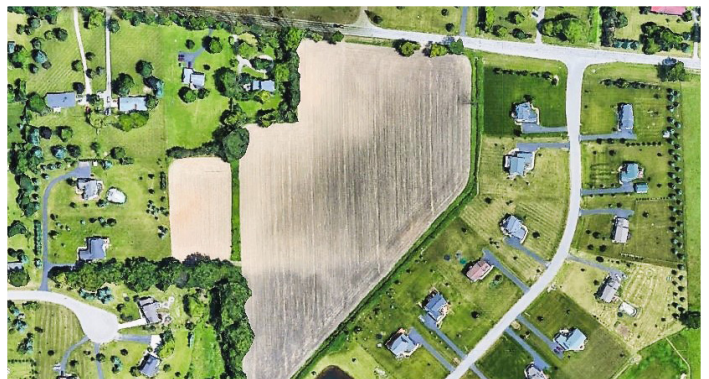




Dexter Township Master Plan



Draft - July 2023

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Acknowledgements



TOWNSHIP BOARD

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Michelle Stambouellis, Clerk
Maris Metz, Treasurer
Laura Sanders, Trustee
Gretchen Driskell, Trustee
Karen Nolte, Trustee
Lonnie Scott, Trustee

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Tom Lewis, Secretary
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Janis Miller, Recording Secretary

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Diane Ratkovich (Former Township Supervisor)
Kathy Bradbury
Maris Metz
Mark Teicher
Marty Straub
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David Rohr (Former Director of Planning & Zoning)

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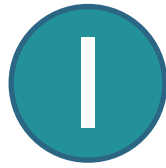
Hiking Trail at Pinckney Recreation Area

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Introduction & History

WHAT IS A MASTER PLAN?

A Master Plan is a long-range comprehensive policy document that guides decisions about future development based on community needs, preferences, and planning best practices. A Master Plan studies the Township's history, evaluates major planning trends and issues, and inventories foundational elements of a community to identify its assets and explore avenues for improvement.

The Michigan Planning Enabling Act (PA 33 of 2008) requires all municipalities to review their Master Plan every five years to determine if an update is required. Since the adoption of the 2011 Master plan, many changes have occurred within Dexter Township and neighboring communities which have warranted a re-evaluation of the Township's policies with respect to growth, development, farmland preservation, and land use. To effectively tailor planning policies and development guidelines, Dexter Township is undertaking proactive efforts to develop a community Master Plan with a strong emphasis on action steps phased over the next 5 years.

The Master Plan serves many functions:

- » First, as a general statement of the Township goals, it provides a single, comprehensive view of what the Township desires for the future. It is a living document that should be used regularly and updated when it is not reflective of the desired outcomes of the Township.
- » Second, it aids in day-to-day decision-making. The Cornerstones outlined guide the Planning Commission and Township Board in their deliberations on zoning, subdivision, capital improvements, and other issues related to Township growth.
- » Third, the Plan provides the statutory foundation upon which zoning decisions are based. The Michigan Zoning Enabling Act

Vision

In 2031, our Township is an engaged community that preserves the natural beauty and ecology of sustainable farms, waterways, open space, and residential areas. We enjoy clean and plentiful water resources, quality roads, communications, and infrastructure that better our daily lives.

Mission

Dexter Township is a policy-driven, collaborative organization that maximizes its efficiency, equity, and effectiveness to achieve the community's vision.

(PA 110 of 2006) requires that the zoning ordinance be based upon a plan designed to promote the public health, safety, and general welfare.

- » Finally, it functions as an educational tool. Background studies and analysis form the basis for various plan elements. This analysis, coupled with the Cornerstones gives citizens, landowners, prospective developers, and adjacent communities a clear description of the Township's vision of the future.

REGIONAL CONTEXT

Situated in the northwestern part of Washtenaw County, Dexter Township is a 33 square mile—mostly rural—township in southeast Michigan. The major north/south access into the Township is Dexter-Pinckney Road, with North Territorial Road as the major east/west access. There are no freeways, freeway interchanges, highways, or rail lines located within Dexter Township. One of Dexter Township's most appealing features is its abundance of lakes, recreational land, and

Map 01: Regional Location

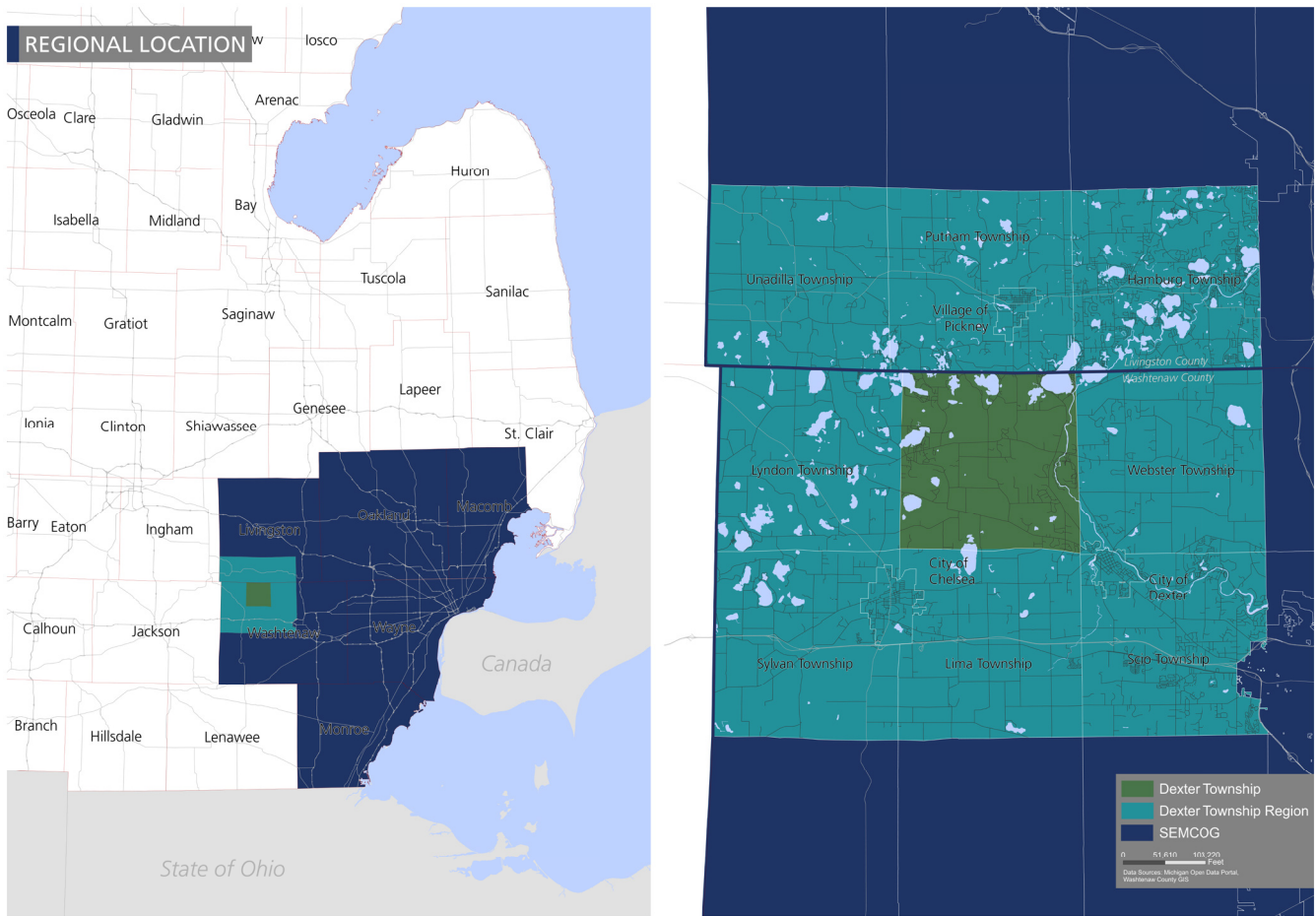


Figure 01: Master Planning Process



agricultural areas. These attributes have attracted residential growth, which remained steady in the 1990s and early 2000s. The Township has several well-established residential subdivisions, resort communities, and proposals for additional single-family residential developments. The primary factor affecting growth in the Township is the availability of land, and its proximity and accessibility to Ann Arbor and the rest of the southeast Michigan employment centers.

Regionally, Dexter Township is a part of the southeast Michigan Council of Governments (SEMCOG) that consists of Wayne, Oakland, Macomb, St. Clair, Monroe, Livingston, and Washtenaw Counties. Based on population, the SEMCOG region is by far the largest of Michigan's 14 planning regions. It contains nearly 5 million people, which is almost half of Michigan's population.

“Dexter Township Region” Context

For the purposes of this Master Plan, the “Dexter Township region” consists of all townships, villages, and cities adjacent to or near Dexter Township's border. This “region” includes Dexter Township, eight adjacent townships, two cities, and one village. Three of the surrounding townships (Hamburg, Putnam, and Unadilla) and one surrounding village (Village of Pinckney) are in Livingston County to the north. The rest of the municipalities including the City of Chelsea, City of Dexter, Dexter Township, Lima Township, Lyndon Township, Scio Township, Sylvan Township, and Webster Township are located in Washtenaw County. Dexter Township is located in the middle of a triangle, with the City of Chelsea to the southwest, the City of Dexter to the southeast, and the Village of Pinckney to the north. The Dexter Township region will be referenced throughout this plan, especially as it relates to social characteristics, land use, zoning, and regional planning. By analyzing the regional setting, the Township can

get a sense of the surrounding environment, land uses, transportation network, and economy that will enable it to better formulate its own goals, policies, and objectives.

HISTORY OF DEXTER TOWNSHIP

Early in the recorded history of Dexter Township are reports of several Native American villages of the Anishinaabe people. The Anishinaabe tribes living in the area included the Ojibwa, Ottawa, Huron, and Pottawatomie. The proximity to the Huron River and Mill Creek made the area desirable for trade and tribal gatherings. Early maps of the area show Indigenous trails in Dexter Township along the Huron River and what is now Island Lake Rd. The first colonial settlers came mainly from New York and made their first settlements in 1825, on the northeast fractional ¼ of section 36. Samuel W. Dexter purchased the east half of section 12 where the Dover Mills were later located. The first town meeting of the original Dexter Township was held in the home of Judge Dexter on May 28, 1827.

The early settlers began farming as soon as the land was purchased. Wheat was the leading crop for some time, and nearly every farm produced corn, barley, oats, and clover, and apples. To this day, Dexter Township remains a mostly rural township with a strong agricultural base.

Until 1832, the entire western half of Washtenaw County, plus parts of Jackson and Livingston Counties, were governed by the original Township of Dexter. It was comprised of land that would later become Dexter, Scio, Webster, Lima, Freedom, Bridgewater, Manchester, Sharon, Sylvan, and Lyndon Townships. A new Township Hall was erected on Dexter-Pinckney Road in 1970. The original frame building used as a Town Hall for many years, located across from the first Catholic cemetery on Quigley Road at the corner of Dexter Townhall Road, was then moved to a site on Territorial Road and converted into a residence.



Silver Lake in Pinckney Recreation Area

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2

Social Characteristics

An analysis of social and economic characteristics provides valuable insight about a community's potential growth and development patterns, and the changing needs and preferences of its residents. A thorough understanding of socioeconomic trends is imperative to address pertinent planning issues, establish sustainable goals, and guide decision-makers to make informed and equitable decisions. This section reviews the historic, existing, and forecasted demographic trends for Dexter Township and the Dexter region and includes a demographic dashboard to highlight community prosperity indicators.

DATA SOURCES

The demographic data in this chapter is derived from the following sources, in this preferred order:

2020, 2010, 2000, 1990, 1980, 1970, and 1960 US Decennial Census

Mandated by the United States Constitution, the decennial census is the most accurate source of information recorded by the United States Census Bureau as it aims to survey 100% of the population. The decennial census is extremely valuable as it provides comparable data points at regular 10-year intervals since 1790. This data is also the basis for congressional apportionment and redistricting which determines funding and resource allocation for a community for the next decade. While the significance of the decennial census for planners is undeniable, it is important to note that the data is limited. This short-form census only covers questions about population and housing. Additionally, the 10-year gap between surveys notes that demographic and housing patterns within the decades are not captured in this census.

2010 and 2019 American Community Survey Estimates

The American Community Survey (ACS) was initiated in 2000 as a replacement of the long-form census and collects more detailed information on social, economic, and housing characteristics compared to the decennial census. Instead of collecting data every 10 years, this survey collects data on an ongoing basis and releases data periodically. However, the long-form makes it difficult to administer the ACS for 100% of the population. Alternatively, this survey samples a percentage of the population, to determine estimates for the overall population; therefore, the accuracy of the ACS depends on the population of the sampling area. To maintain statistical validity, the Census Bureau collects sample data over two different time frames, 1-year and 5-year, depending on the size of a community. In smaller communities, where the population is less than 20,000, data is collected over 60 months to achieve a valid sample size and generate estimates for the overall population. Since Dexter Township has a population less than 20,000 this plan uses the ACS 5-year estimates.

Southeast Michigan Council of Governments (SEMCOG)

SEMCOG produces estimates of population and households for every county and community in the seven-county SEMCOG region including Washtenaw County. These estimates are provided annually. SEMCOG makes occasional adjustments to the estimates as new demographic data about the region becomes available and is incorporated into the estimation process.

POPULATION DEMOGRAPHICS

Number of Current Residents

Dexter Township has steadily grown in population over the past several decades, from 1,698 in 1960 to 6,696 in 2020. This growth is largely attributed to the development of new subdivisions and the conversion of houses in the surrounding lake areas from seasonal cottages to full-time single-family homes.

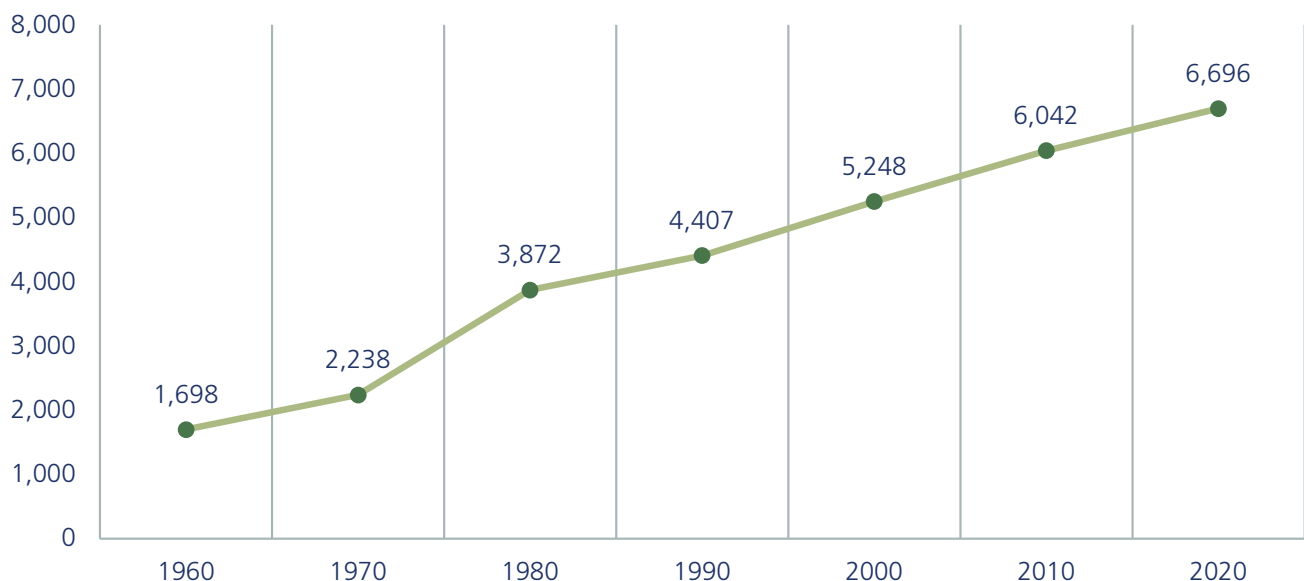
The Dexter region includes the following municipalities: Dexter Township, Chelsea City, Dexter City (Dexter Village prior to 2014), Lima Township, Lyndon Township, Scio Township, Sylvan Township, and Webster Township in Washtenaw County and Hamburg Township, Pinckney Village, Putnam Township, and Unadilla Township in Livingston County. Between 2010-2020, the Dexter region shrunk by 306 residents; however, during the same period the population of Dexter Township increased by 10.8%. Only Lima Township and Sylvan Township experienced faster growth than Dexter Township likely due to I-94 bisecting both townships and their proximity to the M-52 corridor. Unlike the two townships, Dexter Township does not contain any state or federal highways. Despite lacking the convenience of a major highway, Dexter Township continues to grow quickly relative to the region. Scio Township on the other hand witnessed

a drastic population decline of 12.6% in part due to a boundary change with the City of Dexter; in 2014, when Dexter village was designated as a city, Scio Township lost a portion of its residents, which in turn is captured in the City of Dexter's comparable population growth rate of 10.6% over the last decade, in addition to people who moved into the city that decade.¹

Estimated Number of Future Residents

SEMCOG predicts the population of Dexter Township will increase to 7,025 by 2045—an increase of 329 residents (4.9%) from 2020. SEMCOG's 2030 projections of 66 new residents already seem to fall short given the Township's approval of a 48 home subdivision that will likely bring over 100 new residents by 2025. Simultaneously, the population of the Dexter Township region is expected to rise by 12,899 residents over the 2.5 decades, with Dexter Township only capturing a small portion (3%) of the growth in the region. Another notable SEMCOG projection is that 52% of the region's overall growth will occur in Scio Township and Hamburg Township. Given the rising housing costs in the bordering City of Ann Arbor, it can be expected that as Ann Arborites are priced out, they may migrate to Scio Township and other adjacent Townships to seek other housing price points.

