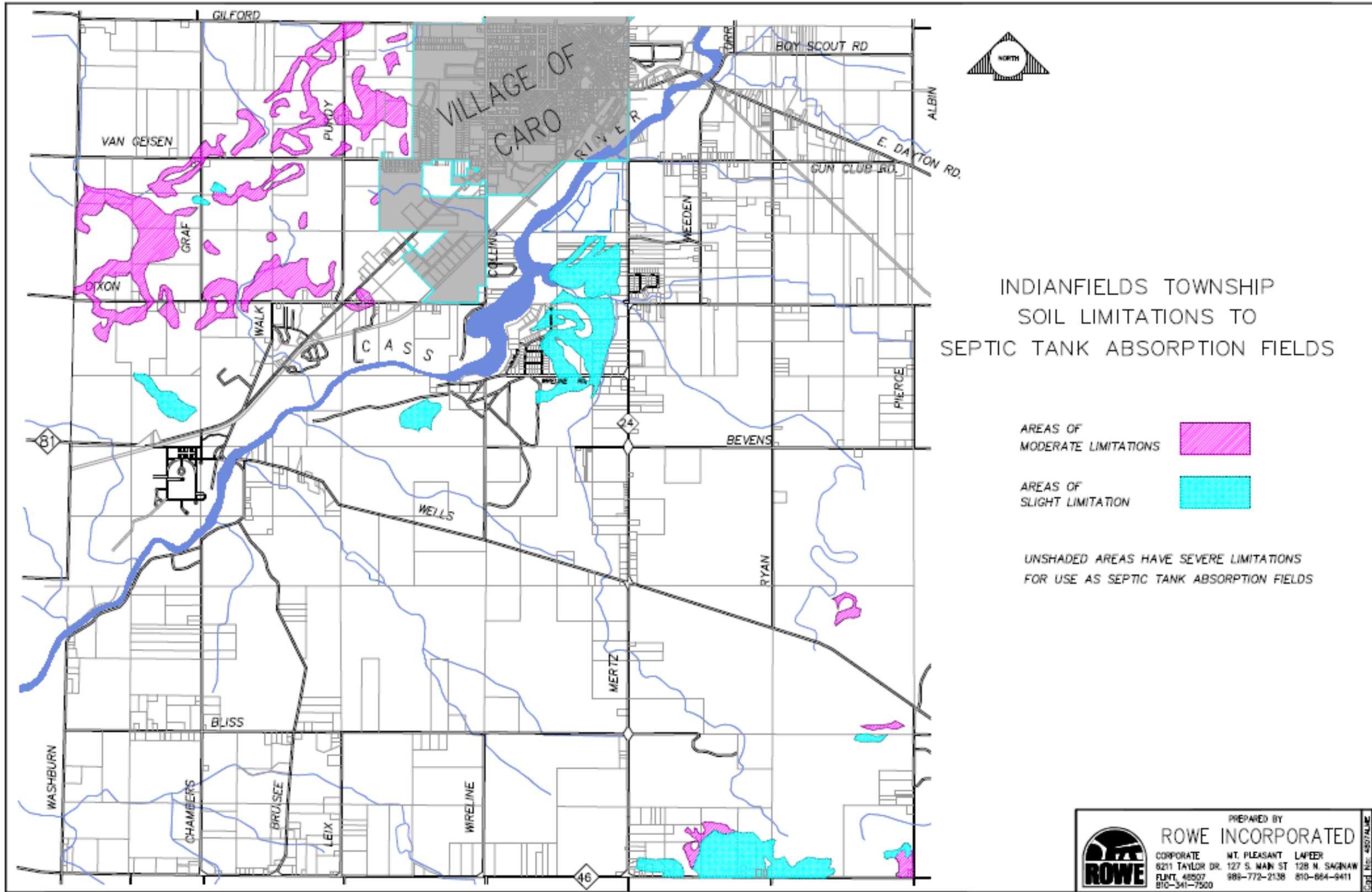
Tuscola County was heavily forested when early settlers began arriving in the mid-1850s. Lumbering was the county's main industry until the end of the nineteenth century, by which time most of the woodland was converted into farmland. In Indianfields Township, the establishment of the 8,383-acre Tuscola State Game Area has preserved a significant natural forest area. This forested area makes up roughly one third of the area of Indianfields Township. Map 2-4 shows the forested land in Indianfields Township.

Most of Indianfields Township is presently zoned for F Forestry. The intent of this zoning district is to "promote the use of wooded and rural areas and retain the basic attractiveness of natural resources". Residential units are permitted in this district by right only as an accessory building or as a seasonal use. They are permitted as a conditional use provided it is a one-family detached dwelling unit with a minimum lot size of 40,000 square feet.

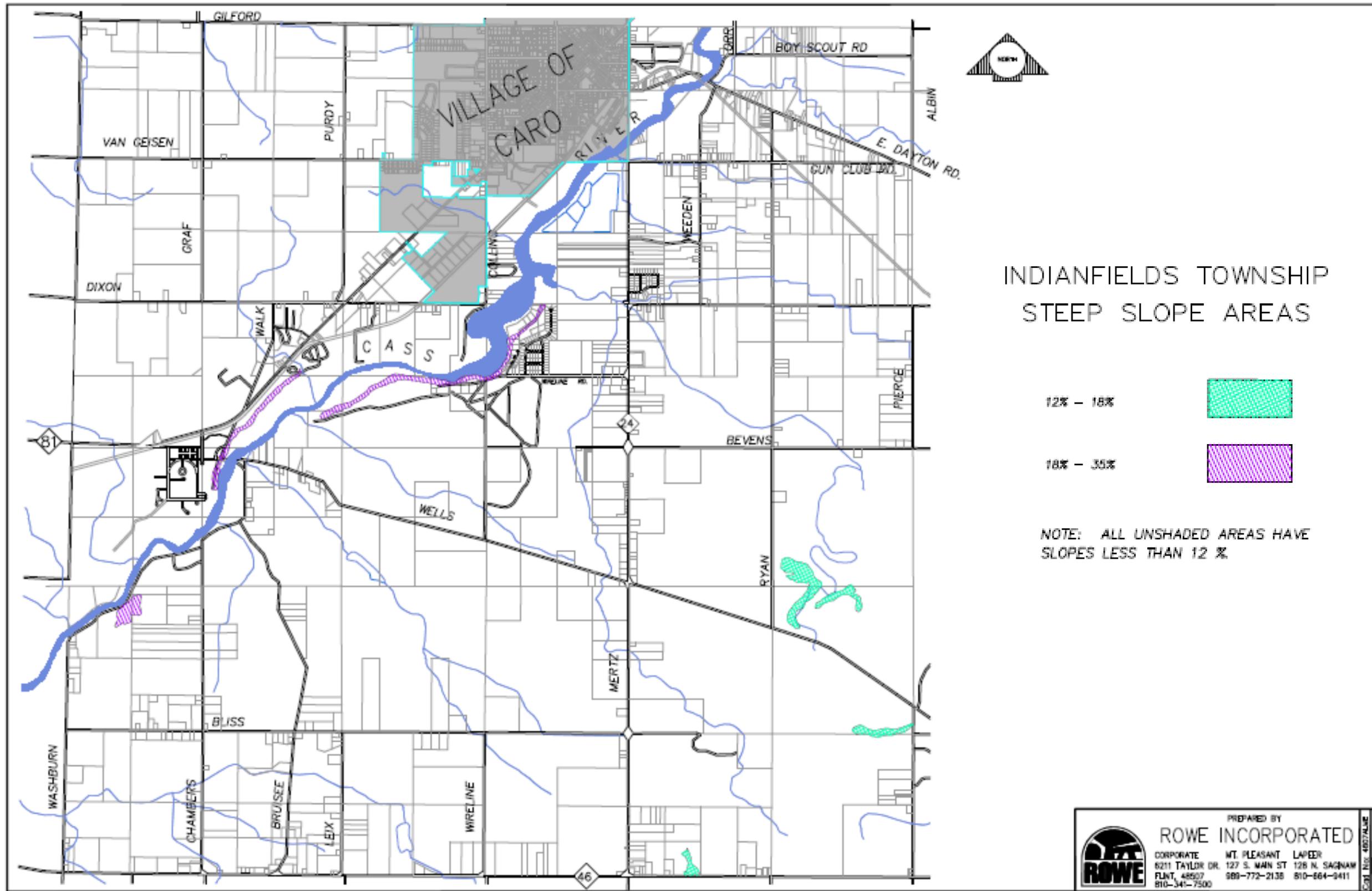


Figure 4: Group of students in Indianfields Township Park

Map 2-2: Indianfields Township Soil Limitations to Septic Tank Absorption Fields



Map 2-3: Indianfields Township Steel Slope Areas



Wetlands

Wetlands are areas of land where water is found on the surface or close to the surface, either permanently or seasonally. Wetlands serve many functions. Wetlands:

- Serve as a storage area for excess surface water, thereby decreasing the severity of floods.
- Preserve water quality by trapping sediments, absorb nutrients, and trap or detoxify many heavy materials, pesticides, and hydrocarbons.
- Recharge ground water supplies.
- Are the habitats for fish, fowl, and wildlife, many species of which are endangered. The State Legislature passed the Goemaere-Anderson Wetlands Protection Act in 1979 (Act 203 of the Public Acts of Michigan, 1979). The act was intended to provide for the "preservation, management, protection, and use of wetlands." The act outlines what is considered a wetland, uses permitted in regulated wetlands, and uses requiring permits. The act also permits some local control of wetlands regulations, but only in the case of communities with adopted wetlands maps.

The act defines wetlands as:

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

- 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 5 acres in size; except this subdivision shall not be 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 this inventory of wetlands in that county.
- Not contiguous to the Great Lakes, an inland lake or pond, or a river or stream; and 5 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 department has so notified the owner; except this subdivision may be utilized regardless of wetland size in a county in which the paragraph above is of no effect; except for the purpose of inventorying, at the time."

There are no official state wetlands maps that conclusively identify these areas considered wetlands. Two types of maps are commonly used in the identification of wetlands. The Michigan Department of Natural Resources' Michigan Resource Inventory System's (MIRIS) Land Use/Land Cover Maps shows wetlands mapped using 1978 infra-red aerial photography. This program did not map land uses or land cover under 5 acres in size. As a result, small wetlands contiguous to a lake, stream, or pond, which are regulated, are not shown. The other map type is the U.S. Fish and Wildlife Service's National Wetlands Inventory maps. While these maps identify smaller wetlands that do not show up on MIRIS maps, these wetlands are not necessarily considered wetlands based on Michigan's definition of a wetland.