Figure 02: Population Growth: Dexter Township, 1960-2020



Source: Decennial Census 2000, 2010, 2020; State of Michigan

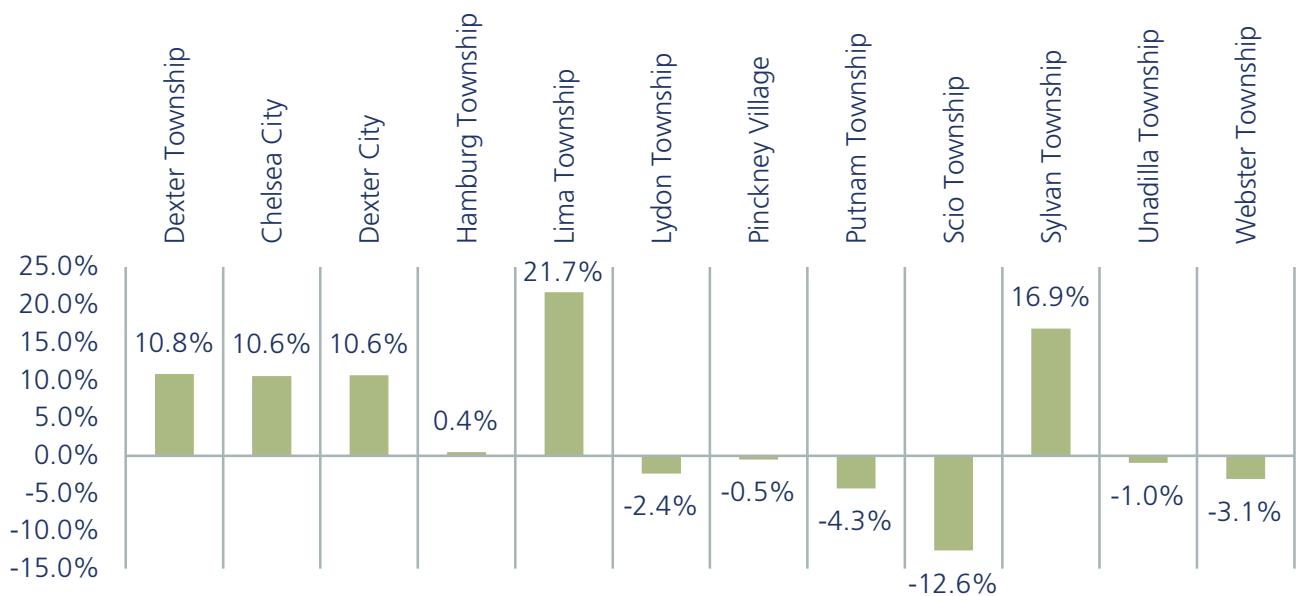
Table 01: Population Change: Dexter Region, 1960 – 2020

	1960	1970	1980	1990	2000	2010	2020	Population Change 2010 - 2020	% Population Change 2010 - 2020
Dexter Township	1,698	2,238	3,872	4,407	5,248	6,042	6,696	654	10.8%
Chelsea City	3,355	3,858	3,816	3,772	4,398	4,944	5,467	523	10.6%
Dexter City	1,702	1,729	1,524	1,497	2,338	4,067	4,500*	433	10.6%
Hamburg Township	3,189	5,481	11,318	13,083	20,627	21,165	21,259	94	0.4%
Lima Township	1400	1,695	2,544	2,585	3,224	3,307	4,024	717	21.7%
Lyndon Township	1,037	1,373	2,057	2,228	2,728	2,720	2,656	-64	-2.4%
Pinckney Village	732	921	1,390	1,603	2,141	2,427	2,415	-12	-0.5%
Putnam Township	2,203	3,354	5,643	6,183	7,500	8,248	7,890	-358	-4.3%
Scio Township	6,156	7,205	8,029	11,077	15,759	20,081	17,552*	-2,529	-12.6%
Sylvan Township	4,401	5,086	5,524	5,827	6,425	2,833	3,311	478	16.9%
Unadilla Township	1,216	1,793	2,874	2,949	3,190	3,366	3,333	-33	-1.0%
Webster Township	1,286	1,981	2,760	3,235	5,198	6,784	6,575	-209	-3.1%
Totals	28,375	36,714	51,351	58,446	78,776	85,984	85,678	-306	-0.4%

Note: Geographies marked with an * underwent boundary changes due to municipal status change in that decade. Scio Township's population included Dexter until 2020 after Dexter became a city.

Source: Decennial Census 2000, 2010, 2020; State of Michigan

Figure 03: Population Growth: Dexter Township, 2010-2020



Source: Decennial Census 2010, 2020.

Table 02: Projected Population Growth: Dexter Region, 2020 - 2045

	2020	2030	2040	2045	Population Change 2020 - 2045
Dexter Township	6,696	6,762	7,005	7,025	329
Chelsea City	5,467	5,913	6,357	6,429	962
Dexter City	4,500	4,625	4,835	4,902	402
Hamburg Township	21,259	21,796	23,569	23,812	2,553
Lima Township	4,024	4,232	4,674	4,856	832
Lyndon Township	2,656	2,581	2,727	2,758	102
Pinckney Village	2,415	2,395	2,589	2,610	195
Putnam Township	5,475	6,183	6,904	7,028	1,553
Scio Township	17,552	18,819	20,927	21,694	4,142
Sylvan Township	3,311	3,610	4,031	4,189	878
Unadilla Township	3,333	3,519	3,759	3,842	509
Webster Township	6,575	6,396	6,931	7,017	442
Totals	83,263	86,831	94,308	96,162	12,899

Source: Decennial Census 2020, SEMCOG Community Profiles

Table 03: Household Change: Dexter Region, 2010 – 2019

	2010	2019	Household Change 2010 - 2019	% Household Change 2010 - 2019
Dexter Township	2,134	2,333	199	9.3%
Chelsea City	2,206	2,189	-17	-0.8%
Dexter City	1,590	1,725	135	8.5%
Hamburg Township	7,752	8,474	722	9.3%
Lima Township	1,260	1,451	191	15.2%
Lyndon Township	1,021	960	-61	-6.0%
Pinckney Village	823	909	86	10.4%
Putnam Township	3,168	3,297	129	4.1%
Scio Township	7,906	6,563	-1,343	-17.0%
Sylvan Township	1,033	1,145	112	10.8%
Unadilla Township	1,367	1,474	107	7.8%
Webster Township	2,225	2,499	274	12.3%
Totals	32,485	33,019	534	1.6%

Source: 2010 and 2019 ACS 5-Year Estimates

Additionally, given this plan is being updated post-COVID-19, it is important to acknowledge that there are several unknown or unpredictable factors that could affect population projections.

HOUSEHOLDS

Number of Current Households

As Dexter Township's population has steadily grown over the last several years, so has the number of households. From 2010 to 2019, the number of households in Dexter Township grew from 2,134 to 2,333—an increase of approximately 9%. Concurrently, the average household size stayed about the same (2.78) between 2010 and 2019, while the average family size increased from 3.03 to 3.24.

Estimated Number of Future Households

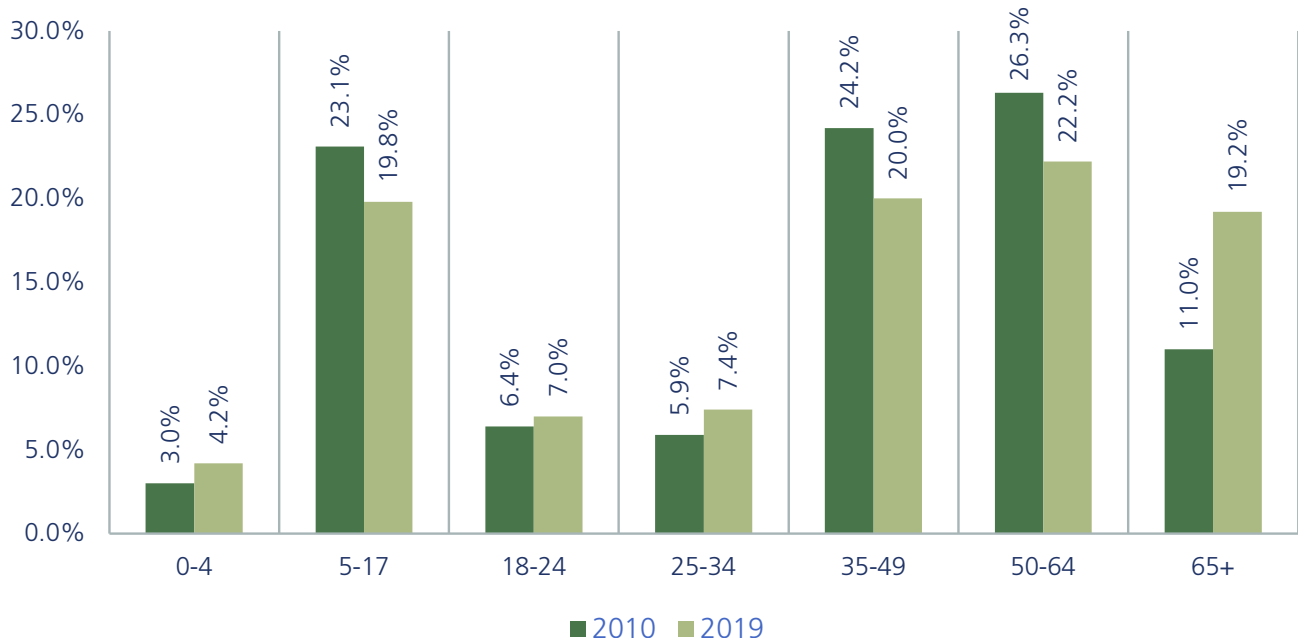
Just as estimating future population is an important element of planning for Dexter Township, it is also important to estimate the change in households to appropriately guide housing and land use policy in the Township. SEMCOG predicts a total of 2,683 households in the Township by 2045—a 15% growth rate. The average household size is projected to drop to 2.58 in 2050 from the 2019 estimate of 2.78; this trend mirrors the state and national trend of shrinking households.

AGE

Dexter Township is aging; in 2019, the median age of Dexter Township residents increased to 44.2 years from the estimated 43.3 years in 2010. The aging population in the Township emulates a regional, state, and national trend, due to the aging of the “Baby Boomer” generation and younger generations have fewer children later in life. Children under the age of 17 years make up nearly one-fourth of the population. The number of children under 17 years of age corresponds to the roughly 42% of the population within the 35-64 years age brackets. These mature families represent strong wage-earners and play a vital role in growing the economy of the Township so continuing to meet the housing and services needs of these “mature families” will be important for the Township.

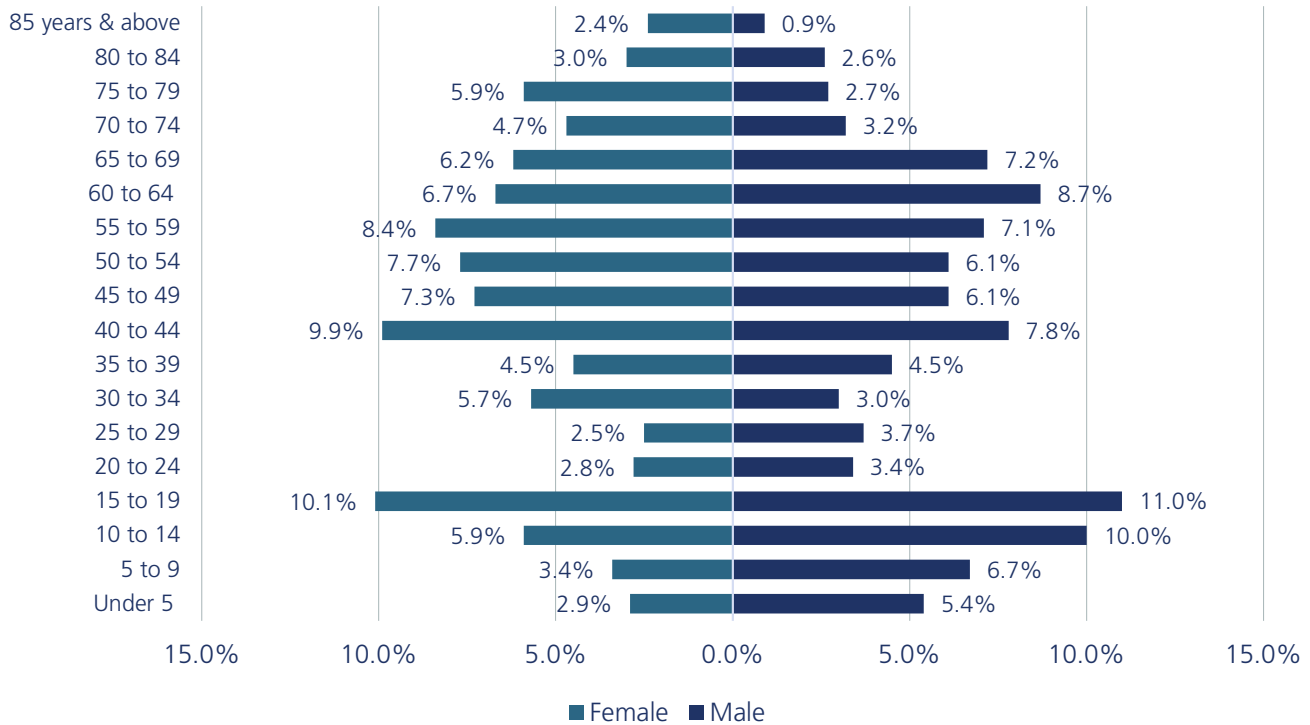
Though the Township has proved marketable to mature families, there is a relatively low percentage of 18-24 year and 25-34 year cohorts. The low concentration of young adults (18-24 years) is likely due to them moving out after graduating high school to pursue higher education. What is more striking is the low ratio of people aged 25-34. New to the workforce, it is possible this age cannot yet afford to move into Dexter Township given the higher home values and limited housing options.

Figure 04: Age Distribution: Dexter Township, 2010 – 2019



Source: 2010 and 2019 ACS 5-Year Estimates

Figure 05: Population Pyramid: Dexter Township, 2019



Source: 2019 ACS 5-Year Estimates

Since the 25-34 age cohort represents family forming years, retaining this population will be crucial to ensure sustained population growth in the Township.

Over the last decade, the senior population—aged 65 years and above—grew by 8.2% and currently constitute nearly 20% of the Township’s total population. Further, SEMCOG’s community profile data predicts that by 2050 the number of senior households will account for approximately 37% of all households. As people live longer, the Township needs to understand the needs of an aging population such as wide range of living, healthcare, and leisure options so that residents can age in place.

RACE

Dexter Township’s population predominantly identify as White. Over the past decade, the Township’s population has slightly diversified, transitioning from a community with 96% identifying as White only in 2010 to 92% in 2020. This change largely comes with about 5.6% of the residents identifying as two or more races in 2020 compared to only 1.6% in 2010. Asians account for 1% of the population while all other races

together only account for 1.5% of the population.

DISABILITY

According to the 2019 ACS Estimates, approximately 560 residents (8.6% of the total population) of Dexter Township had a disability. This number and percentage will likely increase as the population of Dexter Township continues to age, especially in terms of ambulatory difficulty. Much of this population will require specific service needs, such as transportation infrastructure, assisted living facilities, recreational facilities, or other specialized healthcare services.

EDUCATIONAL ATTAINMENT

The educational attainment of Dexter Township residents has changed over the years. There were 5% more residents aged 25 or older with a bachelor’s degree in 2019 than 2010, but slightly fewer with a graduate degree during the same period. Educational attainment is an important statistic as higher educational attainment levels generally correlate with higher earnings or income potential and lower poverty rates, and therefore tends to be an indicator of a community’s economic stability. Surpassing the county and state-wide

trend (95.3% and 90.8% respectively), nearly 98% of persons over 25 years of age have the equivalent of a high school education or better, a 2% increase from the 2010 estimates, signifying the availability of educated and skilled labor in the Township. It also appears that more residents have undergone vocational training as evidenced by the uptick in residents with an associate's degree.

The 2019 median inflation-adjusted household income for Dexter Township was \$104,492, a sizeable increase from the \$89,024 estimate in 2010. The Township's median income figure is substantially higher than the estimated \$72,586 for Washtenaw County and \$57,144 for the State of Michigan. The household incomes for most municipalities in the Dexter region are on average lower than the Township, except Lyndon Township (\$105,000), Scio Township (\$123,906), and Webster Township (\$146,836).