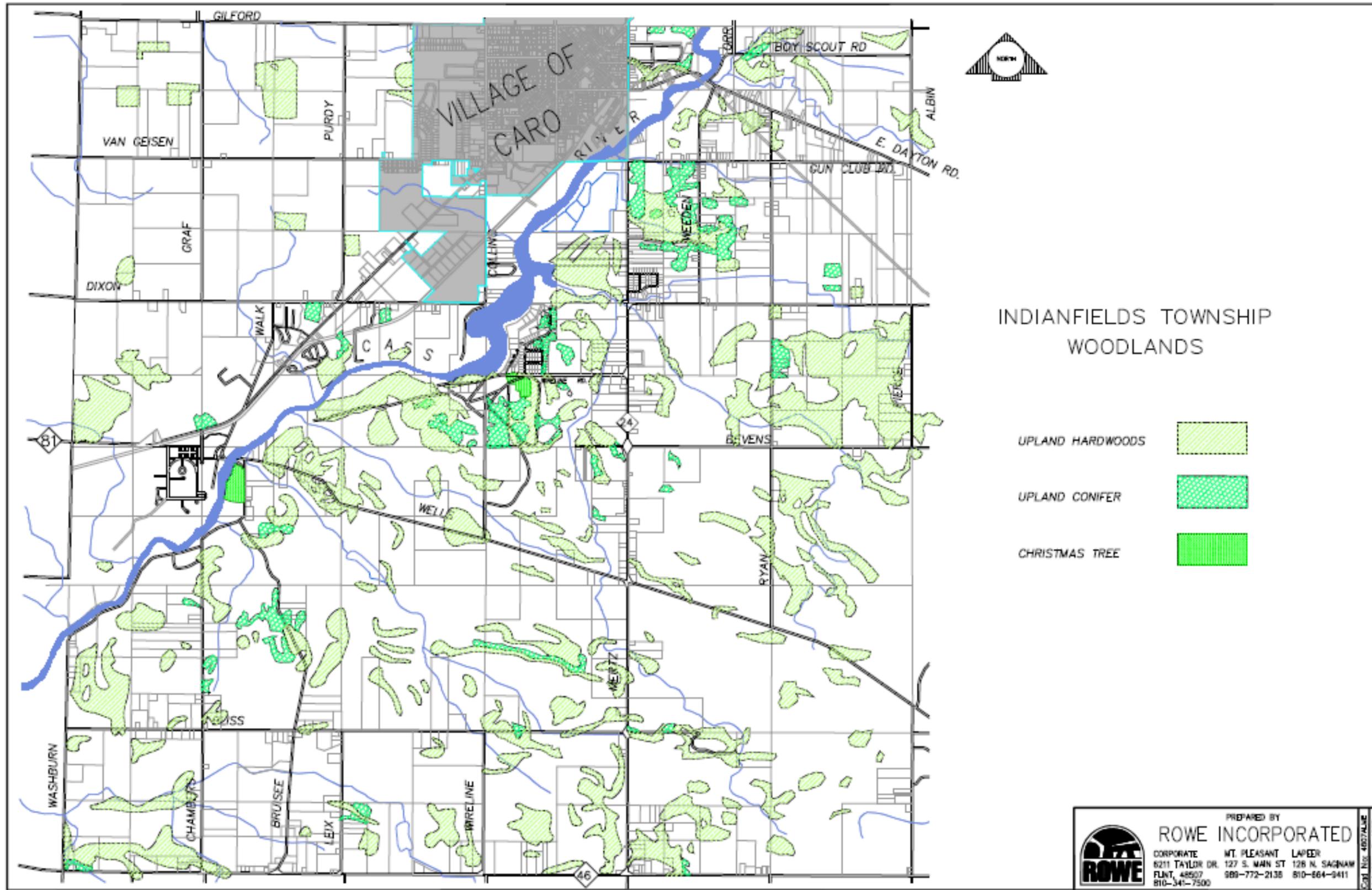
Map 2-5 was prepared using the National Wetlands Inventory maps. The Wetlands Inventory Map was prepared primarily using high altitude aerial photography. The inventory classifies all identified wetlands based on Ecological System, Subsystem, Class, and Subclass. The most dominant wetland type in Indianfields Township, based on Ecological System, are wetlands in the Palustrine System. Most of these wetlands are in the Forested, Emergent, Scrub/Shrub, or Open Water Class. As the map illustrates, there are hundreds of wetlands in Indianfields Township.

They are located throughout the Township, with concentrations along the Cass River and in the Township's southeasterly corner.

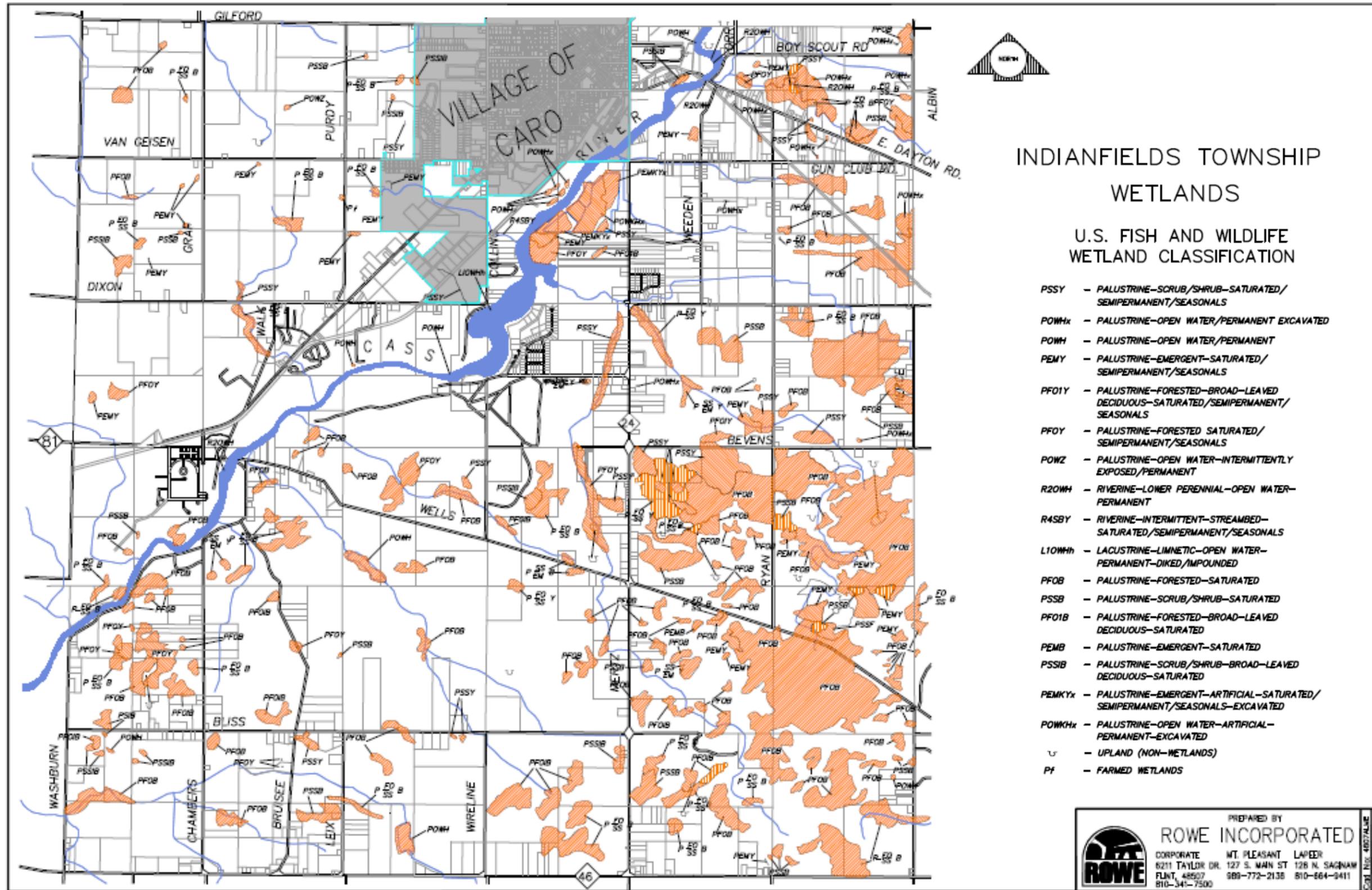
This map indicates general locations of wetlands and is not an official wetlands map. The map does provide conclusive evidence as to whether wetlands do or do not exist on a particular piece of property. Individuals should have an analysis of the site undertaken by the Michigan Department of Natural Resources or a certified wetlands consultant before undertaking any development that could affect any wetlands area.

DRAFT

Map 2-4: Indianfields Township Woodlands



Map 2-5: Indianfields Township Wetlands



EXISTING LAND USE

ROWE Professional Services Company conducted an existing land use inventory in 2019. Aerial photography was primarily utilized in addition to onsite visits to various sites that were in question. In 2011, the Indianfields Planning Commission conducted a complete inventory of existing land use in Indianfields Township; that information was taken to be used as a comparison for the existing land use inventory that ROWE Professional Services Company completed in 2019. The two sets of information might have slightly different total acres in the Township due to drafting errors or corrections by the data source.