INCOME

Figure 06: Population with a Disability: Dexter Township, 2019

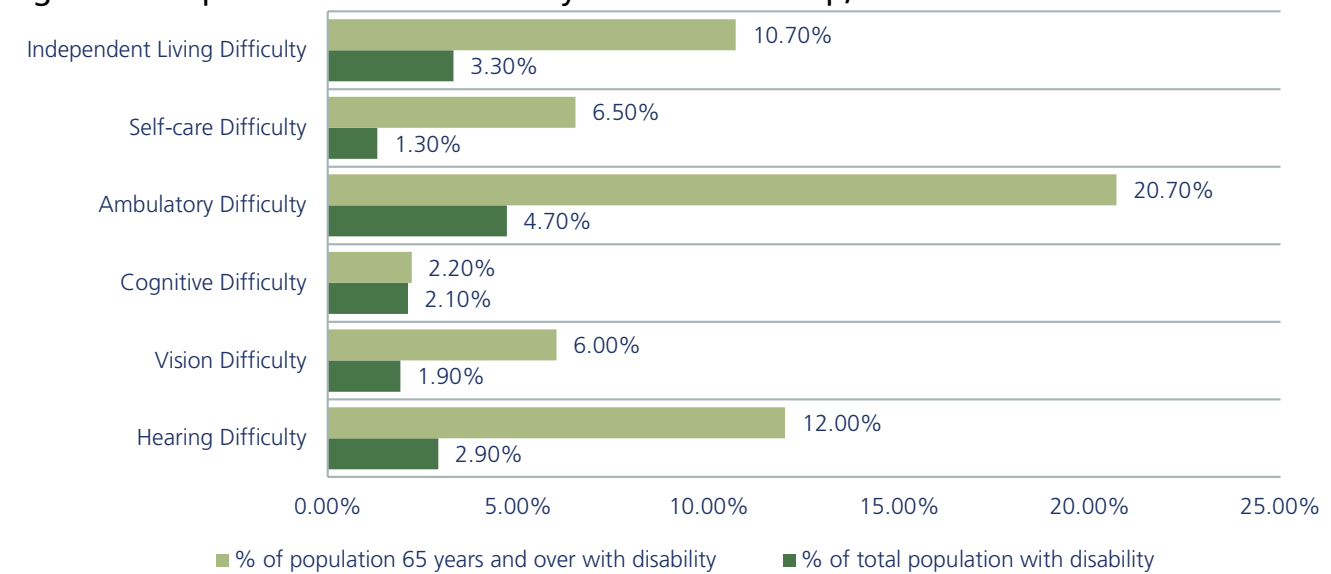


Figure 07: Educational Attainment: Dexter Township, 2010 - 2019

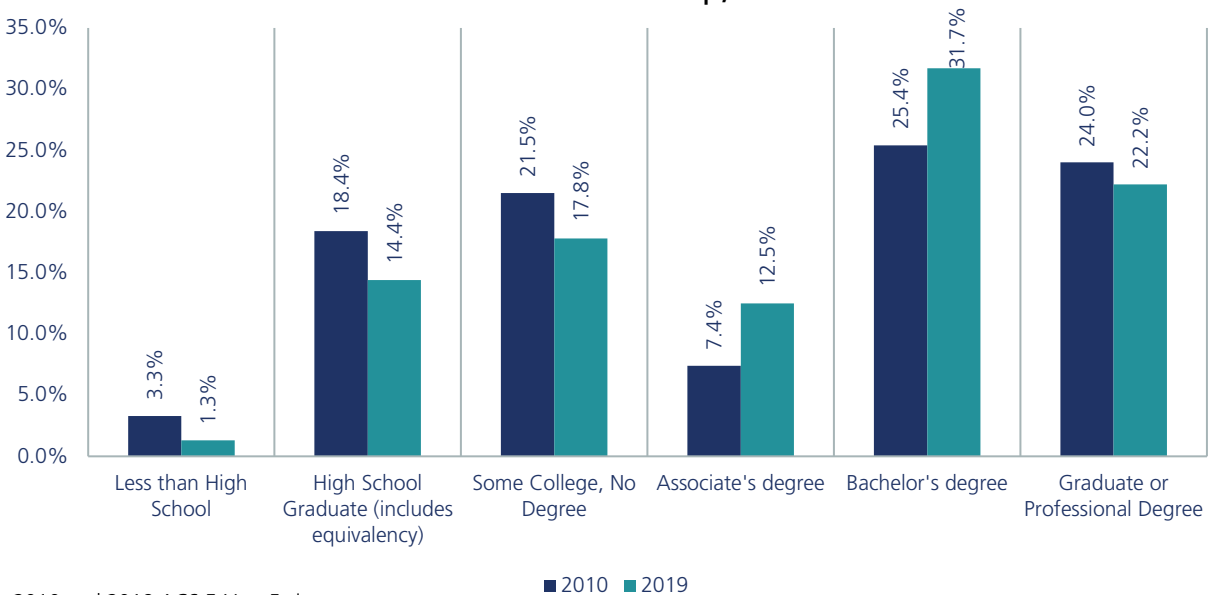
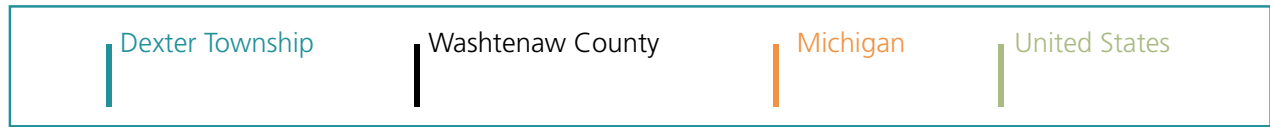
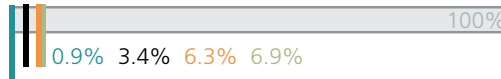


Figure 08: Dexter Township Prosperity Index

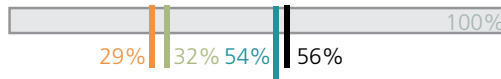


Education

9th to 12th grade education (no diploma)

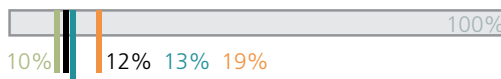


Bachelor's degree or higher

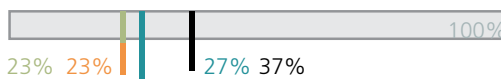


Employment

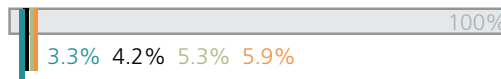
Employment in manufacturing



Employment in educational services, health care, and social assistance

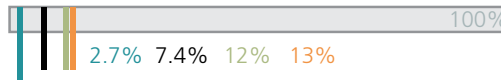


Unemployment rate



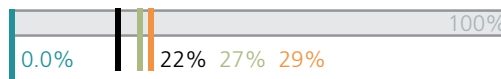
Assistance

Households with food stamp/SNAP benefits in last 12 months

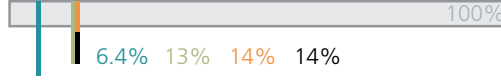


Poverty

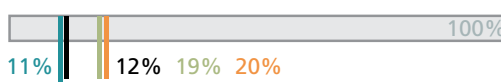
Female head of household, in poverty



People in poverty



Children in poverty



Households

Total Households 2,333

Average Household Size 2.78

Average Family Size 3.24

Median Household Value \$326,000

Median Gross Rent \$937

Commuting

Workers who Commute 96.1%

Commuters who Drive Alone 85.1%

Average Commute 30.3 minutes

Employment

In the labor force 63.6%

Civilian veterans 8.9%

Employed, no health insurance 4.2%

Income

Median household income \$104,492

Male full-time earnings \$86,204

Female full-time earnings \$55,588

65 and older, poverty 4.1%

Industrial Sectors

Manufacturing 13.2%

Retail 5.1%

Sources

- Samuel Dodge, "5 biggest population climbers, fallers in U.S. Census for Washtenaw, Livingston counties", MLive, August 17, 2021, <https://www.mlive.com/news/ann-arbor/2021/08/5-biggest-population-climbers-fallers-in-us-census-for-washtenaw-livingston-counties.html>

3

Physical Characteristics

Following the industrialization of southeast Michigan, the paradigm of prioritizing the built environment over natural environment became the norm. Natural features were often paved over and filled in to provide space for new development. Fortunately, Dexter Township has avoided the worst of this. Part of nature's degradation during this process is a lack of understanding of nature's valuable ecosystem services that have positive, measurable impacts. Communities therefore have a responsibility to protect their natural resources to fully reap environmental, recreational, and aesthetic benefits. This section inventories Dexter Township's natural features and discusses strategies to protect them and integrate them into the built environment.

LAND

Topography

Dexter Township's topography is primarily the result of glacial activity. According to the U.S. Geological Survey, Dexter Township's elevations range between 835-1,040 feet above sea level, though most areas are between 840-1,000 feet above sea level. The highest points, 1,040 feet above sea level, are located around the Inverness Woods Country Club and at Peach Mountain. The lowest points in Dexter Township, about 840 feet above sea level, are located along the Huron River.

SOILS

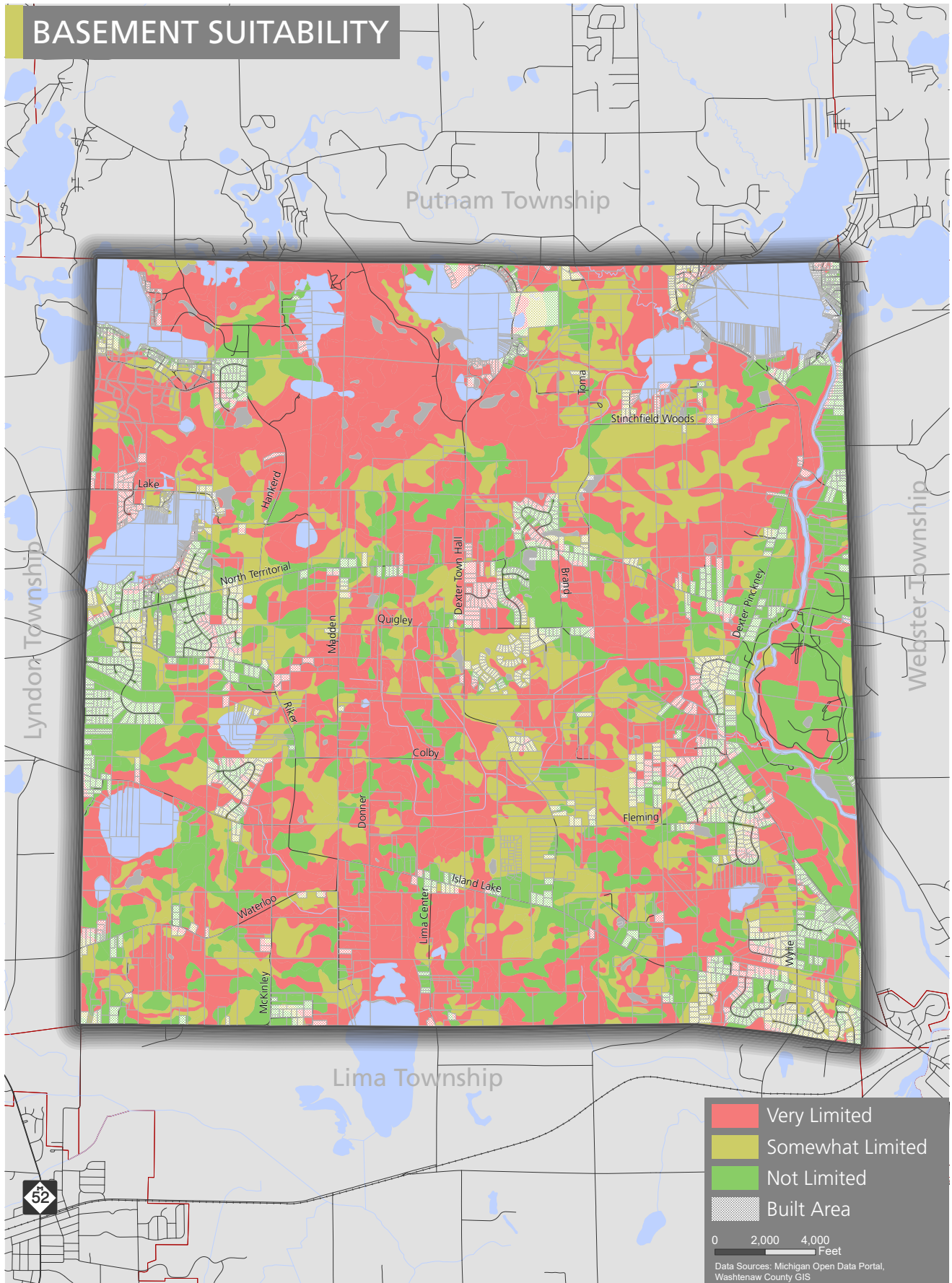
Understanding soil types and characteristics help identify areas that are suitable for development. The United States Department of Agriculture Web Soil Survey provides "Suitabilities and Limitations Ratings" based on several characteristics and is a valuable tool to evaluate areas suitable for development.¹

Residential Development Limitations

The Soil Survey rates each soil type based on the limitations imposed on residential dwellings. Limitations are based on the soil's capacity to support load and resist settlement under load, and those that relate to ease of excavation. The properties that affect the capacity to support load are wetness, susceptibility to flooding, density, plasticity, texture, and shrink-swell potential. The properties that affect excavation are wetness, slope, and content of stones and rocks. Based on these soil properties, limitations on residential dwellings with or without a basement fall into three categories: Very Limited, Somewhat Limited, and Not Limited. "Not limited" indicates that the soil has features that are very favorable for the specified use, "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use, and "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use.

Roughly 28% of the land, excluding acreage of lakes, (5,425 acres) in Dexter Township is rated "Not Limited" and about 31% (5,980 acres) is rated "Somewhat Limited" for single-family houses of three stories or less without a basement. However, most single-family dwelling units in Michigan tend to have basements and the soil survey indicates around 28% of land (5,425 acres) is rated "Not Limited" and 24% (4,635 acres) is rated "Somewhat Limited" for this use (Map 02). The Township should consider the development of new residential dwelling units in the areas falling under the "not limited" or "somewhat limited" categories. While this map gives broad sense of soil limitations, any development policy based on soils should rely on a local soil samples and the ability to

Map 02: Web Soil Survey: Dwellings without Basements



accommodate septic systems.

WATER

Lakes

Of Dexter Township's 33 square mile area, approximately 2.6 square miles (7.8%) is covered by lakes and the Huron River. The lakes completely in Dexter Township include Crooked Lake, Pickerel Lake, Losee Lake, Little Portage Lake, West Lake, Riker Lake, and Dead Lake. Additionally, Halfmoon Lake, Hi-Land Lake, Silver Lake, Portage Lake, Four Mile Lake, Watson Lake, and North Lake are partially in the Township. These lakes as well as the Huron River are used for passive and active recreational purposes. The Multi Lakes Sewer Authority provides sanitary sewer service to the properties around the lakes in northeast portion of the Township. A sewer system is a more sustainable and environmentally safe option, compared to personal septic fields which can leak and pose a risk of environmental contamination.

Floodplains

A floodplain is the land surrounding a river, stream, lake or drain that becomes regularly inundated by the overflow of water. Inundation or flooding typically takes place after rain or snow, and floodplains retain the excess floodwaters. For this reason, keeping floodplains as natural as possible helps to prevent flooding outside of this area.

The Federal Emergency Management Agency (FEMA) designated floodplains in Dexter Township follow the Huron River in the eastern part of the Township and are also located around Little Portage Lake and Halfmoon Lake in the northern part of the Township. The blue floodplain on the map represents a 1% chance of annual flooding, also known as the 100-year flood area, and the yellow floodplain represents a 0.2% chance of annual flooding, known as the 500-year flood area. As seen in the map "Flood Hazard," there is very little land in the floodplains. It is worth noting that properties outside of the floodplains are still subject to flooding. In fact, due to more frequent and intense storms, instances of flooding are expected to increase if not properly planned for in the region.

The term floodway refers to the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the

water surface elevation more than a designated height. A minor strip of land on either bank on the Huron River, illustrated in red, is a FEMA-designated floodway.

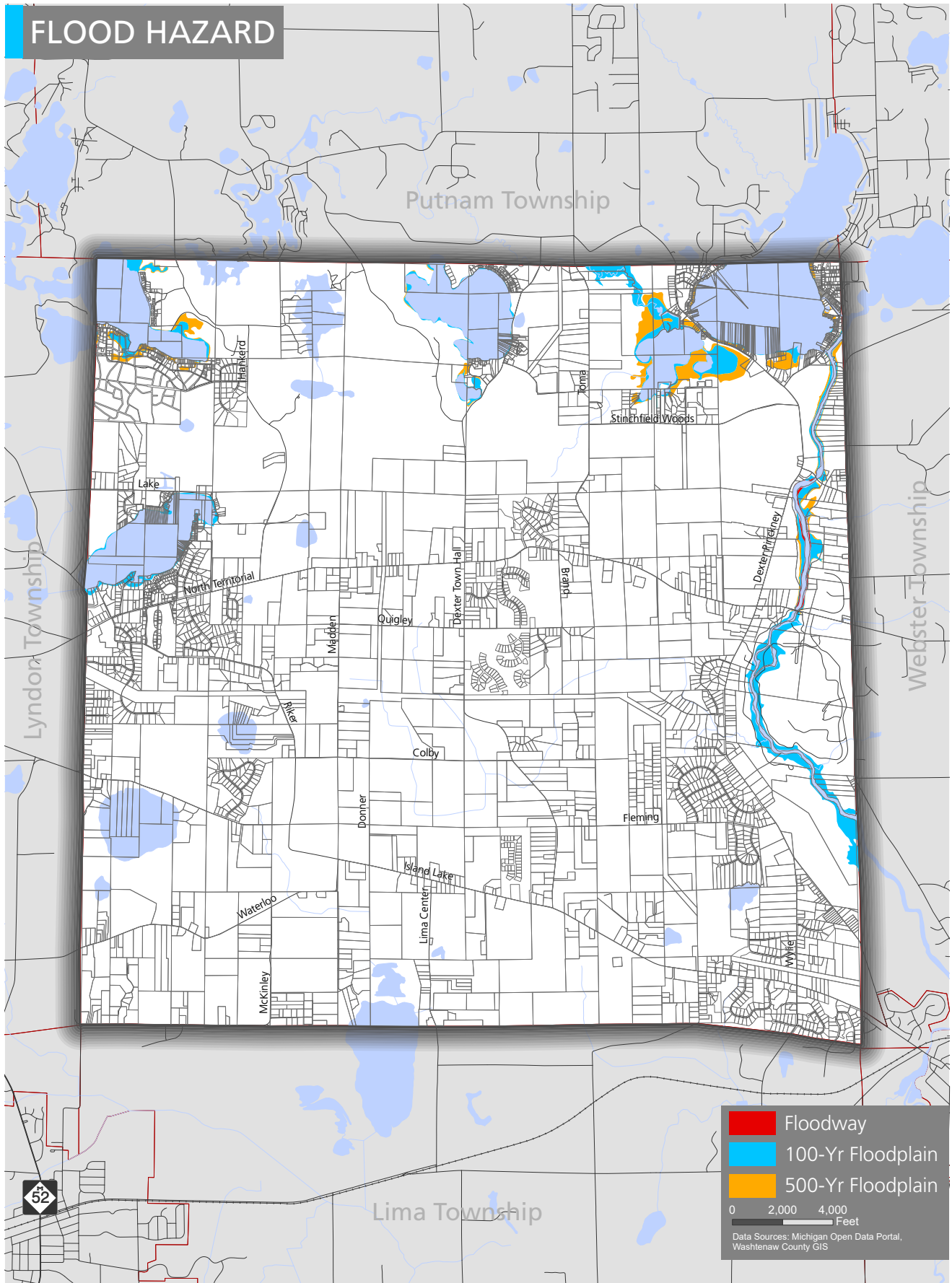
While FEMA designated flood hazard areas provide a baseline understanding of flood risk recent research from the First Street Foundation found that FEMA flood hazard areas underestimate the true degree of risk.

Watersheds

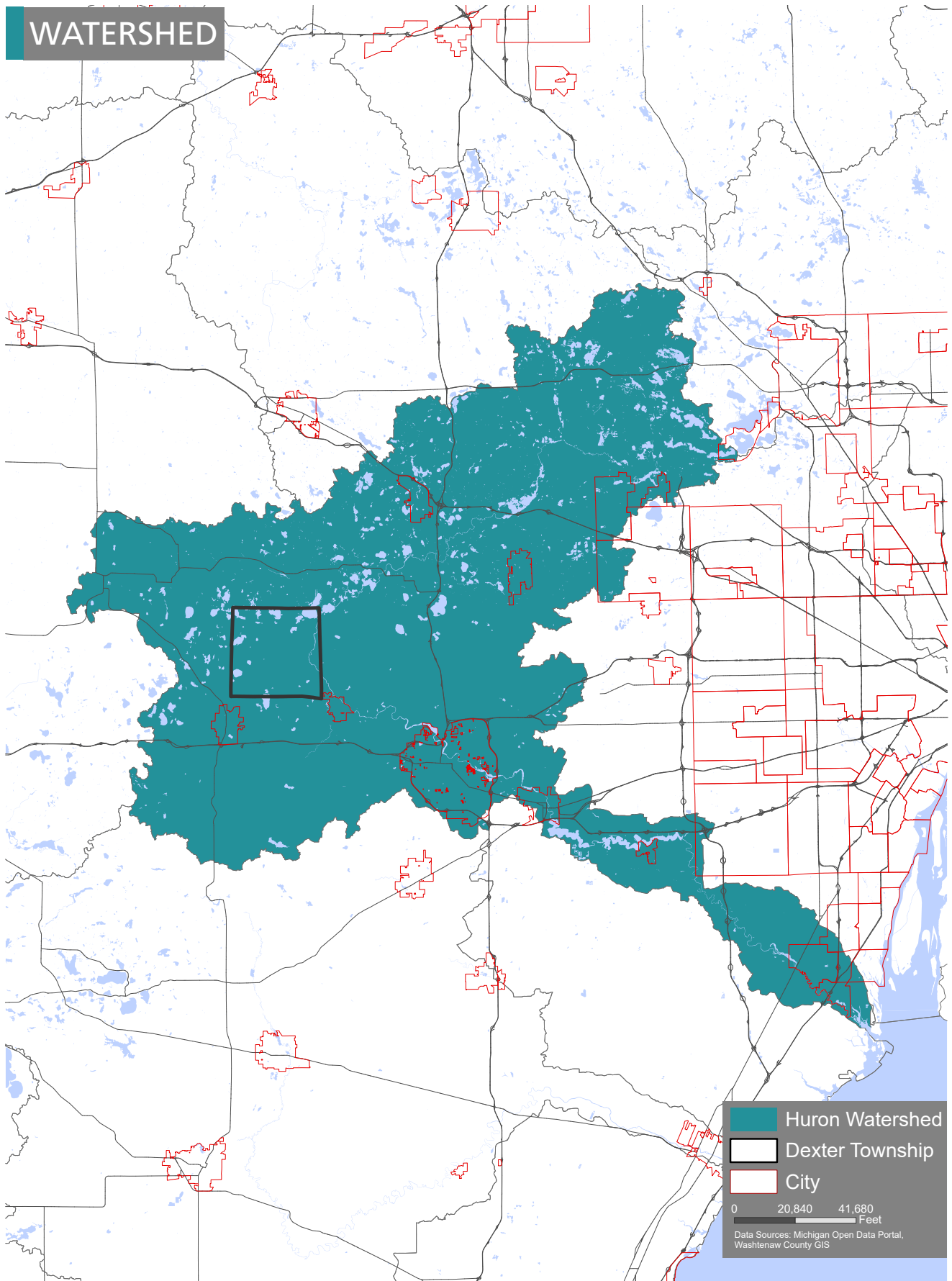
A watershed is an area of land in which all surface waters drain to a common outlet. Dexter Township is located in the Huron River Watershed, which is one of 63 watersheds in the state of Michigan. The Huron River Watershed is approximately 910 square miles and stretches across a seven- county area of southeast Michigan. Water from the watershed collects as far as 70 miles from where it empties into Lake Erie. Due to the large impact individual municipalities' land use policies can have on the watershed, and therefore on other communities, it is best to coordinate issues such as impervious pavement, soil erosion, land use types at a larger scale with greater regional cooperation. Dexter Township can contribute to watershed protection with stronger riparian corridor policies such as greater setbacks from sensitive natural features, including creeks, rivers, lakes, and wetlands, and a reduction in chemical uses on properties adjacent to such features. To this end, the Township has undertaken proactive steps in collaboration with the Huron River Watershed Council (HRWC) to develop a draft of recommended zoning ordinance elements including land use patterns, open space/ land conservation provisions, natural features protection, impervious surface reduction, and stormwater mitigation.

According to the HRWC, there are 24 subwatersheds within the Huron River Watershed, and many of these subwatersheds contain several subbasins. Subwatersheds and subbasins function like watersheds, but on a much smaller scale. Three of these subwatersheds (Mill Creek, Portage Creek, and Huron River) and nine of these subbasins are partially located in Dexter Township. There are several subwatershed management plans that have been facilitated by the HRWC.² Two of the plans that include Dexter Township are the Mill Creek Subwatershed Management Plan and the Huron Chain of Lakes Management Plan; Dexter Township

Map 03: Flood Hazard



Map 04: Watershed



was an active participant in the preparation of the Mill Creek Subwatershed Management Plan. Due to recent water quality concerns in the Mill Creek subwatershed, HRWC is proactively pursuing funding to prevent pollution through conservation easements, ordinances, and education; when the funding is secured, Dexter Township will undertake efforts to update its zoning ordinance to reflect watershed protection best practices.

Groundwater Recharge Areas

Because Dexter Township does not have a municipal water system, the entire Township depends on groundwater for its water source. Therefore, the cleanliness of its groundwater is extremely important. One way to protect the quality of groundwater is to protect groundwater recharge areas from excessive development or storm water runoff. A groundwater recharge area is a highly permeable area that readily permits water to move into an aquifer underground. High permeability decreases the amount of time it takes for water to flow through the soil to the actual groundwater table. Because this time is often insufficient to adequately filter out most natural and manmade pollutants, it is important to keep such pollutants out of these areas in order to avoid long-term and potentially harmful contamination of groundwater supplies.

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) assists communities utilizing ground water to protect their water source through the Wellhead Protection Program (WHPP).³ Wellhead protection areas are defined as a 10-year travel distance for contaminants around the wellhead. In other words, if a contaminant were spilled at the edge of the wellhead protection area it would take 10 years for the contamination to reach the wellhead.⁴ Since Dexter Township solely relies on ground water, participating in the WHPP will help identify and protect areas that contribute to groundwater, identify sites with contamination (if any), provide tools and strategies to mitigate future groundwater contamination, establish regulatory authorities, and develop a contingency plan.⁵

Wetlands

Wetlands are typically defined as land characterized by the presence of water at a frequency and duration sufficient to support wetland vegetation or aquatic life. Wetlands function like natural sponges,

Types of Wetlands

EMERGENT: Characterized by rooted herbaceous hydrophytes, like moss and lichen.

FORESTED: Characterized by woody plants taller than six feet and are usually farther away from water than emergent wetlands.

RESTORATIVE: Areas where wetlands can be fully or as closely as possible restored to their existing conditions.

Source: Michigan Department of Environment, Great Lakes, and Energy (EGLE)

Table 04: Wetlands by Type

Wetland Type	Acres	% of All Wetlands Area	% of Dexter Township Area
Emergent	1191	21.4%	6.2%
Forested	2598.3	46.6%	13.4%
Existing Wetland Total	3789.3	-	19.6%
Restorative	1782.1	32.0%	9.2%
Total	5571.4	100.0%	28.8%

Source: Michigan Department of Environment, Great Lakes, and Energy

Table 05: Wetlands by Size

Size	Acres	% of All Wetlands Area	% of Dexter Township Area
Less than 0.5 acres	12.1	0.3%	0.1%
0.5-1.9 acres	153.1	4.0%	0.8%
2.0 - 4.9 acres	265.8	7.0%	1.4%
5.0 acres and above	3358.23	88.6%	17.4%
Total	3789.3	100.0%	19.6%

Source: Michigan Department of Environment, Great Lakes, and Energy

storing water, filtering pollutants and sediments, and then slowly releasing it. This process helps control erosion and reduces flood heights. Due to the numerous benefits wetlands provide, it is essential that the Township preserve both the quantity and quality of its wetlands. Approximately 29% (8.7 square miles) of land area in Dexter Township is covered by wetlands (excludes lakes).

Approximately 21% of all wetlands are emergent wetlands and nearly 47% are forested wetlands. Restorative wetlands, that need intervention to become fully operational again, make up about 9% of the Township's total land acreage (excludes lakes).

Development on wetlands is strictly controlled by the Michigan Department of Environment, Great Lakes, and Energy (EGLE); any development that deposits, fills, dredges, removes, drains, or constructs on a wetland must receive a permit.⁶ Of the total wetlands in the Township, 258 (60%) are 5 acres or less in size and 172 (40%) have an area of 5 acres or above. This is an important distinction because EGLE only safeguards wetlands that are larger than 5 acres. Since the majority of wetlands are smaller than 5 acres, it is the Township's responsibility to enact strict regulations to ensure their preservation.

The following types of wetlands in Dexter Township are regulated by EGLE through the Public Act 451 of 1994, as amended:

- » Wetlands connected to an inland lake, pond, river, or stream.
- » Wetlands located within 500 feet of an inland lake, pond, river, or stream.
- » Wetlands not connected to an inland lake, pond, stream, or river, but are more than 5 acres in size.
- » Wetlands not connected to an inland lake, pond, stream, or river, but determined by EGLE to be essential to the preservation of the state's natural resources.

TREE CANOPY

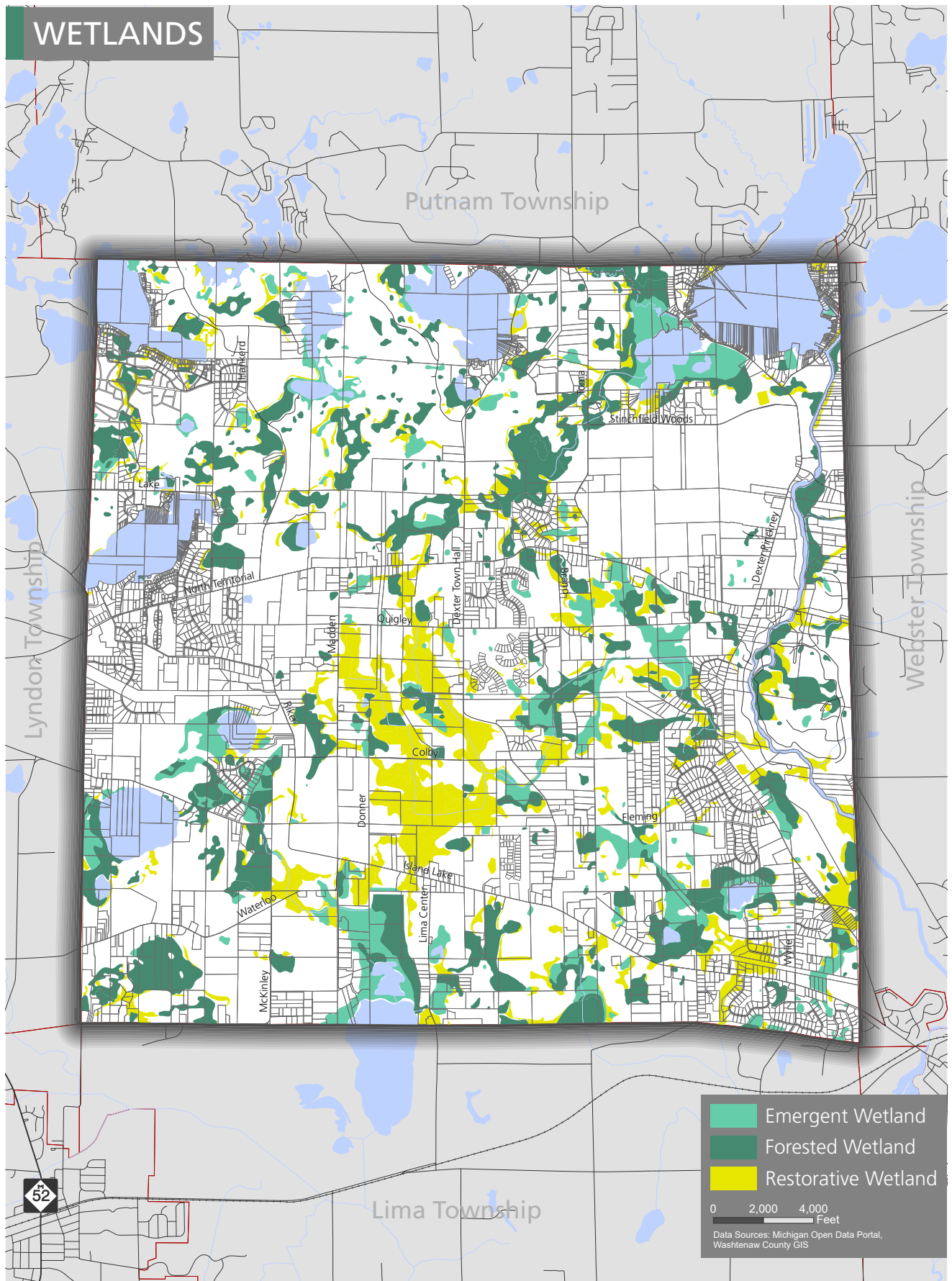
Trees also provide valuable ecosystem services in stormwater infiltration, lowering rising temperatures, reducing heat islands, and providing overall aesthetic value.⁷ The map shows the tree canopy for Dexter Township in 2016. Using remote sensing and satellite imagery, the federal government inventories the tree canopy for the contiguous United States every five years; a new inventory will be conducted shortly.

The map "Tree Canopy Coverage" shows very dense tree canopies on the northern portion of the Township where many of the open spaces and recreation areas are situated. There is also a high density of trees along the Huron River and many of the water bodies.