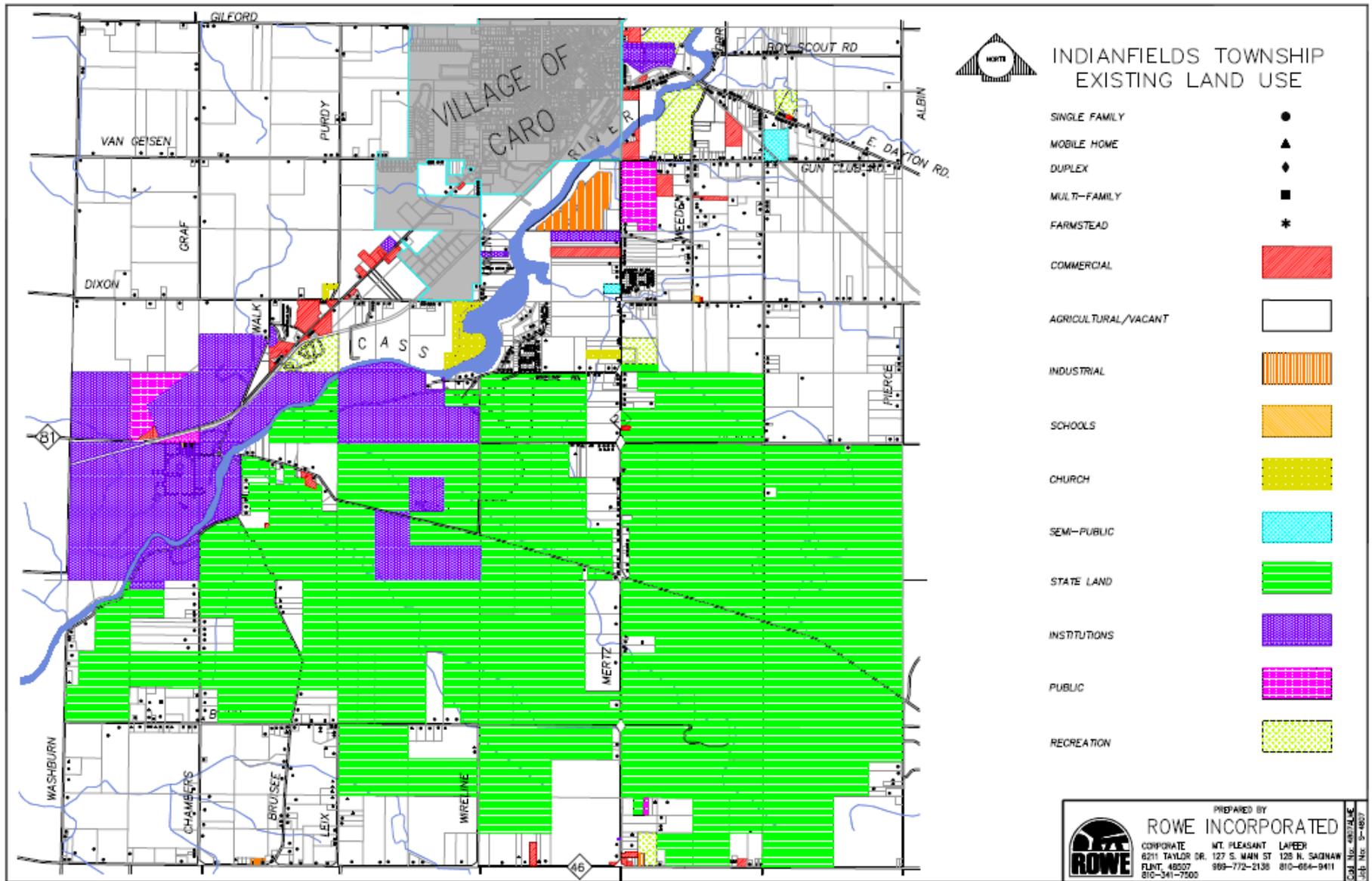
In 2019, some of the categories were changed to simplify the groups. Many of the separate categories listed in the public category were merged and the farmland/agricultural landcover was separated from the vacant/road land use classification. Multi-family and family duplexes were also merged into one category from the original survey. Lastly, many of the recreational, public, institutional, church, and school classifications were merged together.

Land Use Type	2011		2019	
	<i>Area (acres) Estimated</i>	<i>%</i>	<i>Area (acres) Estimated</i>	<i>%</i>
<i>Residential Single-Family</i>	500	2.4%	4,002	19.3%
<i>Multi-family/Family Duplex</i>	6	<0.1%	261	1.3%
<i>Mobile Home</i>	80	<0.4%	18	0.1%
<i>Commercial</i>	100	<0.5%	261	1.3%
<i>Industrial</i>	120	<0.6%	275	1.3%
<i>Institutional/Recreational/Public/ Semipublic/Church/School</i>	2,250	10.7%	615	3%
<i>State</i>	8,200	39.1%	8,074	38.9%
<i>Vacant/Farmland/Roads</i>	9,734	46.4%	3,026	14.6%
<i>Farmland/Agricultural</i>	N/A	N/A	4,231	20.4%
<i>Total</i>	20,990	100%	20,768	100%

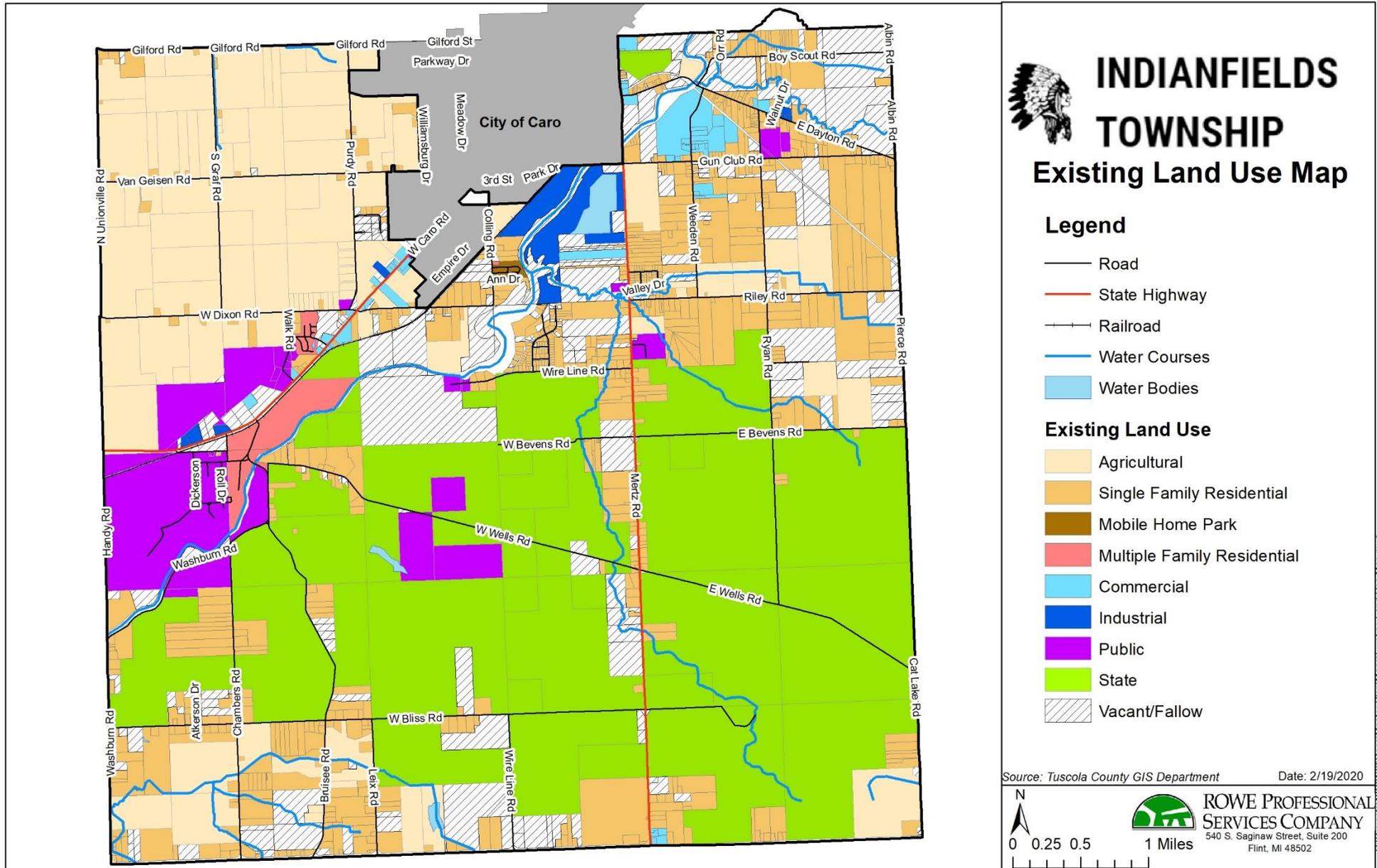
Table 2-20 shows that the largest amount of land in Indianfields Township is dedicated to state land (38.9 percent). The next two largest classifications are agricultural land and residential single family. These primary land uses are the principal uses and are of value to the Township.

One of the major changes from the analysis done in 2011 is when evaluating the information, agricultural land is given its own classification in the 2019 inventory. Another significant change is that large lot single family residential is being converted along the east side of the Township between Bevens Road and Gun Club Road. Included in Map 2-6 and Map 2-7 are the existing land use maps from 2011 and 2019, respectively.

Map 2-6: Existing Land Use Map, 2011



Map 2-7: Existing Land Use Map, 2019



RECREATIONAL FACILITIES

The Tuscola State Game Area makes up just over 1/3 of the total area of Indianfields Township. This state facility is managed by the Michigan Department of National Resources (MDNR). The facility attracts hunters from throughout Tuscola County and the entire "Thumb" Region. Animals hunted in this game area include deer, rabbit, woodcock, raccoon, turkey, muskrat, grouse, and duck. The most recent master plan by the MDNR for the game area was adopted in 2017. In addition to managing the animal life present on the site, another focus of the MDNR Master Plan is the forest inventory to work towards developing a more mature and diverse forest.



Figure 5: Picture of Pavilion in Indianfields Township Park

There are two local parks owned and operated by Indianfields Township. The Bruisee Road site is an 18-acre roadside picnic area, while Indianfields Township Park is a 160-acre site with a number of different parks and recreation facilities (Table 2-21).

Name	Facilities Available	Acreage
Township Park	Picnic Sites Horseshoes Ball Fields Playground Fishing Access to Cass River Volleyball Court Restrooms Pavilions	60 Acres is Township-Owned 100 Acres State-Owned
Tuscola State Game Area	Foot Trails Access to Cass River for canoeing	3,379

Indianfields Township does not have an MDNR-approved Five-Year Parks and Recreation Plan. An adopted plan is needed for a municipality to be eligible to apply for State parks and recreational grant programs. These include the Land and Water Conservation Fund (LWCF) and the Michigan National Resources Trust Fund (MNRTF). The LWCF is a 50 percent matching grant program with up to \$250,000 available per project for park land acquisition. The MNRTF is a 25 percent matching grant programs with up to \$275,000 available per project for park facility development. Both programs are managed by the MDNR. If Indianfields Township wishes to become eligible to apply for State parks and recreation grant programs, an MDNR-approved Five-Year Parks and Recreation Plan will need to be developed.



Figure 6: Picture of Local School Field Trip in Indianfields Township Park

AGRICULTURAL LAND

Encouraging future development away from prime agricultural land and natural areas is one of the land policies of the 1980 ICA Land Use Plan.

The Indianfields Township Zoning Ordinance was adopted in 1969. All

principal uses and conditional approval uses permitted in the R-1 and R-2 Single-Family districts are permitted in the AG Agricultural district. Rezoning from Agricultural land to Residential districts can be used as an indicator of conversion from agricultural land to residential uses.



Figure 7: Picture of Agricultural Land

Cause and Effect of Farmland Conversion

The following are some of the major causes of farmland conversion to non-agricultural uses:

1. The inability of agricultural land to compete with other uses.
2. The use of agricultural zoning districts as “holding zones” for future non-agricultural uses.
3. The high cost of the subdivision process which discourages the development of residential areas at greater densities.
4. High tax assessment as a result of the sale of surrounding property for residential purposes increases the cost of land to farmers, reduces profit margins and increases the attractiveness of selling property for residential purposes.
5. Difficulty for new farmers to afford getting into farming results in the conclusion of family’s involvement in the farm and sale of land to the highest bidder.
6. The Subdivision Control Act’s effect on the development of 10.01+ acre parcels.
7. The development of “raised bed” engineered septic systems that permit the siting of homes in areas of heavy clay soils.

The effects of farmland conversion to non-agricultural uses include:

1. Increase in public costs as development stirs a demand for road improvement, water and sewer extensions, and expanded fire and police coverage. Education costs are increased as more students must be bused in from areas of school district beyond walking distance.
2. Loss of part of a “base” industry that exports goods outside the community and generates income for the community.
3. Increase in energy costs as crop production is transferred from prime to non-prime soils requiring more investment in fertilizers, farm machinery, etc. Energy costs are also increased as residents move out into the country, increasing the length of their trip to work and shopping.
4. Increases in conflicts between agricultural operations and non-farm residences.
5. Reduction in open spaces which detracts from the rural character of the area.

Prime Farmland

The United States Department of Agriculture’s Natural Resources Conservation Service has provided soil information for Farmland Classification. Using this data, we were able to determine where in

Indianfields Township there is prime farmland, farmland of local importance, prime farmland if drained, and areas that do not contain prime farmland. Most of the southern portion of the Township contains farmland of local importance. Most of the northern half of the Township, apart from the City of Caro, contains prime farmland if it were to be drained. Map 2-8 shows the prime farmland areas in Indianfields Township that were identified.

The Agricultural Sector of the Township Economy

Agriculture is an important economic base for many communities in Michigan. The same holds true for Indianfields Township. The agricultural sector of the Township’s economy grew from 1995 to 2005, lessened in 2010, but began to rise again between 2010 and 2015. This can be seen in Figure 8 which shows the state equalized values for Indianfields Township in 1995, 2000, 2005, 2010, and 2015.

Figure 8: Indianfields SEVs

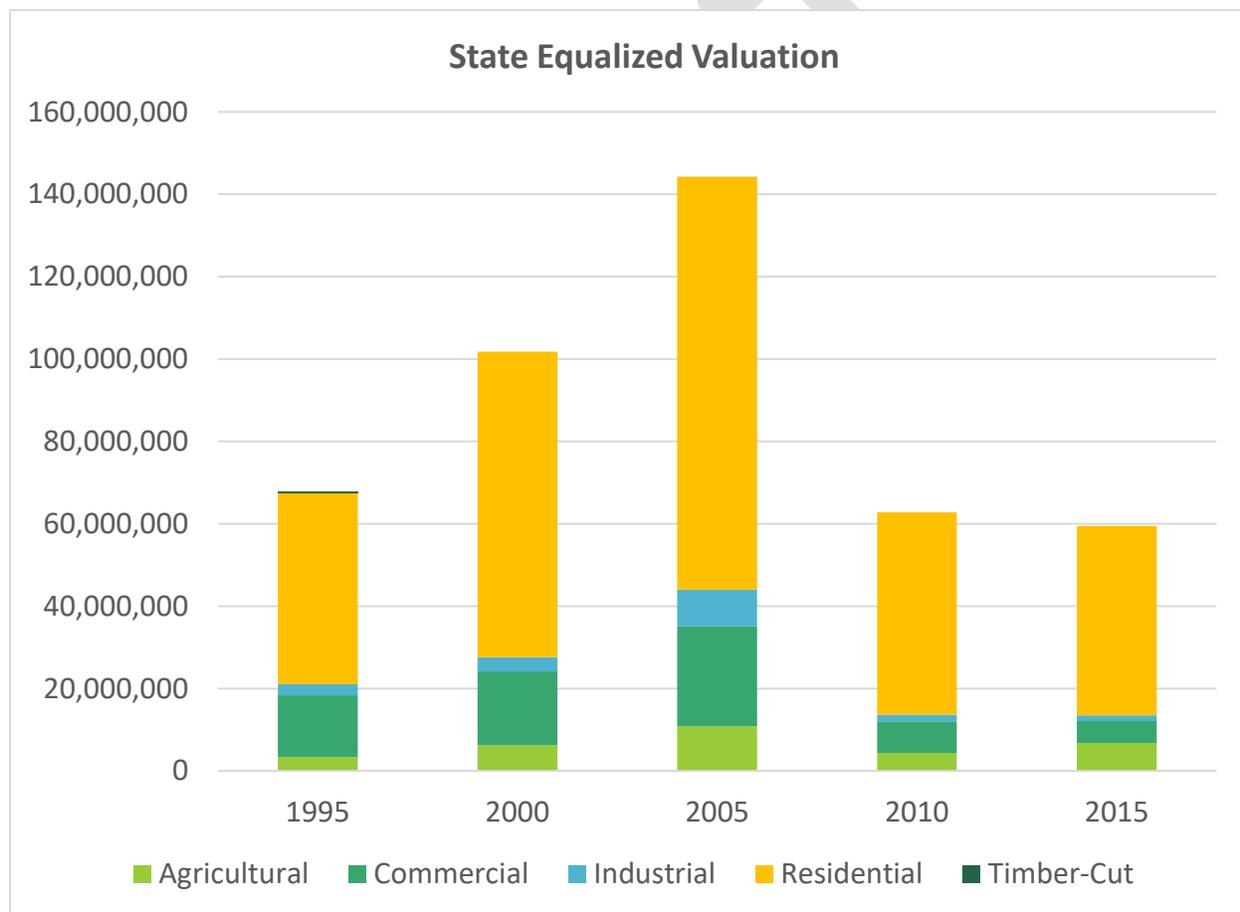




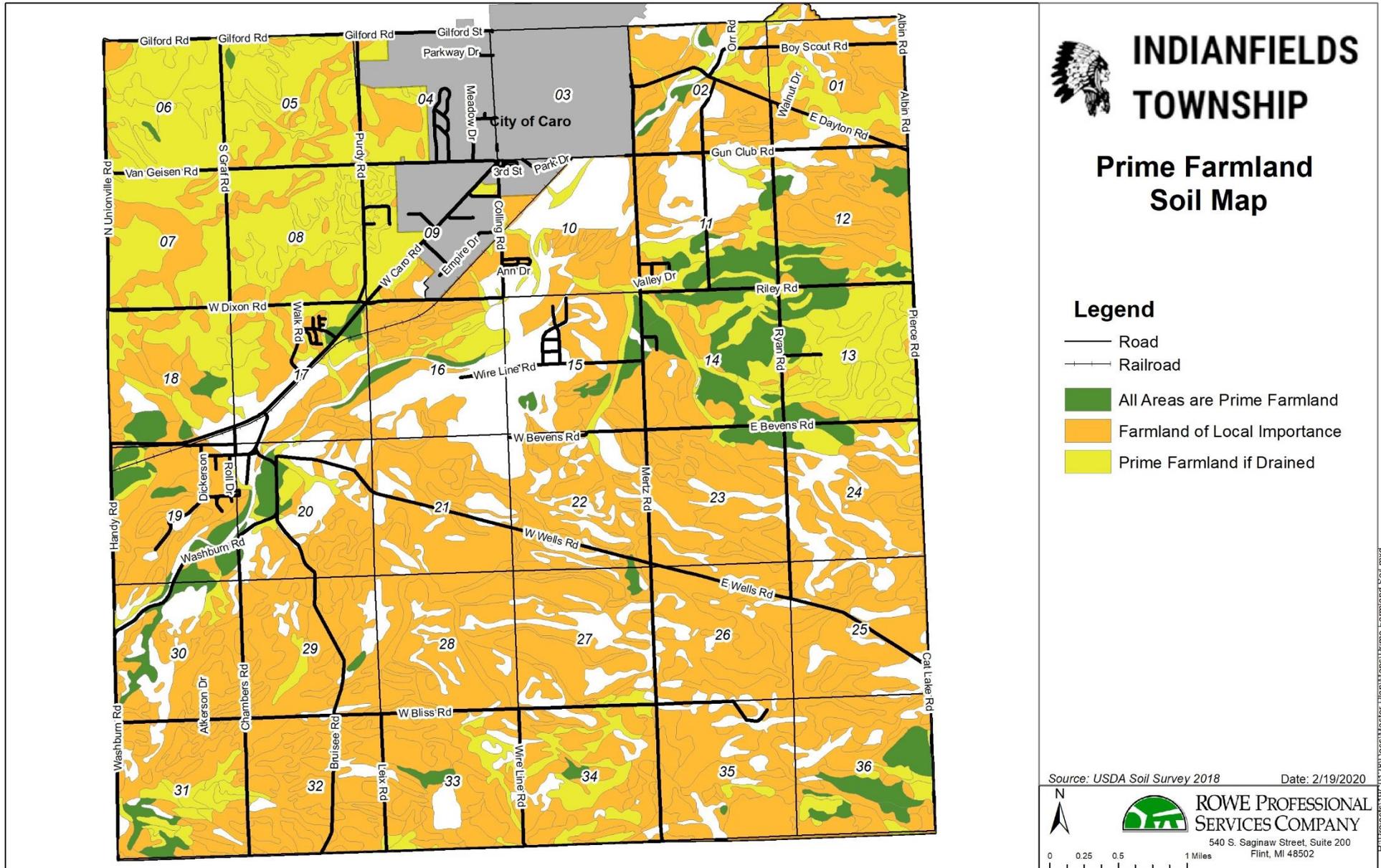
Figure 9: Agricultural Land in the Township.

Public Act 116

Public Act 116 permits farmers to obtain certain tax credits in return for agreeing to temporarily give up their right to develop their property for non-farm uses. Enrollment in the program serves as an indicator of the intent to preserve agricultural land, at least for a specific period. The P.A.116 can span from 10 to 99 years. In 2012, there were 11,712 acres of land in Tuscola County enrolled in the P.A.116 programs, 940 acres in Indianfields Township. This represents about 8 percent of the total area of the Township. It must be noted this is a voluntary program.

Agricultural land will remain agricultural for the duration of the agreement. However, it will not prevent sprawl development in between parcels or prevent the extension of municipal utilities or services within areas that the sprawl entails. Once the non-P.A.116 parcels are developed and utilities are extended, property owners in P.A.116 will tend to drop out of the program when their enrollment period expires, and the long-term viability of all farmland will be reduced.