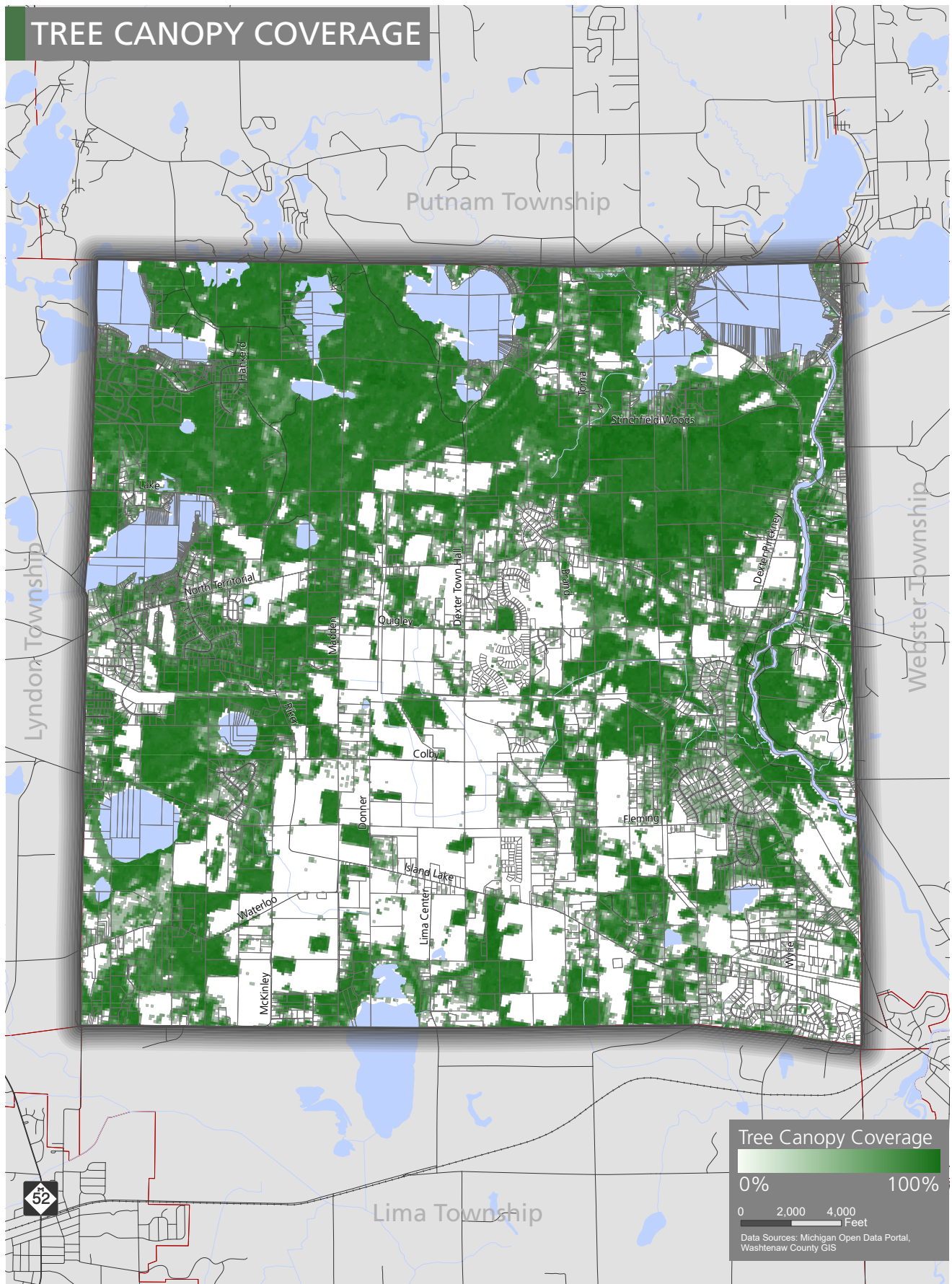
However, tree density is reduced closer to the Township's center where most of the agricultural properties are concentrated. It is imperative to balance development with adequate tree canopy to ensure those ecosystem services in the built environment. Through the Zoning Ordinance, the Township can require new development to plant trees, to use native vegetation, and to what extent the parcel should remain undeveloped. The 2020 updates to the Zoning Ordinance have addressed this with required tree plants designated per lineal feet of the site and per number of parking spaces in a parking lot. Existing trees can also be "credited" to a development's tree requirements to encourage tree preservation and must be replaced if damaged during the process. One further step would be to enact a heritage tree ordinance to protect trees that are of significance to the community either due to their size, longevity, form, location, or historic association.

As important as it is to preserve existing trees and encourage new plantings, it is equally critical to keep out invasive plant species which is "a species that is non-native to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental degradation or harm to human health."⁸ Most invasive species adversely impact native biodiversity, and their removal is tedious and expensive. Identifying, documenting, and restricting invasive species will be a necessary step to preserve the township's existing tree cover and plants. Additionally, including a list of permitted species in the zoning ordinance will help ensure new plantings are compatible with the existing ones. "A Field Identification Guide to Invasive Plants in Michigan's Natural Communities" is a comprehensive guide developed by Michigan State University Extension to help communities identify invasive species and also provides information on monitoring and rapid response.⁹

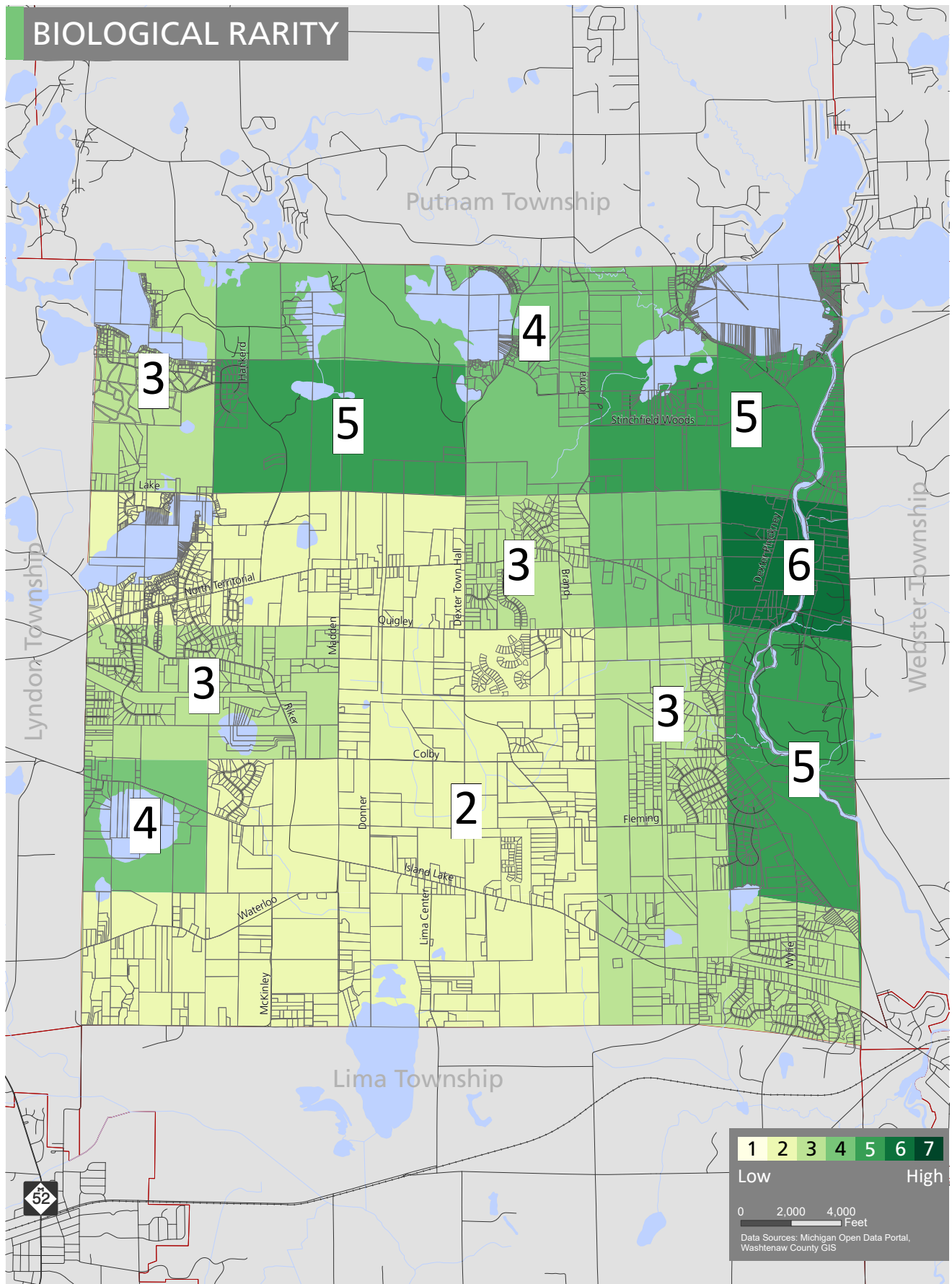
Map 05: Wetlands



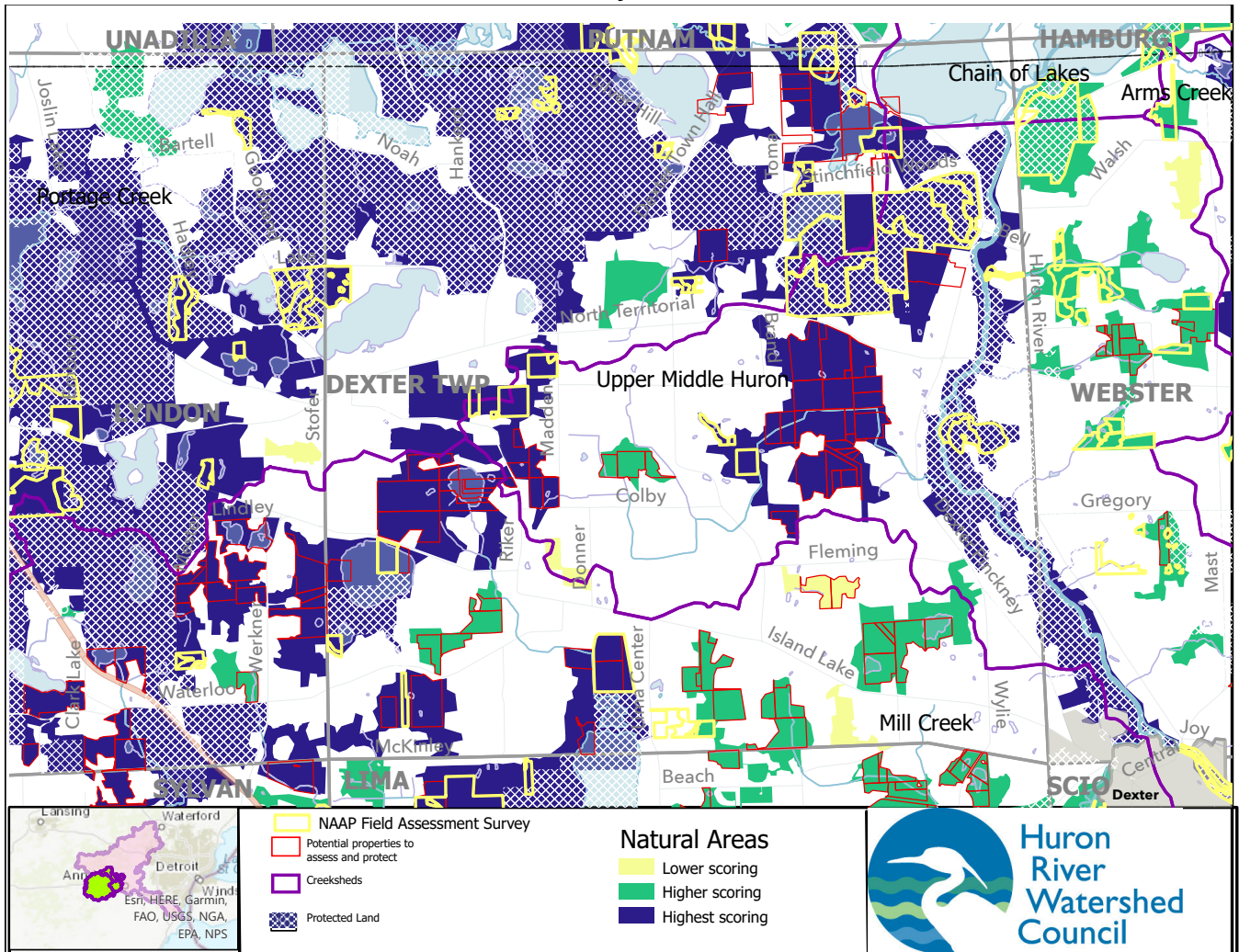
Map 06: Tree Canopy Coverage



Map 07: Biological Rarity



Map 08: Areas of Dexter Township Identified for Protection under the HRWC'S Natural Area Assessment and Protection Project



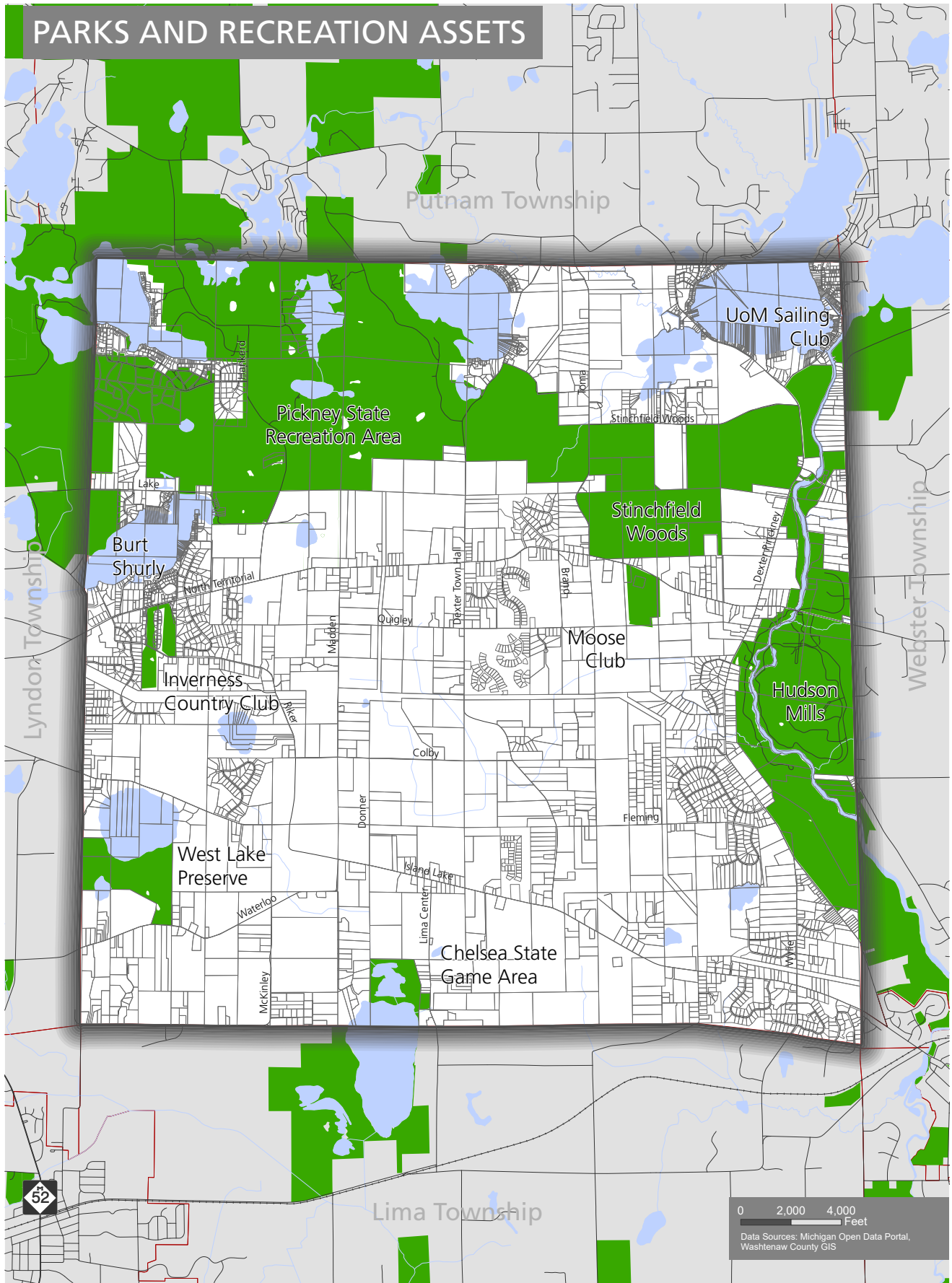
Source: Huron River Watershed Council (HRWC)

BIOLOGICAL RARITY

The term “biodiversity” refers to the variety of living organisms within an ecosystem, and the plant and animal habitats. The Michigan Natural Features Inventory (MNFI) maintains a database of state and federally listed endangered and threatened species. This observational data is converted into the Biological Rarity Index. The Biological Rarity (Biorarity) Index model is based on the MNFI database of known sightings of threatened, endangered, or special concern species and high-quality natural communities. Each record is spatially joined to its habitat using land cover data, streams and rivers, and rail corridors. The records are then assigned three values based on the species’ global status, state status, and occurrence quality rank. These values are multiplied by a likelihood of future sightings based on the age of the database record.

Finally, the scores of all the records in a geographic unit are summed to determine the ecological value for that geography.¹⁰ The map “Biological Rarity” illustrates the areas in the Township by ecological value. The higher the value, the more likely that area has threatened and endangered species. The areas with higher values (darker colors) coincide with the location of several of the Township’s parklands and wetlands and should be prioritized for habitat conservation because of the prevalence of threatened and endangered species (Indiana bat, prairie white-fringed orchid, eastern massasauga). Some of these areas are on private land. Furthermore, the HRWC’S Natural Area Assessment And Protection Project mapped the remaining natural areas in the watershed and ranked them on various ecological criteria; Map 08 shows several high scoring natural areas to be protected in the Township.

Map 09: Parks and Recreation Assets



PARKS AND RECREATION ASSETS

Parkland provides open space and recreation opportunities, creates a more desirable living environment, and enhances the overall well-being of Dexter Township’s residents. The abundance of parks and other recreational land uses make the Township an extremely popular destination for residents and nonresidents alike. With a total of 9 sites, there are 4,994 acres of parks and other recreation assets, comprised of primarily larger parks. In total, parks and recreation assets constitute nearly 25% of the Township’s total area. The table titled “Recreation Assets in Dexter Township” details the parks and recreational spaces in Dexter Township with each asset’s respective type and acreage.