Map 2-8: Prime Farmland Map



COMMERCIAL DEVELOPMENT

Commercial development in Indianfields Township is comprised mainly of establishments along M-81, M-24, and M-46. It appears that new commercial development in Indianfields Township will continue to take place along the state trunk lines. The extension of state trunk line M-24 will likely increase traffic volume along M-24. This increase in traffic will likely place development pressures on the land along the roadway. Presently, the City of Caro has a policy of requiring annexation from the Township for new developments requiring municipal water. It is possible that, given these development pressures along state trunk lines M-81 and M-24, the limits of the City of Caro could continue to expand outwards into Indianfields Township. The following is a list of the commercial developments in Indianfields Township in 2019:



Figure 10: Entry Sign for Tuscola Area Airport

Acoustical Art	Kid's Club
Arrowhead Golf and Country Club	Kings of Columbus Hall
ATBD Financial Planners	Long's Propane & Gas
Bell Wasik GMC Dealership	Ligs
Big Boy	Maple Grove Veterinary
Brown Elephant	Mission Cross Fit Caro
Caro Center	Moore Motors Auto Dealer
Caro Golf Club	MT Auto & RV
Caro Packing	M-46 Mini Mart
Caro Pet and Groom	Osborne Realty
Caro Tax & Accounting	Polish American Club
Caro Veterinary	Pro Builders – Builders FirstChoice
Caro Wrecking	Raise the Bar Caro
Car's R Us	Ralston's Bargain Bin
Clark and Sunoco	Rasmusson Trucking
Club 24	Rolka Electrical Contracting
Dave's Glass	ServPro
Ferrell Gas	Suburban Propane
Ferguson Propane	Tait's Auto
Farmers Bureau Insurance	Tuscola County Animal Shelter
Farm Depot	Tuscola County Conservation Club
Green's Deer Ranch	Tuscola County Recycling
Grice's Tree Farm and Nursery	Tuscola County Road Commission
Jack's Heating & Cooling	Wheelz N Deals
Jan's Beauty Cottage	Woody'zzz Motel
Kappen Excavating	

Indianfields Commercial Development

The previous Land Use Plan included a complete list of commercial uses in Indianfields Township in 2012. The list categorized these businesses into 14 different categories.

Table 2-22 compares commercial business types existing in 2012 to those identified in 2019. One change that was made from the previous Land Use Plan was the addition of a governmental business type. This business type was added to cater to the Tuscola County businesses/services that exist in Indianfields Township. This table was created to compare and discuss commercial trend in Indianfields Township from 2012 to 2019.

<i>Business Type</i>	<i>2012 Twp</i>	<i>2019 Twp</i>
<i>Auto Repair/Service (A)</i>	6	1
<i>Legal, Professional (B)</i>	5	4
<i>Retail (C)</i>	5	9
<i>Home Improvement/Construction: Materials (D)</i>	2	1
<i>Home Improvement/Construction: Contractors (E)</i>	7	4
<i>Medical/Dental/Therapy/Optometry (F)</i>	0	1
<i>Non-Professional Services (G)</i>	12	8
<i>Entertainment/Recreation (H)</i>	6	4
<i>New and Used Autos/Equipment/RVs/Motorcycles (I)</i>	5	8
<i>Eating/Drinking Establishments (J)</i>	5	2
<i>Banks/Financial Institutions (K)</i>	0	2
<i>Food/Variety/Drug Stores (L)</i>	1	2
<i>Cards/Gifts/Antiques/Crafts/China/Glassware (M)</i>	0	1
<i>Governmental (N)</i>	N/A	4

(A) Auto Repair/Services would include: Auto body shops, repair shops, service stations, auto washes

(B) Legal/Professional would include: Lawyers, investors, accounting/income tax services, insurance, veterinarians, real-estate agents, home sales

(C) Retail would include: Clothing, shoes, auto parts, appliances, furniture, office equipment, jewelry, books, hardware, department stores

(D) Home Improvement/Construction- Materials would include: home improvement store, lumber yards, building materials supplier

(E) Home Improvement/Construction- Contractors would include: electrical contractors, plumbers, heating and ductwork, drywallers, painters, general contractors, excavating

(F) Medical/Dental/Therapy/Optometry would include: urgent care, hospitals, nursing home, dentist office, oral surgeon, counseling centers, veterinary

- (G) Non-Professional Services would include: pet groomers, trucking facilities, motels, salons, kids club, bargain shops
- (H) Entertainment/Recreation would include: golf and country club, club organizations, gyms
- (I) New and Used Autos/Equipment/RVs/Motorcycles would include: Used car lots, RV lots, new car lots
- (J) Eating/Drinking Establishments would include: restaurants, bars
- (K) Banks/Financial Institutions would include: bank, accountant, tax services, financial planner
- (L) Food/Variety/Drug Stores would include: grocers, drug stores, meat packaging
- (M) Cards/Gifts/Antiques/Crafts/China/Glassware would include: Antique store, gift shop, home goods shop
- (N) Governmental would include: animal shelter, conservation club, recycling, road commission

Table 2-22 implies that there has been an increase of four retail business in the Indianfields Township since 2012. Many of these newer retail shops are small and locally owned. Movements such as American Expresses Shop Small campaign encourage people to shop and invest in smaller, local shops, rather than large department stores. Campaigns such as this may be attributed to this increase in retail shops in Indianfields Township. Identifying a market niche and providing specialized goods within that niche will need to be pursued if these smaller retail shops want to succeed.

The largest commercial categories found in Indianfields Township in 2019 are retail, non-professional services, and new and used autos/equipment/RVs/motorcycles. We also added a government category to add those businesses run by the Township or county, such as the animal shelter, the recycling center, the conservation club, and the road commission.

The categories that have seen increases over 2012 to 2019 include:

- Retail,
- Medical/dental/therapy/optometry,
- New and used autos/equipment/RVs/motorcycles,
- Banks/financial institutions,
- Food/variety/drug stores, and
- Cards/gifts/antiques/crafts/china/glassware.

The businesses that have seen decreases over 2012 to 2019 include:

- Auto repair/service,
- Legal/professional,
- Home improvement/construction: materials,
- Home improvement/construction: contractors,
- Non-professional services,
- Entertainment/recreation, and
- Eating/drinking establishments.

Businesses such as auto repair/service, contractors, and the like are sometimes run out of homes, which make it difficult to count them, and could count for some of the shown decrease.

INDUSTRIAL DEVELOPMENT

Indianfields Township had 120 acres of industrial land in 2012 and in 2019. There appears to be more industrial development along M-46 including Long's Propane Gas and Rasmussen Trucking & Service Center near the Tuscola Airport. Another clustering of industrial development is the area near the Cass River in Section 16, which is the Michigan Sugar manufacturing facility. There were no large scale industrial developments in outlying areas of Indianfields Township.

The availability of land suitable for larger, more intense industrial development is limited due to the difficulty of obtaining municipal water. The Caro industrial park is suitable for industrial development given the location near the city center and the intersection of two all-weather state trunk lines (M-24 and M-46) and the availability of utilities such as water and sewer. It is likely that significant future industrial development will be located in the industrial park rather than in outlying rural areas of Indianfields Township.

The Huron and Eastern Railway runs through the Township. The particular railroad line that goes through the city and Township runs north to Colling Township and south to the Village of Millington with a junction at the City of Vassar. Another asset that is located near the railroad is the Tuscola Area Airport. These two modes of transportation make it easier for merchandise or material to get to their desired destination.

TRANSPORTATION

Road Types

The principal transportation system in Indianfields Township is the county road network (see Map 2-9). The road system is divided into local and primary roads. The primary road system is designed to provide routes for movement within the county. Local roads are any road other than a primary road and principally provide access from property to primary roads.

The primary roads in Indianfields Township are:

- Bevens Road, M-24 to Pierce Road
- Gilford Road, Unionville Road to Colling Road
- Chambers Road, M-81 to M-46.

All-Weather Roads

Most roads in Michigan are designed to handle heavy loads most of the year except during the period in spring when the frost in the ground begins to thaw. During this period, the bases of most roads are vulnerable to damage from heavy trucks. As a result, road commissions have adopted "frost laws" which restrict the movement of heavy vehicles on these roads during the spring thaw, a period which averages about six weeks. All-weather roads have been built up to permit heavy truck traffic during this period. These roads can be used all year by heavy vehicles and are therefore generally identified as the preferred location for industrial and most commercial development.

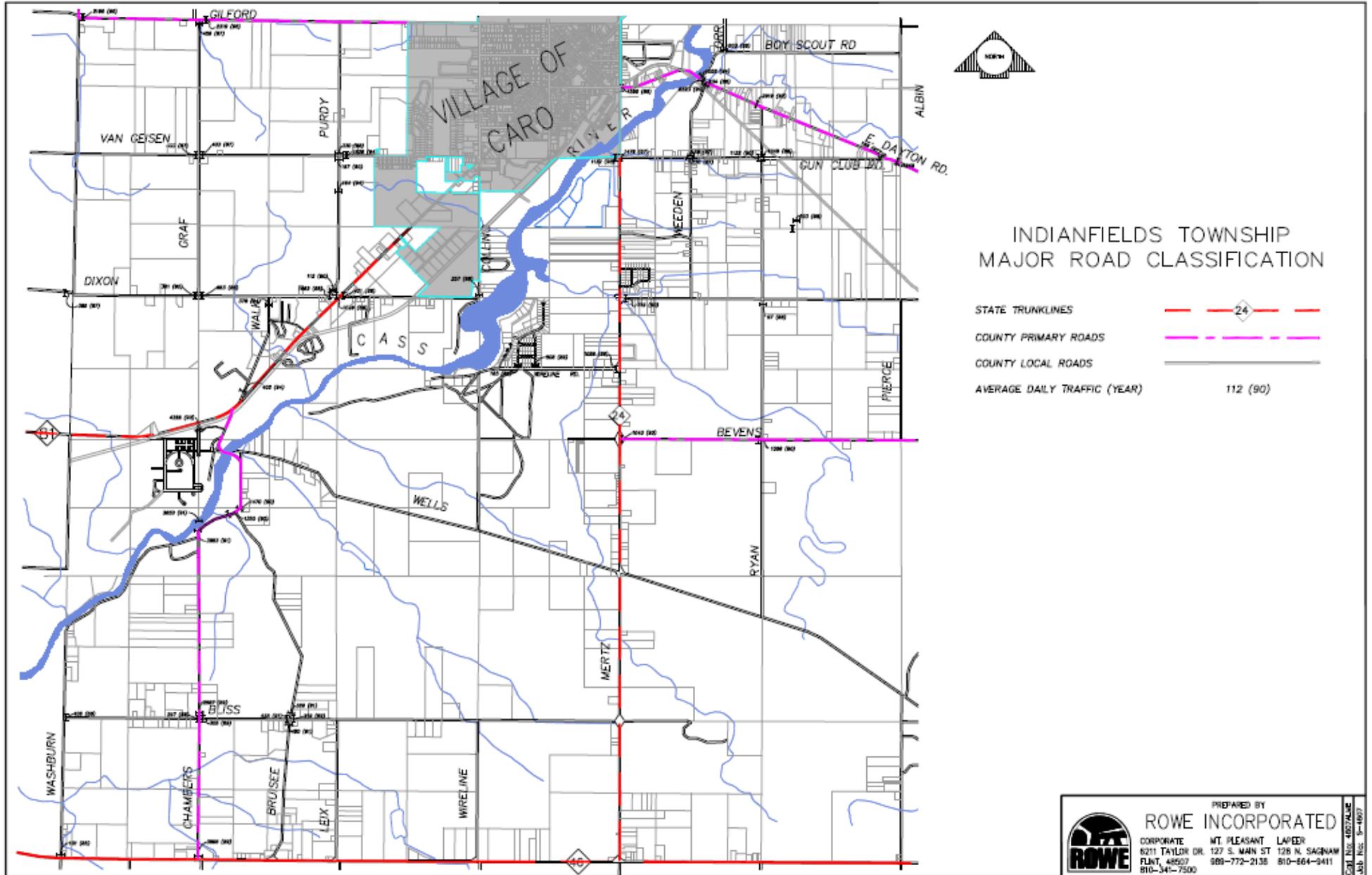
The Tuscola County Road Commission compiled a list of all roads with size and weight limits the same as State highway M-46. The only all-weather roads in the Township were state trunk lines M-46, M-24, and M-81.