With a total area of 2,665 acres, the Pinckney State Recreation Area is a prominent park in the Dexter

region. A large portion of the state park is located in the northwest corner of Dexter Township and offers several recreational options to the residents. The Pinckney Recreation Area is a paradise for backpackers, mountain bikers, anglers, and other recreation enthusiasts. Pinckney is known for its extensive trail system and chain of excellent fishing lakes. Over forty miles of multi-use trail with remote campsites afford a backcountry experience.¹¹

Situated along the Huron River, the 1,156-acre Hudson Mills Metropark is another notable park in Dexter Township. The park offers access to tamarack swamp, open fields, deciduous forest, vernal, and permanent ponds, and the Huron River. There are several amenities including picnic facilities, hike/bike trails, a nature trail, fishing sites, an activity center, and an eight mile ski trail.¹²

Table 06: Recreation Assets in Dexter Township

Asset	Facility Type	Acres
Inverness Country Club	Golf Course	55.9
Hudson Mills	Metropark	1,156.5
Stinchfield Woods	Nature Preserve	772.6
West Lake Preserve	Nature Preserve	153.2
University of Michigan Sailing Club	Private Recreation	7.5
Moose Club	Private Recreation	60.6
Burt Shurly	Recreation Area	62.1
Chelsea State Game Area	State Game Area	61.2
Pinckney State Recreation Area	State Recreation Area	2,664.6

Source: Southeast Michigan Council of Governments



Lake at Pinckney Recreation Area



Boardwalk at Pinckney Recreation Area

Sources

- 1 Web Soil Survey, <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>
- 2 Huron River Watershed Council, <https://www.hrwc.org/what-we-do/programs/watershed-management-planning/>
- 3 Wellhead Protection, Michigan Department of Environment, Great Lakes, and Energy, https://www.michigan.gov/egle/0,9429,7-135-3313_3675_3695---,00.html
- 4 Michigan Department of Environment, Great Lakes, and Energy, "Wellhead Protection", https://www.michigan.gov/egle/0,9429,7-135-3313_3675_3695---,00.html
- 5 Michigan Department of Environment, Great Lakes, and Energy, "Wellhead Protection Program Guide", https://www.michigan.gov/documents/deq/deq-wb-dwehs-swpu-whpguidebook_256483_7.pdf
- 6 Michigan Department of Environmental Quality. Wetland Permits. https://www.michigan.gov/deq/0,4561,7-135-3313_3687-10813--,00.html
- 7 Carly D. Ziter, Eric J. Pedersen, Christopher J. Kucharik, Monica G. Turner. Scale-dependent interactions between tree canopy cover and impervious surfaces reduce daytime urban heat during summer. Proceedings of the National Academy of Sciences, 2019; 201817561 <https://www.sciencedaily.com/releases/2019/03/190325173305.htm>
- 8 The National Invasive Species Management Plan, <https://www.doi.gov/sites/doi.gov/files/uploads/2016-2018-nisc-management-plan.pdf>
- 9 Michigan State University Extension, <https://mnfi.anr.msu.edu/invasive-species/InvasivePlantsFieldGuide.pdf>
- 10 Biological Rarity Index, Michigan Natural Features Inventory – MSU Extension, <https://mnfi.anr.msu.edu/resources/biological-rarity-index>
- 11 Pinckney Recreation Area, Michigan Department of Natural Resources, <https://www2.dnr.state.mi.us/parksandtrails/Details.aspx?id=484&type=SPRK>
- 12 Hudson Mills Metropark, Michigan Department of Natural Resources, <https://www.michigan.org/property/hudson-mills-metropark>

4

Land Use

Land use is the most foundational piece of community planning because of the substantial impact on residents’ daily lives. Community identity is often tied to land use patterns. In Dexter Township, for example, land use and community identity are tied to its rural setting: the natural and agricultural landscape. However, future regional population growth could create development pressure that could infringe on the Township’s agrarian history, in the absence of a realistic and achievable land management and preservation strategy. The following chapter will inventory existing land use patterns and advance the initial concept of a land preservation suitability strategy.

EXISTING LAND USE

Using the assessor’s land codes, almost half of the Township is classified as residential land. The residential subdivisions in the Township are primarily located along N Territorial Rd, Dexter Pinckney Rd, Dexter Townhall Rd, and the eastern quarter of Island Lake Rd. While there are smaller groupings of residential properties, subdivisions contribute the bulk of the residential properties.

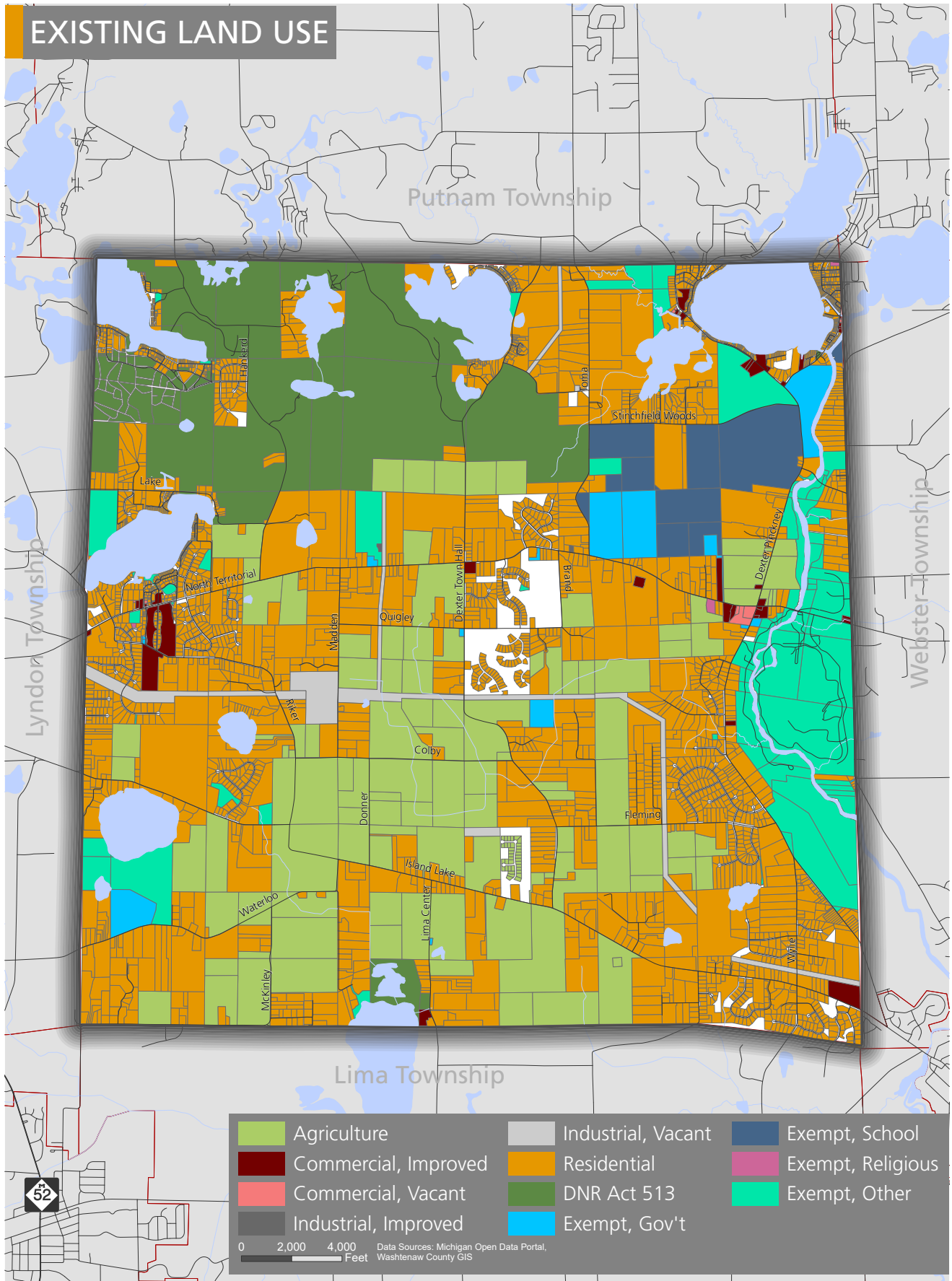
Agricultural land accounts for slightly over one-fifth of the total Township land and is highly valued by residents for its aesthetic, viewshed and cultural contributions to the community. Agricultural properties are located predominantly

Table 07: Land Use Classifications

Land Use Classification	Acres	Percent of Total Acres
Agriculture	4,368.0	21.7%
Commercial	191.5	1.0%
Improved	176.3	0.9%
Vacant	15.2	0.1%
Industrial	337.8	1.7%
Improved	2.3	0.0%
Vacant	335.5	1.7%
Residential	9,537.3	47.3%
DNR Act 513	2,998.0	14.9%
Exempt	2,724.0	13.5%
Government	358.8	1.8%
Schools	597.2	3.0%
Religious	6.4	0.0%
Other	1,761.6	8.7%

Source: Dexter Township Assessor

Map 10: Existing Land Use



Map 11: Prime Farmland

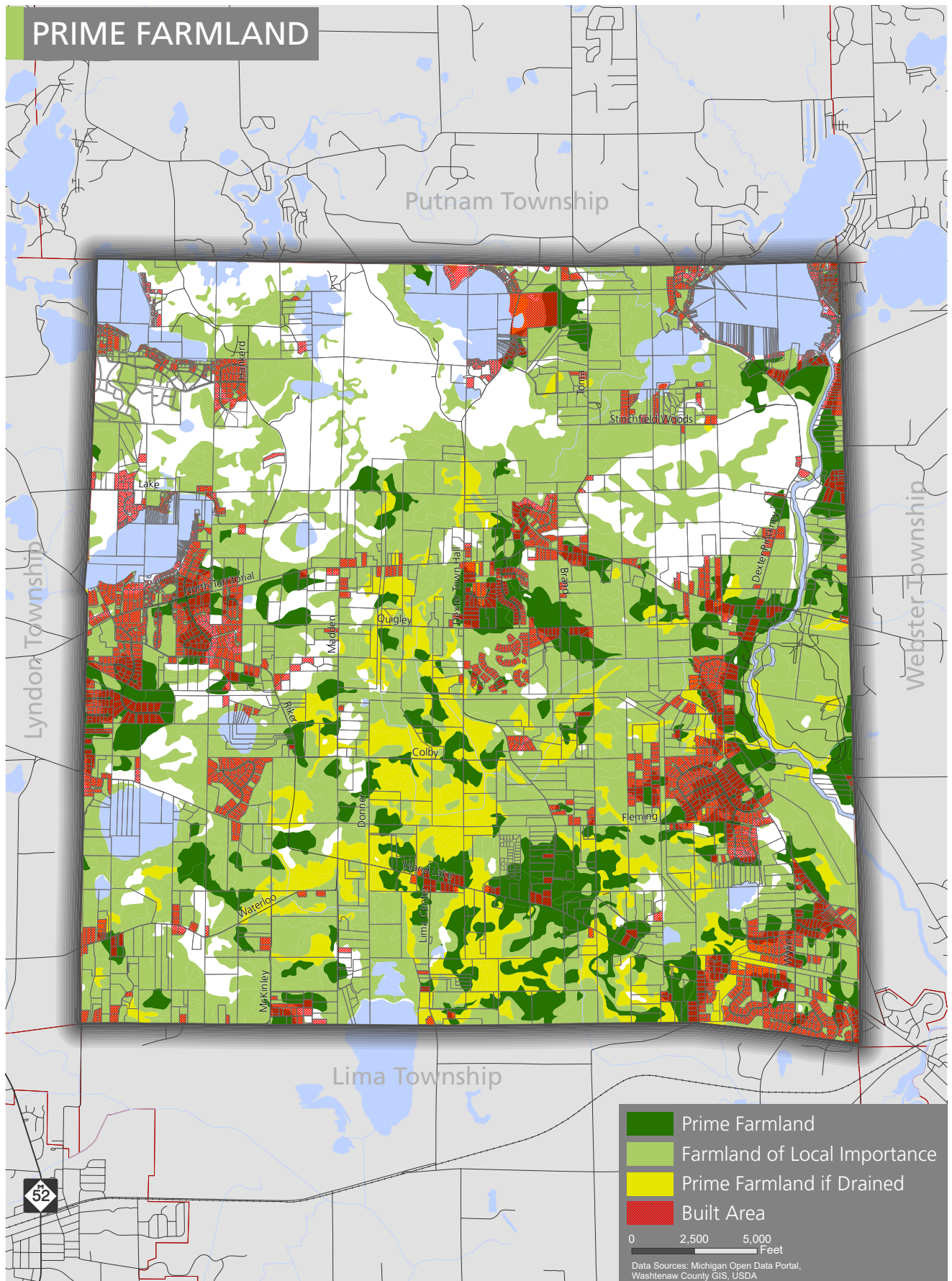


Table 08: Washtenaw County Agricultural Census

	2007	2012	2017
Total Farms	1,300	1,236	1,245
Total Acres Operated	166,681	170,154	178,995
Income per Farm (\$ 2021 adjusted)	\$23,484	\$25,668	\$18,441
Land and Building Value per Acre	5,003	5,095	7,823

Source: USDA Agricultural Census 2007, 2012, 2017

in the center and southern areas of the Township. In addition to existing agricultural properties, soil maps from the United States Geological Survey show what areas have “prime farmland” and “farmland of local importance.” Prime farmland is defined as soils with the best physical and chemical properties for producing food, feed, forage, fiber, and oilseed crops. Farmland of local importance is land designated by the state or another local body as being important for the production of the same crops as prime farmland.¹ Exactly half of the Township is defined as farmland of local importance, 16% is prime farmland, and 9% is potentially prime farmland if the soil is drained to appropriate saturation.

Every five years, the United States Department of Agriculture surveys all farms and ranches in the United States that have conducted over \$1,000 in agricultural-related business. The table titled “Washtenaw County Agricultural Census” highlights some key statistics from the last three censuses.

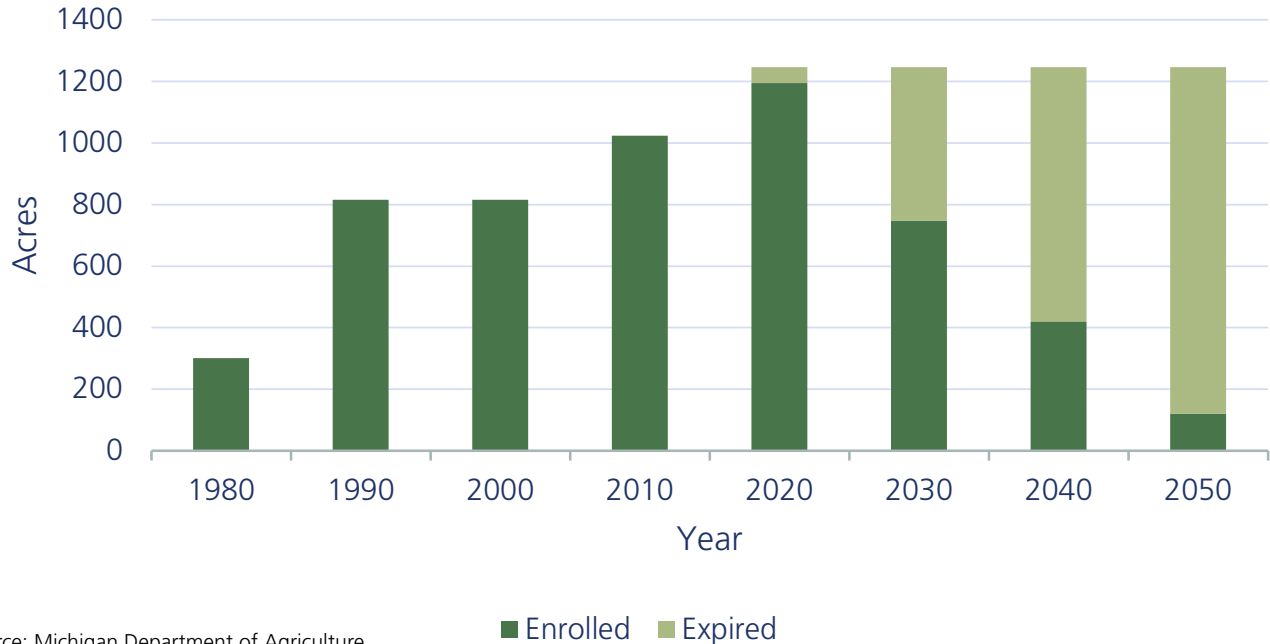
Farmland acres have been increasing over the past 15 years, even as the number of farms declined from 2007 to 2012 by roughly 5%, indicating a concentration of farmland among fewer operators. Additionally, farm-related incomes are at the lowest level since 2007 after peaking in 2012, which will make it difficult to draw workers to the field. As the value of farmland increases, local farm operators within the Ann Arbor Metropolitan Area will likely experience pressure to sell their land for other uses, such as, residential development. These two trends combined threaten the agrarian landscape. Dexter Township has estimated there are 12 farms in the Township.

One strategy for increasing farm income, and simultaneously preserving farmland, is the Michigan Farmland and Open Space Preservation Program (PA 116). This is a voluntary agreement between a landowner and the state of Michigan

in which the landowners receive tax benefits and exemptions in exchange for preserving their land for agriculture.² In Dexter Township there are 12 such agreements, as of January 2021, with the most recent agreement signed in 2014.³ In total, 1,195 acres are covered under this program indicating that roughly 27% of all of the agricultural land is in a preservation agreement. However, five of these agreements totaling 200 acres expire in 2023. The figure “Farmland Acres Enrolled in PA 116” illustrates that if no new land is enrolled in the program by 2050, 90% of the preserved agricultural land will be unprotected. Dexter Township has a dedicated committee, The Farmland and Open Space Preservation Board, to tackle farmland and open space preservation at the local level. The committee was formed in 2021 and key responsibilities include exploring strategies to preserve land, engaging the community, and reaching out to local landowners with information and options for land preservation. In 2022, Dexter Township voters approved a 10-year 0.5-mill tax to support farmland and open space preservation. Through this program, Dexter Township can enter into agreements with property owners to secure development rights to their properties. The properties remain in private ownership but must be maintained as open space or farmland.

Farmland that is built upon is irretrievably lost; rarely is development torn down to revert to agricultural uses. Some of southeast Michigan’s most productive farmland is now residential subdivisions. This presents a land use conflict in a community that does not want to encroach on prime agricultural land. Farmland is largely protected through zoning, however due to prevailing trends in agricultural operations, the Township has loosened some regulations on agricultural land to allow other revenue generators to make farmland more profitable. For example,

Figure 09: Farmland Acres Enrolled in PA 116



Source: Michigan Department of Agriculture

special land uses have been included such as campgrounds, bed and breakfasts, and wineries to diversify the land’s output.