Road Capacity

A road's capacity and current traffic can affect the suitability of land for various uses. Capacity of a road is measured by delay, such as how close actual speed is to posted speed, how long you wait at traffic signals and intersections, and frequency of adequate gaps in traffic to allow turns. A road with a relatively low capacity should not be used for access uses with high traffic generation rates such as commercial or high-density residential uses. Map 2-9 shows the most recent 24-hour traffic counts for the Township's primary roads. They range from 6,523 vehicles per day on East Dayton Road at the Cass River, to 1,043 on Bevens Road east of M-24.

DRAFT

Map 2-9: Indianfields Township Major Road Classification



PREPARED BY
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ROWE
 48372ALR
 9-4807

A two-lane arterial such as a paved county road is estimated to have an average daily traffic capacity of between 12,000 to 14,000 vehicles per day. Capacity can be influenced by a number of factors including volume of turning movements, number and spacing of signals, percentage of truck traffic, on street parking, etc. Generally speaking, the primary roads appear to be able to handle additional traffic without widening or other improvements.

Bridges

Bridges with weight limitations can serve as restrictions to development by restricting heavy vehicles from traveling over them and preventing truck traffic from being able to conveniently move from point to point. Indianfields Township has only one bridge with a weight restriction, a bridge that carries Boy Scout Road over Sucker Creek in Section 2. This bridge is on Michigan's Critical Bridge List and has a posted 10-ton weight limit. Since Boy Scout Road is not a primary road, the weight restrictions do not appear to be a significant impediment to traffic.

Traffic Accidents

A study of the location and type of traffic accidents over a period of time is a useful tool for determining problem areas in a transportation system. A significant pattern of accidents at a particular location could identify a correctable design problem.

Indianfields Township traffic accident reports indicate most are collisions with deer. Others are attributed to icy/snowy conditions. Some accidents involved turning movements from roads to private drives. Perhaps signs warning of turning movements could reduce the number of these accidents.

Some accidents occurred at intersection stop signs or occurred while turning from a through road at an intersection. Other accidents that occurred were caused by traveling too fast around curves. These curves are located in Section 20. Perhaps lowering the posted speed limit at these curves would reduce the number of traffic accidents.

Signalization

There is one traffic light in operation in Indianfields Township, located at the intersection of M-24 and M-46 at the southeast corner at the Township.

Chapter 3. Goals and Policies

The Township has specific goals, objectives, and policies to help implement their vision for the community. Goals are visionary statements on what the Township will be. Objectives are various components that help to contribute to the visionary statement. Policies are the action items to implement the objective. Every goal has objectives and every objective has a policy. The master plan is the basis for the zoning ordinance.

Land Use

Goal: Indianfields Township experiences orderly growth.

Objectives:

1. Encourage future development away from prime agricultural land and natural areas sensitive to development such as wetlands, forested areas, floodplains, and areas of steep slopes.

Policies:

- Evaluate the future land use plan and the location criteria to protect prime farmland and natural resources.
2. Direct development towards available industrial land while planning for future industrial expansion and restricting commercial development to areas which have already experienced such development.

Policies:

- Evaluate the future land use map and the location criteria to concentrate industrial and commercial development to locations where such uses predominate.
3. Provide additional areas for residential development (especially for alternate housing types) in areas which are already residentially developed.

Policies:

- Evaluate the zoning ordinance for specifically listed alternative housing types and associate “missing middle.”
 - Evaluate utility extensions to appropriate areas.
 - Explore cooperative agreements regarding extension of utilities with the City of Caro.
4. Use transitional areas to buffer incompatible land uses from one another.

Policies:

- Review in the zoning ordinance landscaping requirements.

Residential

Goal: Maintain high quality residential development which will fulfill the needs of the various population segments in the area.

Objectives:

1. Encourage home ownership in the area, through the use of alternate housing types such as duplexes, condominiums, and modular homes in designated areas.

Policies:

- Evaluate the zoning ordinance for specifically listed alternative housing types and associate “missing middle.”
 - Explore areas of increased density.
 - Evaluate minimum dwelling size to determine if reductions are appropriate.
2. Encourage new developments to be built in a manner sensitive to the physical character of the Indianfields Township area.

Policies:

- Review the zoning ordinance design standards.
 - Evaluate zoning standards related to the aesthetics of single-family homes.
 - Identify areas appropriate for more residential character versus those areas where the rural character and open space should be protected.
3. Encourage preservation of quality older homes.

Policies:

- Provide residents with information regarding programs available for housing rehabilitation assistance.
4. Encourage the repair or removal of severely dilapidated housing, especially when those houses represent “non-conforming uses” and/or are a threat to health, safety, and welfare.

Policies:

- Evaluate blight ordinance requirements.
5. Promote quality housing for all income groups, both owner-occupied and renter-occupied.

Policies:

- Evaluate zoning ordinance for specifically listed alternative housing types and associate “missing middle.”

Goal: Discourage loss of farmland.

Objectives:

1. Discourage large lot, linear developments on existing farmland in Indianfields Township.

Policies:

- Amend the zoning ordinance to prohibit large lot single-family housing developments in the agricultural district.
- Consider strategies that encourage development with internal road systems.
- Providing incentives for cluster development.
- Maintain stringent lot depth width ratios.
- Prohibit the development of flag lots.

Commercial

Goal: Encourage the continued development of the Indianfields Township area as the commercial/service center of Tuscola County, while meeting the shopping and employment needs of local citizens.

Objectives:

1. Do not permit the Indianfields Township to become “over built” in commercial space, thus threatening the economic vitality of existing businesses.

Policies:

- Encourage future commercial development to occur within or near already developed commercial areas.
- When possible, encourage more intensive use of existing commercial facilities, rather than construction of new facilities.

2. Encourage businesses into the Indianfields Township area that will provide for the best commercial/service “mix” and which will meet known deficiencies.

Policies:

- Continuously review the zoning ordinance for new uses that may need to be added.

3. Strengthen the “partnership” between all levels of government and Indianfields Township business community.

Policies:

- The Township recognizes the city downtown as the principal commercial district in the area and will work with the City of Caro to ensure that development in the Township does not lead to deterioration of the downtown.
- Work with the Chamber of Commerce or other businesses associations to find win-win situations.

4. Encourage economic self-sufficiency in agriculture by encouraging businesses in the area which will meet the needs of the farming community.

Policies:

- Explore adding agriculture businesses to the agriculture district.

5. Enhance the aesthetic quality of all commercial establishments in the Indianfields Township area.

Policies:

- Review the zoning ordinance design standards.
- Review the zoning ordinance landscaping requirements.

Industrial

Goal: Provide for substantial industrial growth in the Indianfields Township through orderly placement of land uses and strengthened local organization.

Objectives:

1. Encourage industries to locate in the Indianfields Township area in accordance with the Land Use Plan.

Policies:

- Initiate an aggressive campaign by which to utilize land adjacent to the Caro airport and to attract new industrial uses to vacant and undeveloped industrial land or obsolete industrial land within the Indianfields Township area.
 - Locate industrial uses in areas which have the necessary transportation facilities (highway, air, or rail), while preventing industrial development in environmentally-sensitive areas such as wetlands.
2. Foster industrial development in the Indianfields Township area at a rate which is consistent with the ability to provide housing, services, utilities, and amenities.

Policies:

- Establish a future land use locational criterion for industrial development.

Sense of Community

Goal: Preserve and encourage a strong sense of “community” within the Indianfields Township area.

Objectives:

1. Provide residents from within each area of the Indianfields Township the opportunity for input into the decision-making process.

Policies:

- Review and update this plan regularly (every 5 years) to be current with community needs and conditions.
 - Consider establishment of a communication plan.
 - Continue to update the Indianfields Township website.
2. Provide guidance to local commissions and boards regarding their responsibilities and functions while improving coordination among these boards.

Policies:

- Encourage commissioners and board members to attend training sessions.
- Encourage one joint meeting a year to facilitate communication between the boards.

3. Provide quality recreational facilities within the Township.

Policies:

- Coordinating with the Michigan Department of Natural Resources.
- Work on updating the parks and recreation plan or coordinate with the county to be part of their parks and recreation plan.

Chapter 4. *Land Use Plan*

There are not many differences between the future land use classifications in this plan and the current zoning ordinance. This is because this plan has been based in large part on the previous Land Use Plan, which in turn was used as a basis for the current zoning ordinance. This plan proposes to keep most of the land use categories contained in the previous plan, with the exception of Medium-Density Residential and Parks and Private Recreation which were not delineated in this plan.

The future land use map for Indianfields Township provides for medium-density, low-density, and mobile home park residential development, commercial development, light and heavy industrial development, and agricultural and forestry areas. These land use classifications, their purpose, and location criteria are outlined below:

Low-Density Residential

The low-density residential land use classification is intended to protect and encourage single-family homes throughout the Township. The uses that will be promoted under this category exist to ensure compatible land use with residential uses in order to maintain harmony and not create increased demand for traffic and utilities. Lot sizes may be no smaller than 20,000 square feet, and land use density will be approximately 2 to 3 dwelling units per acre.

The location criteria for low-density residential areas include:

- Areas properly buffered from existing or proposed commercial or industrial areas.
- These uses should be located around the City of Caro and northeast corner of the Township.

Agriculture

The purpose of the agricultural classification is to protect agricultural areas from non-agricultural activities as well as protect the rural character of areas primarily reserved for agricultural activities. Agriculture uses are also to be protected in order to maintain the rural character in areas where agriculture and agribusinesses proliferate. Lot sizes should be large enough to accommodate cultivation and livestock and other non-farm uses will be excluded or heavily restricted. Minimum lot size is 2 acres.

The location criteria for agricultural areas include:

- Areas with prime agricultural lands, comprised of prime soils with slopes less than 6 degrees.
- Areas used primarily for agriculture.
- Areas not proposed for water or sewer services.
- Agricultural areas should be primarily used for farming, and farmsteads and supporting uses should not predominate.

Mobile Homes

The purpose of the mobile home classification is to provide for alternative residential development at a higher density than single-family residential neighborhoods. These developments will provide a wider range of housing opportunities to village residents, including young families or retired households. An appropriate site for mobile home park development would be determined using the following criteria upon the establishment of an identified need for a mobile home park in the Township and surrounding area.