Other land classifications that have a substantial presence in the Township are DNR Act 513 land. DNR Act 513 is a classification for state land which is normally exempt from local property taxes but follows an agreement in which the Township receives payment from the State of Michigan in lieu of property taxes. The Pinckney Recreation Area is under this agreement. Other “exempt” land in the Township includes the Hudson Mills Metropark and other publicly owned recreation facilities that are not subject to tax capture by local government.

LAND PRESERVATION SUITABILITY

To determine which parcels are susceptible to conversion from agricultural to residential development a land preservation suitability matrix was developed to determine which properties would remain stable, or unchanged, in the future and those that could be transformed. For example, MDNR, University of Michigan and HCMA properties are likely to remain unchanged in the future. Conversely, prime agriculture and waterfront properties could be susceptible to transformation. Other properties that are owned by tax-exempt organizations (township, churches, etc.) and properties with known wetlands, or properties with soils that do not percolate have a

potential for transformation if the site conditions are remediated, or properties are sold. The adjacent graphic illustrates this methodology.

Using the GIS parcel database, parcels in the Township were classified using the nine (9) matrix criteria. The resulting assessment rendered a map that color codes the parcels based on the matrix, except for parcels that have residential parcels which are color coded in white. The map entitled, “Land Preservation Suitability Matrix,” visually shows that the north and eastern portion of the Township will remain in a stable status due to the presence of State and regional parks,

Figure 10: Land Preservation Suitability Matrix

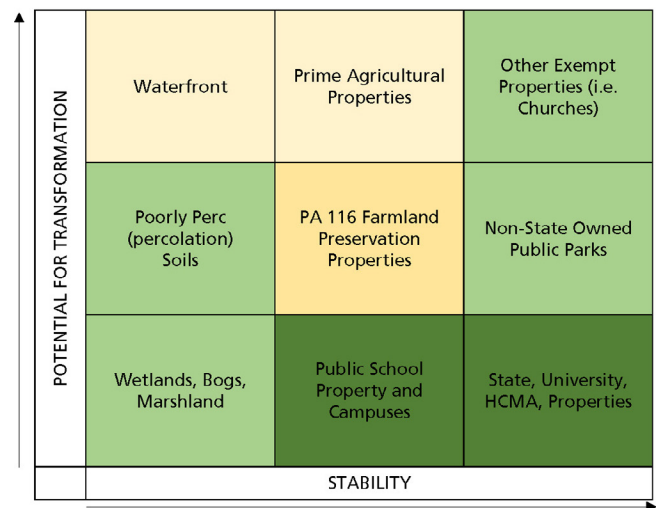


Table 09: Land Preservation Suitability Matrix

Category	Acres	Percent	Acres	Percent	Status
MDNR, Metropark, University and Public School Properties	5,313	27%	5,313	27%	Stable
Other Exempt Properties	957	5%	1,377	7%	Stable-Moderate
Non-State Owned Public Parks	419	2%			
Poorly Percolated Soils	2,264	12%	4,708	24%	Impaired
Wetlands, Bogs, and Marshes	2,444	13%			
Prime Agricultural Properties	2,613	14%	3,287	17%	Ag-In Play
PA 116 Farmland Preservation Properties	674	3%			
Vacant Developable Properties	522	3%	1,804	9%	Other In-Play
Waterfront	1,282	7%			
	16,488	85%	16,488	85%	
Residential Improved Properties	2,840	15%		15%	
Total Township Land Acres (excluding lakes)	19,328	100%		100%	

and the University of Michigan. Parcels subject to transformation are centrally located in the Township. Data from the analysis suggests that 27%, or 5,313 acres are highly stable, and another 7% or 1,377 acres are moderately stable from further development. This amounts to 34% or 6,690 acres are likely preserved and not subject to future change.

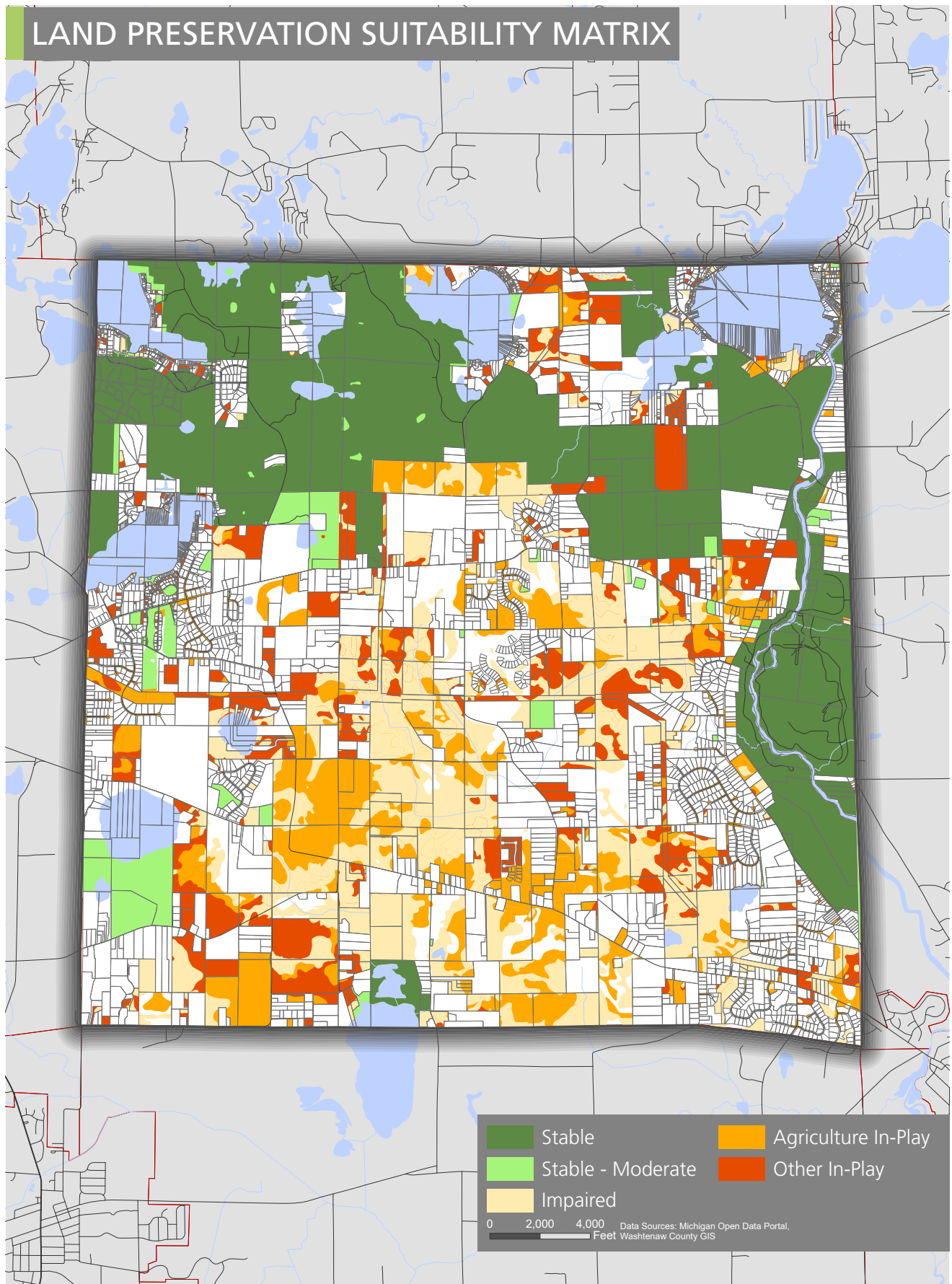
Another 25% of the parcels, or 4,708 acres have poor soils for septic percolation or are delineated as wetlands. These parcels are classified as “impaired” because they could be subject to further development if the underlying site conditions are remediated. For example, poor soils for septic systems can be remediated through an engineered septic field or community sanitary system. 5,091 acres, or 26% of the Township could be classified as “in play”: meaning that depending on zoning and development pressures could be susceptible to development. The greatest category is the prime agricultural properties which account for 14% of the total Township acreage at 2,613 acres. Table 09 enumerates the results of the land preservation suitability matrix assessment.

Sources

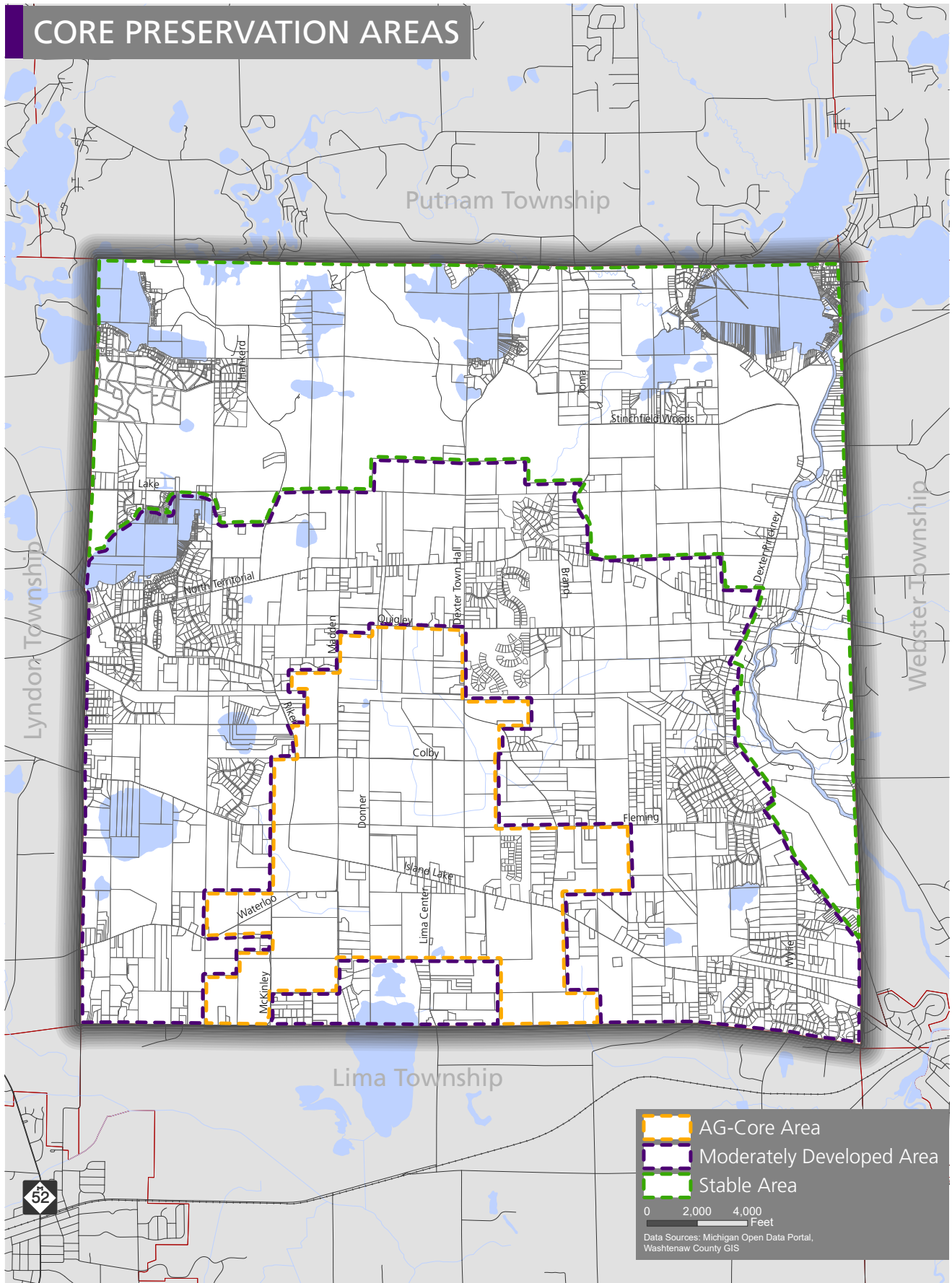
- 1 “Prime and Other Important Farmlands Definitions”, United States Department of Agriculture, https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/pr/soils/?cid=nrcs141p2_037285
- 2 “Farmland Preservation”, Michigan Department of Agriculture and Rural Development, https://www.michigan.gov/mdard/0,4610,7-125-1599_2558---,00.html
- 3 Michigan Department of Agriculture and Rural Development

The outcome of the land preservation suitability assessment indicates that the central core of the Township has a concentration of PA 116 farmland and prime agricultural properties that will likely determine the final community character of the Township. Sandwiched between the STABLE properties on the north and east boundaries of the Township are either subdivisions or large lot residential estate properties, with some remaining prime agricultural properties referred to as the “MODERATELY DEVELOPED AREA.” The area defined as the “AG-CORE AREA” mirrors the current zoning map where Sections, 21, 27, 28, 29, 32 and 34 are designated as agriculture. The map entitled, “Core Preservation Areas,” graphically shows this general land use pattern. The difference between the moderately developed and ag-in play area is the minimum lot size regulated by the Zoning Ordinance. The moderately developed zone is primarily zoned Rural Residential (RR) with a minimum lot size of 2 acres per dwelling unit and the Agricultural (A) zone has a minimum lot size of 5 acres per dwelling. Both zoning districts allow the use of the Open Space Community Overlay District (OSC) which allows a mix of single family, duplexes, and multiple family housing (§15.05) along with density bonuses subject to an increase in dedicated open space and superior design components (§15.08).

Map 12: Land Preservation Suitability Matrix



Map 13: Core Preservation Areas



5

Housing Analysis

EXISTING HOUSING

The 2020 Census recorded 2,791 housing units in Dexter Township.¹ Nearly all of these (95%) are single-unit detached dwellings, and the remainder are single-unit attached dwellings, duplexes, mobile homes, and a small number of apartments. Most housing units (75%) were designed for families, with three or four bedrooms.² It would be expected that the housing stock could lose appeal over time as households and families are predicted to shrink; however, given the rise of working from home, additional bedrooms that serve as office space could be valuable.

Residential construction in the township had two major growth periods: between 1960 and 1979, when 28% of the housing in the township was built, and between 1990 and 2009, when 32% of the housing stock was built.³ Construction has slowed considerably since 2009, a period that is marked nationally by a housing foreclosure crisis and slow recovery. This absence of immediate, overwhelming development pressure provides a good opportunity to engage in growth management planning, which was an extremely high priority to citizens surveyed at the height of the most recent construction boom (2007).

Residences are not uniformly distributed through the Township: density ranges from less than one dwelling unit per acre (DU/ac) to three DU/ac.

Table 10: Housing Unit Type, 2019

Housing Unit Type	Percent
1-unit, detached	94.8%
Mobile home	2.0%
Other	3.2%

Source: 2019 ACS 5-Year Estimates

In general, residential development is clustered near transportation corridors, especially Dexter Pinckney and North Territorial roads, around the Township's lakes, and in the corner of the Township nearest the City of Dexter. This distribution serves the Township's strong interest in environmental protection by limiting the overall area for development where it is best suited, for example, in proximity to transportation and the City of Dexter. Lakeside residential development, while generally dense and resistant to sprawl, also imposes an environmental burden on the lakes. Management of this burden requires intentional handling of the stormwater and wastewater generated by the development, and also requires attention to practices that affect lake health such as fertilizer and pesticide application. In many cases, there is simply a physical limit to the amount of development that can occur around a given body of water while preserving the health of the waterbody.

TENURE AND AFFORDABILITY

Nearly all (95%) of the homes in Dexter Township are owner-occupied. The median value is quite high at \$326,000.⁴ Within the Dexter region, only Webster and Scio Townships report higher median values. Yet only 15% of owner-occupied households in the Township report paying more than 35% of their household income on housing costs ("cost-burdened"), a proportion that is similar throughout the Dexter region (range: 8% to 23%).⁵ This is a function of the community's high median income (\$104,492, compared to \$62,843 nationally and \$57,144 in Michigan), which is in turn driven by its high educational attainment (54% have a bachelor's degree or higher, in contrast to 32% nationally and 29% in Michigan⁶). The higher home costs may be an obstacle for those who want to buy into the community on a moderate income.