The location criteria for mobile home residential areas include:

- Areas adjacent to mobile home residential areas.
- Areas adjacent to high-density residential areas.
- Areas adequately buffered from single-family residential neighborhoods.
- Areas located close to state highways or primary roads.
- Areas adequately served with water and sewer services.

Commercial

The purpose of the commercial classification is to provide for uses that will strengthen the ICA's position as a viable commercial center. This will occur with the establishment of a wide range of commercial retail and service businesses that will provide needed products and services to the ICA area and Tuscola County as a whole. The intent of the district is to ensure adequate buffering of adjacent residential uses and to ensure adequate roadway access that promotes shared driveways and other techniques useful in reducing traffic access conflicts. It is also intended that general commercial development will occur as infill between established commercial uses rather than increasing the total length of commercial linear development in the Township.

The location criteria for commercial areas include:

- Areas of established commercial uses.
- Areas with access to water and sewer services.
- Areas separated from incompatible land uses such as single-family residential.
- Industrial uses shall be located near the City of Caro.
- Areas fronting on or with direct access to state highways M-81, M-46, or M-24.

Industrial

The purpose of the industrial classification is to provide locations for wholesale activities, warehouses, and industrial opportunities, thereby expanding the economic base of the Indianfields Township area and the employment opportunities available to Indianfields Township residents. It is the intent that future industrial activities will be located in the Caro Industrial Park given its location and the availability of large lots, sewer, water, and all-weather roads. Secondary priority is to reuse any vacant or under-used industrial sites in the Township. Should the park reach full capacity in the future, and other existing and appropriate sites do not exist, appropriate Township locations for the industrial uses could be selected on a case-by-case basis using the following established location criteria.

The location criteria for industrial areas include:

- Areas with access to all-weather roads.
- Areas with access to suitable water and sewer services.
- Areas adjacent to industrial uses.
- Areas separated from incompatible land uses such as single-family residential development.

Forestry

The forestry classification is intended to preserve the natural character and appeal created by forested areas and wetlands within the Township. Forestry areas should maintain the presence of forests and wildlife, while also providing recreation opportunities such as parks, camping, and hunting, as well as uses that will have a minimal impact on the health of forested areas. Forestry areas should, first and

foremost, maintain definitive natural features such as trees, wetlands, and steep slopes. Uses associated with this classification include cabins, camping, hunting/fishing, nurseries, wildlife preserves, and agriculture that does not have significant impact on forest health and biodiversity. Other permitted uses can include single-family dwellings, railroads, and essential services to support the area. Forest uses should have a minimum lot size of 20,000 square feet, and areas should be heavily forested. Developed areas should have a density of less than one residence per acre.

The location criteria for forestry areas include:

- Heavily forested areas.
- These areas should not have access to water and sewer services, as to promote development that can pose hazards to forest health.
- Located in the state park.

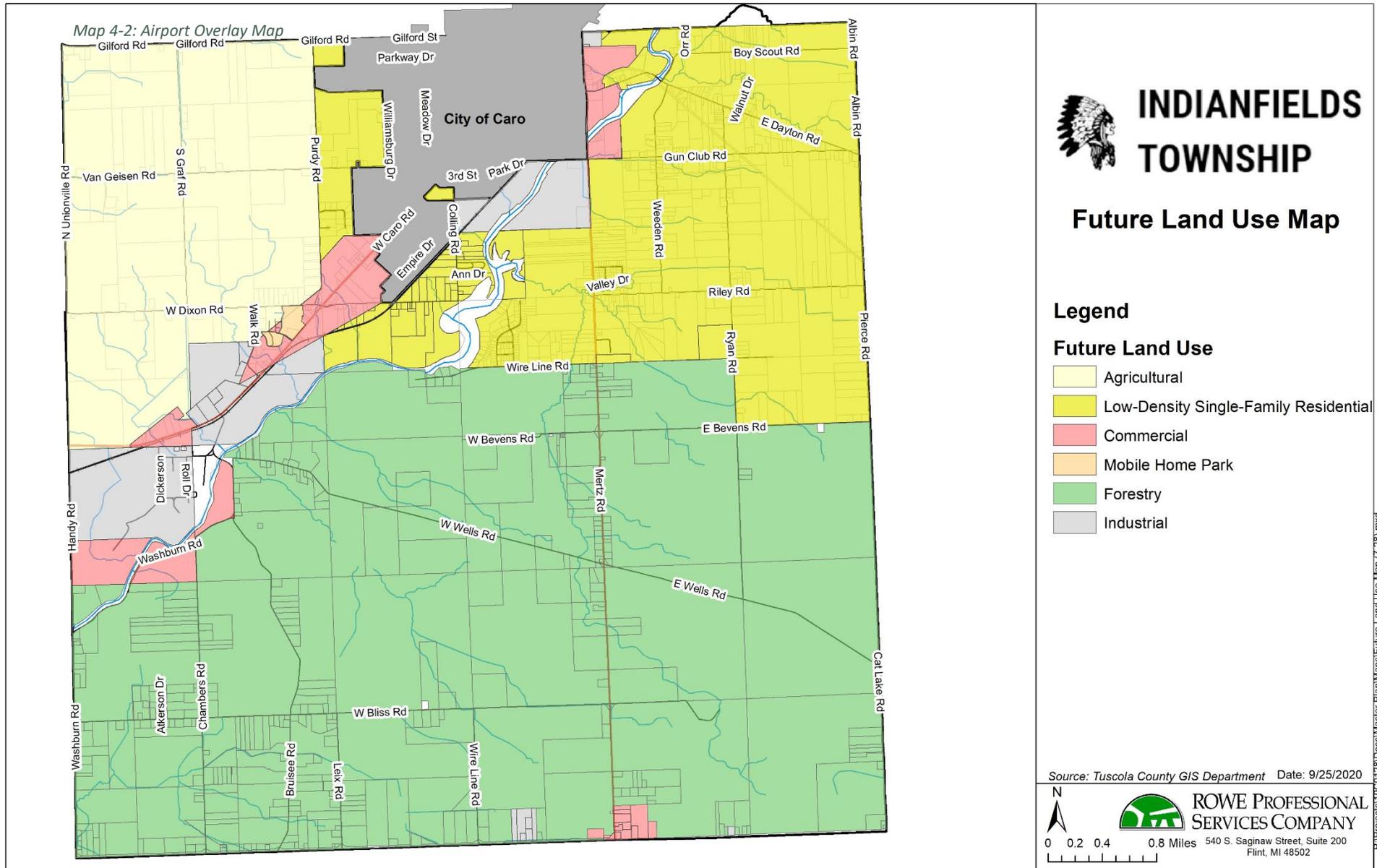
Airport Overlay

The airport overlay use is intended to facilitate safe construction and economic development around the Tuscola County Area Airport. This overlay use provides additional caveats and restrictions to comply with Federal Aviation Administration (FAA) height and safety regulations to ensure building safety and protect airplanes and rotorcraft during takeoff, landing, and maneuvering. Any building more than 200 feet in height will need to be approved by the FAA prior to construction. Structures built within the airport overlay area should not function in a way that poses an unavoidable hazard to airplanes and rotorcraft, nor should it attract hazards into the area such as birds and visual obstructions for pilots.

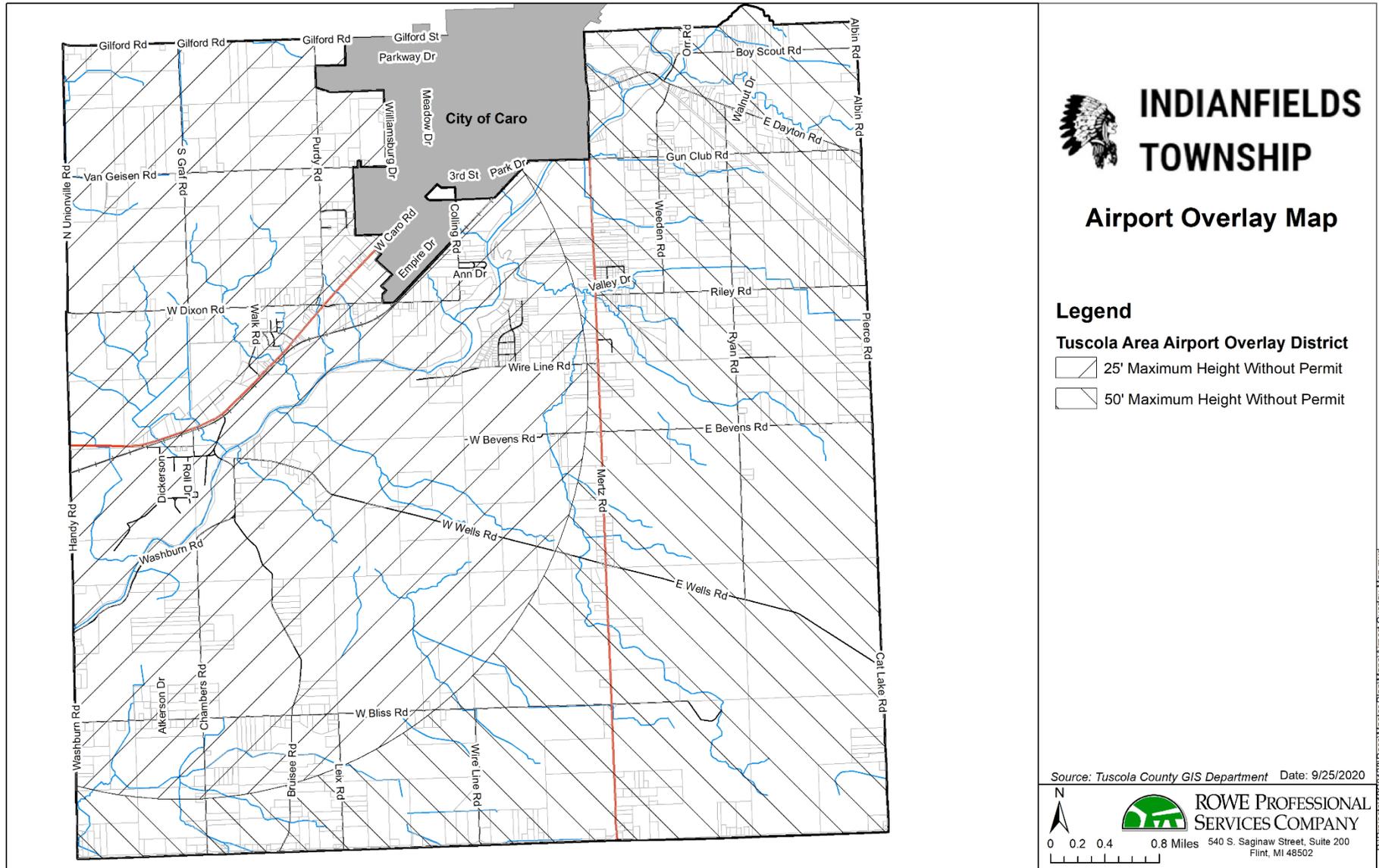
The location criteria for industrial areas include:

- Airport overlay uses will be located within the airport overlay zone.

Map 4-1: Future Land Use Map



Map 4-3: Airport Overlay Map



Chapter 5. Implementation

IMPLEMENTATION PLAN

Zoning

The purpose of an implementation plan is to ensure that the goals, policies, and plans of the Township Master Plan are implemented and that the plan is kept current and maintained. It does this by the use of tools provided to the Township by State laws. This implementation plan will outline the tools that the Township Planning Commission feels would be appropriate in implementing this plan.

One of the preeminent tools used by communities to reach the goals of their Land Use Plan is zoning. Zoning is a regulatory power given by the State to local Townships through the Michigan Planning Enabling Act Public Act 33 of 2008. The act authorizes the local units to establish zoning ordinances controlling the use of property and the height, bulk, and location of buildings on that property. In order for an ordinance to be effective in implementing a master plan, it must be tailored to that plan. When the master plan is updated, the local zoning ordinance should then also be updated to take those changes into account. The Township is presently totally updating their zoning ordinance. This section will review proposed components of the Township's current zoning ordinance that could assist the Township in meeting its stated objectives.

Zoning District Uses

The future land use classifications in the proposed Future Land Use Plan and the proposed district classifications in the proposed zoning ordinance are as follows:

Table 5-1: Zoning Plan

LAND USE	ZONING DISTRICT
Agricultural	AG
Single-Family, Low-Density Residential	R-1
Mobile Home Park	R-2
Commercial	B
Industrial	I
Forestry	F
Airport Overlay	Airport Overlay
Public/Semi-Public/Institutional	No zoning district (AG, R-1, or F)

The plan proposes to do away with one land use category contained in the 1980 plan, that is R-1 Single-Family Residential. The minimum lot size in the R-1 district was 9,600 square feet with sewers and 12,000 square feet without sewers. The uses permitted in R-1 were added, which changed the minimum lot sizes of 20,000 square feet. These changes were implemented through the zoning ordinance. Map 4-1: Future Land Use Map shows the future land use plan for Indianfields Township.

One of the most important changes to the Michigan Planning Enabling Act was the confirmation of a community's right to issue "special use" or "conditional use" permits. The special use permit provides a

zoning ordinance with the flexibility that it often needs to permit a needed high-impact use at an appropriate location while protecting the community's residents.

The current zoning ordinance provides for special use permits and site plan review. However, some changes can be made in the Township's zoning ordinance dealing with special use permits and site plan review to help implement the goals and policies of this plan.

In order to protect groundwater supplies, the special use permit requirements for uses dealing with hazardous material are proposed to be added requiring the applicant show compliance with all state and federal environmental regulations as a condition of permit approval.

Proposed Changes to the Zoning Ordinance

- Evaluate the zoning ordinance for specifically listed alternative housing types and associate “missing middle.”
- Providing incentives for cluster development.
- Evaluate minimum dwelling size to determine if reductions are appropriate.
- Evaluate zoning standards related to the aesthetics of single-family homes.
- Amend the zoning ordinance to prohibit large lot single-family housing developments in the agricultural district.
- Review in the zoning ordinance landscaping requirements.
- Review the zoning ordinance design standards.
- Continuously review the zoning ordinance for new uses that may need to be added.
- Explore adding agriculture businesses to the agriculture district.
- Maintain stringent lot depth width ratios.

Other Implementation Strategies

- Coordinating with the Michigan Department of Natural Resources.
- Review and update this plan regularly to be current with community needs and conditions.
- Establishment of a communication plan.
- Continue to update the Indianfields Township website.
- Encourage commissioners and board members to attend training sessions.
- Encourage one joint meeting a year to facilitate communication between the boards.
- Explore cooperative agreements regarding extension of utilities with the City of Caro.
- Consider strategies that encourage development with internal road systems.
- Work with the chamber of commerce or other business associations to find win-win situations.
- Initiate an aggressive campaign by which to utilize land adjacent to the Caro airport and to attract new industrial uses to vacant and undeveloped industrial land or obsolete industrial land within the Indianfields Township area.
- Provide residents with information regarding programs available for housing rehabilitation assistance.
- Work on updating the parks and recreation plan or coordinate with the county to be part of their parks and recreation plan.

Strategic Plan

In the next five years, the Planning Commission has prioritized the implementation strategies that should be accomplished. When the Planning Commission prepares their annual report, they should

keep these items in minds and see if they are being done. Other items listed in the implementation plan may be appropriate to add as a goal for the following year.

Table 5-2 – Five-Year Strategic Plan

Strategy	Responsible Party	Deadline
Update the zoning ordinance to evaluate concerns brought up in the master plan.	Planning Commission	Currently
Encourage one joint meeting a year to facilitate communication between the boards.	Planning Commission and Township Board	End of 2021
Work on updating the parks and recreation plan or coordinate with the county to be part of their parks and recreation plan.	Parks & Recreation Committee	2021
Conduct a five-year review of the master plan.	Planning Commission	2025

Plan Maintenance and Update

A plan is not a static document. It must be continuously maintained and updated if it is to remain valid. Below are recommendations on methods that the Indianfields Township Planning Commission should adopt to ensure that the plan is adequately maintained.

Updating the Database

This plan is based on certain assumptions concerning the growth of the Township. These assumptions are contained primarily in the plan's database. It is important for the Township to regularly monitor these assumptions to determine if they are still valid. If they become invalid, the Planning Commission must determine what the changes in circumstances mean for the plan Goals and Policies.

1. *Population Growth* - The plan is based on the projection of population growth. There is always a certain amount of guessing that goes into population projections and they should be continuously monitored. This is done on a year-to-year basis by reviewing building permit data (construction and demolition) for housing and projecting population growth from it.
2. *Housing Growth* - The plan makes assumptions on the growth of housing in the Township over the planning period. The Township should monitor housing growth to determine if it is following the projections as noted above with regards to population growth. Also, the mix of housing types between what was projected and what is built may mean certain assumptions on market demand for various housing types was incorrect, which could impact the population projections and also the land use needs contained in the plan.
3. *Housing Cost* - Housing costs should be monitored to see if they are increasing more rapidly than household income during the planning period. A marked increase in housing costs in relation to income may require more aggressive efforts in providing low-cost housing, while stable costs may indicate that current strategies are working in providing a broad range of housing costs. Housing costs are part of the annual assessment reports prepared by the Township Assessor.
4. *Adjacent Planning and Zoning* - Changes in the land use plans or zoning maps of adjacent Townships should be reviewed to consider their impact on Indianfields Township's plan.

5. *PA 33* requires communities to notify the Township before that community makes a decision regarding zoning or planning of property that could affect the Township (and Indianfields Township must reciprocate).
6. *Transportation* - The Township should monitor changes and proposed changes in their roads and streets, possibly with an annual road and street survey. The county road commission's road improvement schedule for area roads should also be reviewed annually for their impact on the plan.
7. *Utilities* - The plan does not anticipate significant expansion of sewer lines in the Township. However, the Township should remain aware of utility development in their area and consider the affect any changes might have on their community.

It is proposed that each Planning Commission member becomes responsible for obtaining one or two pieces of this information to review at an annual meeting.

Reviewing the Plan Goals and Policies

After reviewing the updated information on the database, the Planning Commission should review the goals and policies. Specifically, the commission is looking for goals or policies that are no longer relevant due to changes in conditions or policies that have proven ineffective in addressing goals. Those items that are identified should be deleted or modified in light of the new information. The plan should be officially amended to incorporate the changes in the goals or policies and the basis for the changes should be reflected in public hearing record.

Incorporating Plan Review Into Rezoning Request Review

Although an annual review is necessary for a comprehensive examination of the plan, many problems with a Land Use Plan will become obvious during consideration of a rezoning or special land use permit request. It is important to incorporate review and amendment of the Land Use Plan as part of the Planning Commission's consideration of such requests. This is covered in more detail in the following subsection.

Using the Land Use Plan for Zoning Review

As noted earlier, the primary method of enforcing a Land Use Plan is the zoning ordinance. In order for that to be done effectively, the community's rezoning and special land use permit request and site plan review procedure should be structured so land use goals and policies are considered.

Rezoning Requests

In considering a rezoning request, the primary question to ask is; "Does this request conform to our land use plan?". Three subsidiary questions follow that; "Was there an error in the plan?"; "Have there been relevant changes in conditions since the plan was approved?"; and "Have there been changes in the goals and policies of the plan?". Answering these questions should answer the question whether or not a rezoning request is appropriate and that should frame the reason within the context of the plan.

This method of analyzing a request rests on the assumption that a request that complies with a valid plan should be approved and that one that does not comply with a valid plan should not be. Further, it assumes that the three circumstances that would invalidate a plan are a mistake in the plan, a change in condition that invalidates the assumptions that the plan was built on, or a change in the goals and priorities that the community set for itself.

Mistake - A mistake in a plan can be an assumption made based on incorrect data, an area of a land use map that is incorrectly labeled, or other factors that, if known at the time of the plan adoption, would have been corrected.

Changes in Conditions - A plan assumes that certain conditions will exist during the planning period. If those conditions change, then goals, policies, and land use decisions that made sense when the plan was adopted may no longer be valid and a rezoning that was not appropriate before could be appropriate now.

Change in Policy - In the end, a plan is based on the Planning Commission's vision of what the best future for their municipality is. When that vision changes, the plan should change. When a zoning issue results in a change in vision, a decision can be made that is contrary to the current plan as long as that changed vision is explicitly incorporated into the plan.

Two points should be made. First, the three factors for consideration (mistake, change in conditions, change in goals or policy) can work in reverse, making a proposal that otherwise seems appropriate, inappropriate. Secondly, these factors should not be used to create excuses for justifying a decision to violate the Land Use Plan, or to change it so often that it loses its meaning.

Special Use Permits

The establishment of special uses in the zoning ordinance is based upon the goals and policies in the Land Use Plan. The plan in turn should be used to determine when it is appropriate to permit a particular special use on a particular piece of property. To use the plan to help in making the determinations, the Planning Commission should look at the goals and policies that are appropriate to the type of use being proposed. The goals and policies of the plan should indicate the general intent of the plan regarding this activity and may be more specific in detailing what appropriate criteria are for approving the use. In most cases, this criteria will be reflected in the zoning regulations. In any case, it is important that this connection with the Master Plan goals and policies be stated so that the planning basis for the decision is clear.

APPENDIX

Notice procedure:

1. Notice of master plan initial intent
2. Resolution by Township Board to reserve right to final approval
3. Public hearing notice
4. List of receiving communities of notices
5. Planning Commission resolution for master plan approval
6. Township Board resolution for master plan approval
7. Notice of adoption and transmission of plan.

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