Map 14: Residential Density

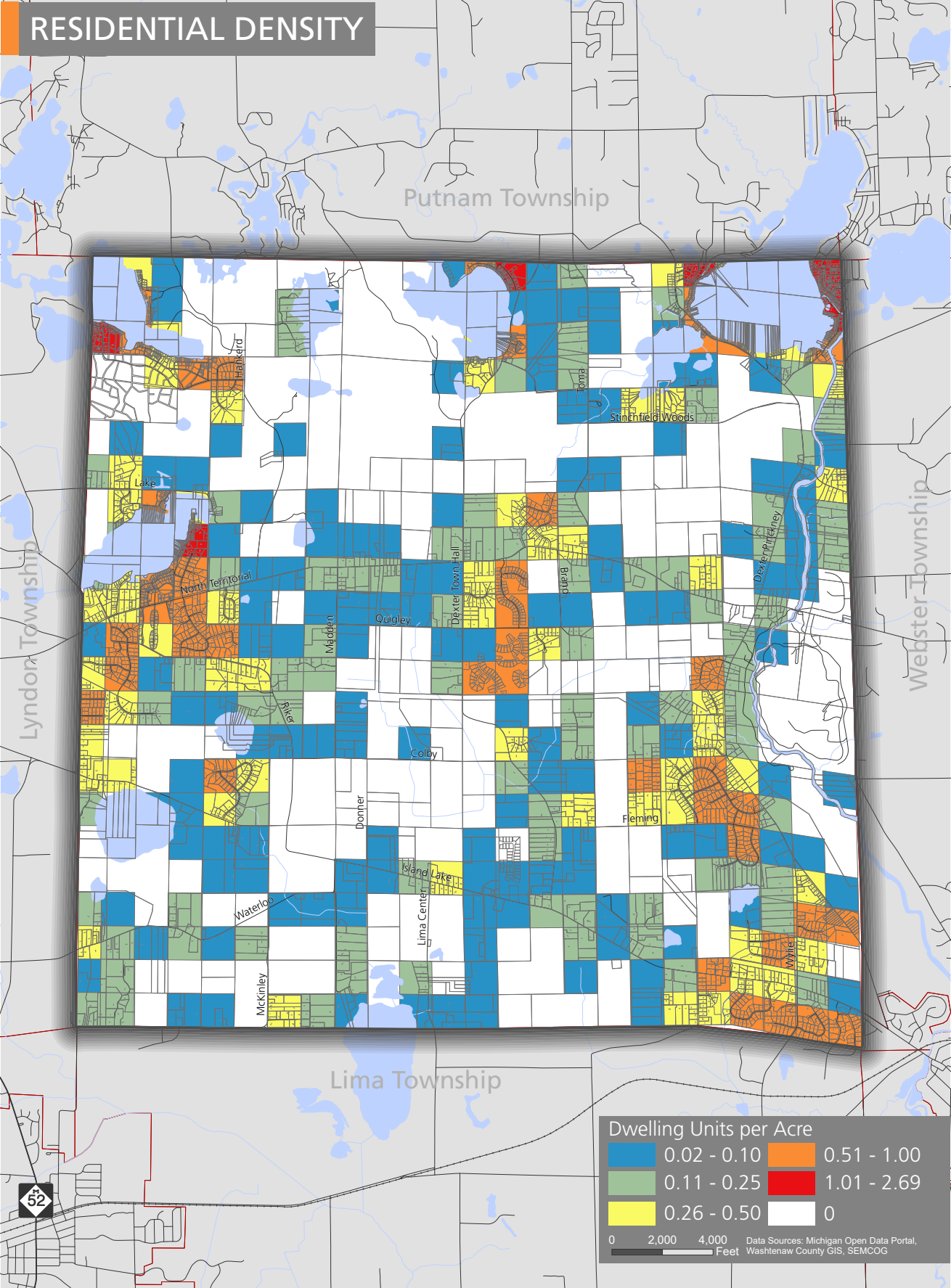
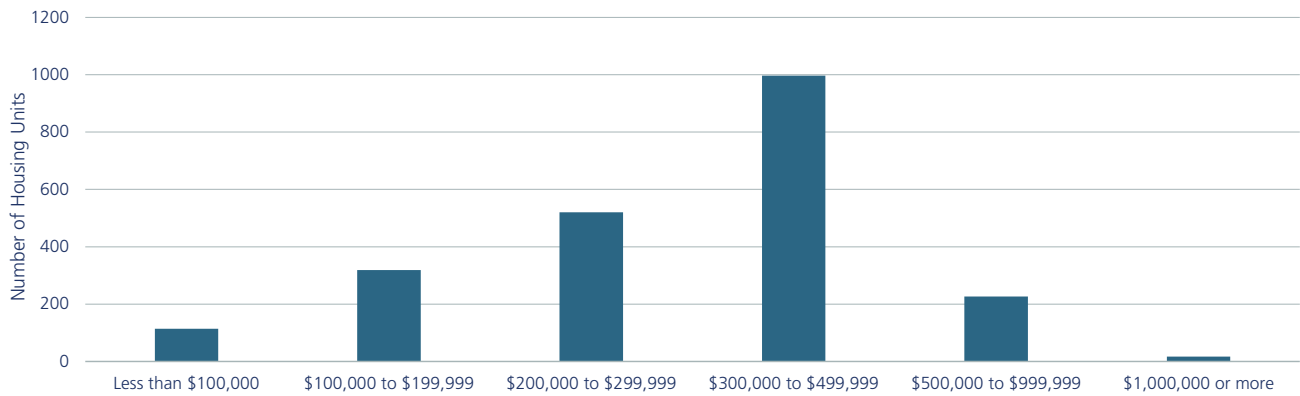


Figure 11: Owner Occupied Housing Value



Source: 2019 ACS 5-Year Estimates

Among the Township’s renters, more than twice that proportion (37%) are considered cost-burdened.⁷ This trend also holds true throughout the region where the average percentage of cost-burdened renters among all comparable communities is 31%, and exceeds 40% in Unadilla Township, the Village of Pinckney, and the cities of Chelsea and Dexter. Two-thirds of the cost-burdened renting householders in Dexter Township are over the age of 65, and the remaining third is between 35 and 65.⁸ These figures demonstrate that the economic difficulty of living in the Township is not confined to younger households who simply have yet to reach their earning potential.

The 2007 Dexter Township survey reported that the residential type with greatest approval from residents was single-unit structures built on large lots. Also acceptable to respondents were subdivisions with common open space preserved, “smaller sized homes that are more affordable,” and specialized housing for seniors and those with special needs. The survey found that the residential types most likely to be “strongly discouraged” were apartments, duplexes, and mixed-density/mixed-use residential communities. Building permit data from SEMCOG confirms that no two-family, multifamily, or attached units have been constructed in Dexter Township over the last 20 years, whereas 667 single-unit permits were granted over that time period.

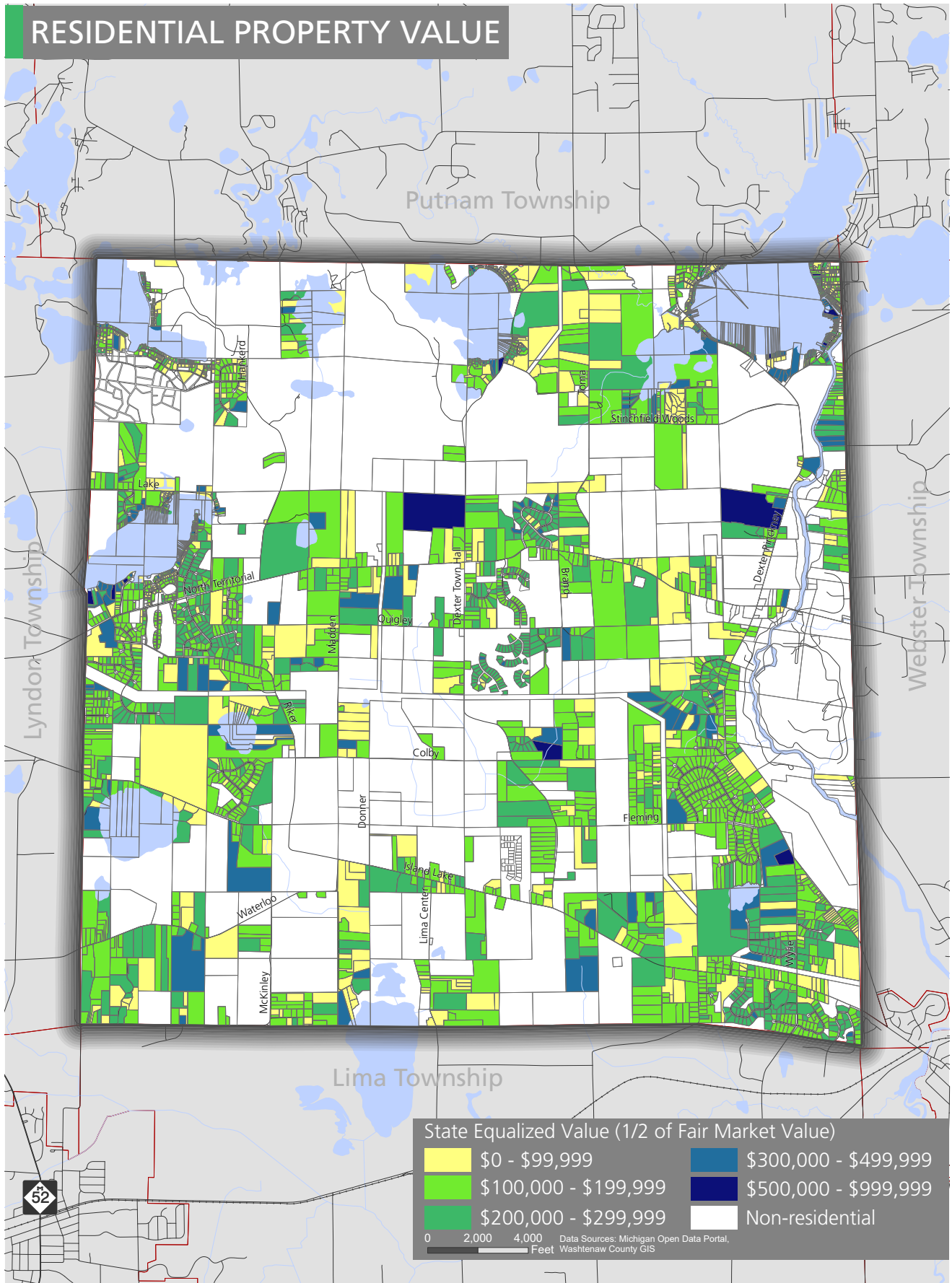
POPULATION TRENDS

Over one-third of households in Dexter Township (35%) have one or more children living in it, and the same percentage of households have one or more people aged 65 or older.⁹ One-quarter of households are comprised of a single householder; one in ten (11%) is occupied by a person aged 65 or older who lives alone.¹⁰ In 2010, there were slightly more households with children (37%), and substantially fewer households with seniors (22%).¹¹

The 2045 forecast from SEMCOG predicts a moderate rise in total households, increasing roughly 15% from 2,333 households in 2019 to 2,683 in 2045. It also suggests a continuing drop in households with children, from 35% of all households to just 27%. However, these changes are dwarfed by the biggest anticipated shift: a dramatic rise in households with persons aged 65 and over, from 29% of households in 2020 to 36% of all households in 2045.¹²

How can this be expected to affect housing preference? In general, households with children often seek homes on relatively larger lots, whereas households with persons over 65, and those with a single householder, may prefer to drastically limit or even omit the maintenance responsibilities that come with a yard. Though it does not address lot size, the 2021 “Home Buyers and Sellers Generational Trends Report,” produced by the National Association of Realtors, attempts to offer some insight.¹³ The report found that the group aged 55-75 comprised the largest share of sellers, and those aged 75 and up were the smallest share

Map 15: Residential Property Value



of buyers. This suggests a flurry of activity around retirement age, followed by a period of stability as these buyers remain in the same home for as long as they are physically able and often for the remainder of their lives. Among those aged 65 and up, the most frequent reason for moving was a desire to be closer to family and friends, followed by a desire for a smaller home. If a smaller unit is not available in the community, then they must move elsewhere.

Though single-family homes remained the dominant purchase type across age groups, the share falls steadily from 88% at age 31-40 to 73% by age 75-95; while shares of units in 2-4 unit buildings increases proportionately from 2% in the family-formation years to 11% by the highest age bracket. Only 12% of buyers over 50 purchased “senior-related” housing, but this group was much more likely to purchase a two-bedroom home than any other—and the only group to consider a one-bedroom home. These findings suggest that a deliberate effort to foster smaller, more affordable homes may help current residents stay in the Township longer and may offer residents from other communities who have ties to Dexter Township the opportunity to relocate into it. Housing diversity has been believed to detract from rural character, but it may actually help to keep the social fabric intact if seniors can age in place, close to their familial network.

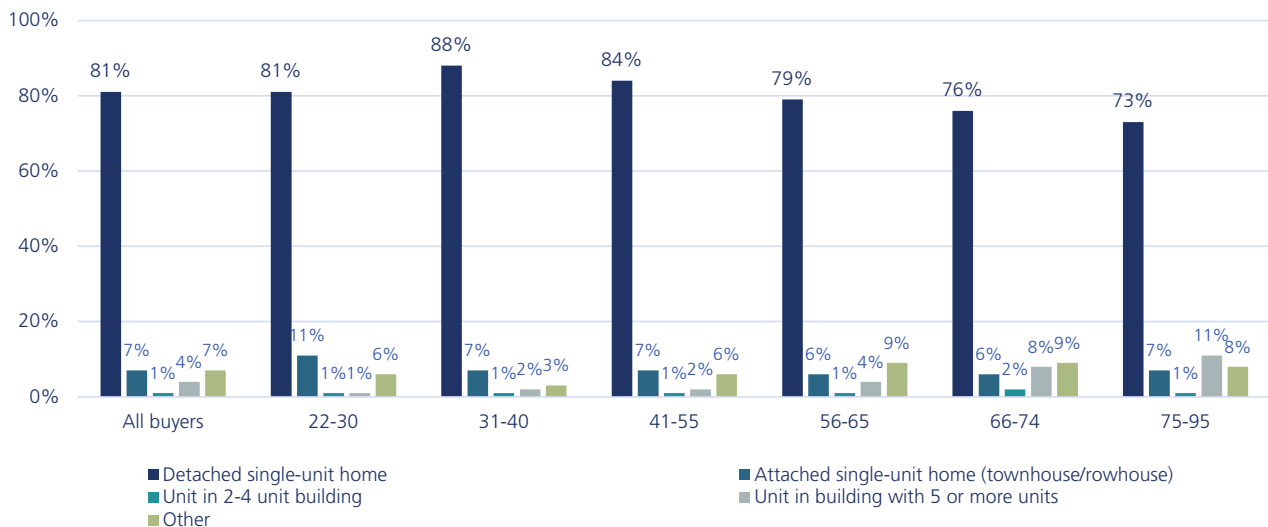
BUILDOUT ANALYSIS AND FUTURE LAND USE CONSIDERATIONS

The buildout analyses presented in the 2011 Master Plan states that under current zoning, enough structures could be built to approximately double the current population, going from about 6,700 residents as of the 2020 Census to between 12,058 to 14,202. SEMCOG expects that only a fraction of this growth will take place over the next 25-30 years, reaching a population of about 7,025 and adding 350 new households by 2045.

Where should these additional households go? The construction of 48 new homes on 92 acres (approximately 0.5 dwelling units per acre) at the corner of North Territorial and Dexter Townhall Roads had recently been approved at the time of this writing, which is likely to accommodate at least 100 new residents. At that density, accommodating the remaining 281 new households will require about 538.6 acres of greenfield development. For reference, the entire Hudson Mills Metropark is 1,549 acres.

The 2011 Master Plan designates two “Special Planning Areas” where medium-density residential development is recommended and suggests that such density not exceed 4 dwelling units per acre. Planning area #2 has been developed as a single-family subdivision. Site #1 is the land around the intersection of N Territorial Rd and Dexter-Pinckney Rd. Site #1 has been designated on the future land use map (Map 22) as an area for commercial development in the Township. This designation is consistent with the existing zoning of Site #1.

Figure 12: Type of Home Purchased



Source: National Association of Realtors, 2021 Home Buyer and Seller Generational Trends.



Example of a Rural Residential Home

Sources

- 1 United States Census Bureau, Decennial Census, 2020.
- 2 United States Census Bureau, DP04 Selected Housing Characteristics, American Community Survey 5-Year Estimates, 2019.
- 3 United States Census Bureau, DP04 Selected Housing Characteristics, American Community Survey 5-Year Estimates, 2019.
- 4 United States Census Bureau, DP03 Selected Economic Characteristics, American Community Survey 5-Year Estimates, 2019.
- 5 United States Census Bureau, DP04 Selected Housing Characteristics, American Community Survey 5-Year Estimates, 2019.
- 6 United States Census Bureau, DP02 Selected Social Characteristics in the United States, American Community Survey 5-Year Estimates, 2019.
- 7 United States Census Bureau, DP04 Selected Housing Characteristics, American Community Survey 5-Year Estimates, 2019.
- 8 United States Census Bureau, B25072 Age Of Householder by Gross Rent as a Percentage of Household Income in the Past 12 Months, American Community Survey 5-Year Estimates, 2019.
- 9 United States Census Bureau, DP02 Selected Social Characteristics in the United States, American Community Survey 5-Year Estimates, 2019.
- 10 United States Census Bureau, DP02 Selected Social Characteristics in the United States, American Community Survey 5-Year Estimates, 2019.
- 11 SEMCOG, 2045 Regional Forecast, <https://semcog.org/regional-forecast>.
- 12 SEMCOG, 2045 Regional Forecast, <https://semcog.org/regional-forecast>.
- 13 National Association of Realtors, 2021 Home Buyers and Sellers Generational Trends Report, 2021, <https://www.nar.realtor/sites/default/files/documents/2021-home-buyers-and-sellers-generational-trends-03-16-2021.pdf>

6

Transportation & Circulation

Transportation networks are the physical link that support mobility in a community. Roads, public transit, sidewalks, and other nonmotorized paths allow residents to move between home, work, places to socialize, and other everyday destinations. Transportation infrastructure also enables connections between communities facilitating exchange of products and services with other economic markets. Typically, housing, businesses, and amenities tend to concentrate along well-connected road networks, thereby establishing transportation infrastructure as a fundamental element of land use planning. This section inventories and analyzes traffic volumes, road connectivity, nonmotorized systems, and problematic intersections in the township. The findings from the analyses and community input subsequently guide the township on major transportation advancements and policy decisions.

ROAD NETWORK

Dexter Township has 110 miles of roads within its boundary. The major north–south access into the Township is through Dexter-Pinckney Road, which extends northwards to merge with the M-36 state highway and continues southeast to merge with the Dexter Ann Arbor Road with a terminus in Ann Arbor. The North Territorial Road serves as the township’s major east–west throughfare which extends westward to connect with the M-52 highway and eastward to the US-23 highway. Although Dexter Township does not contain any freeways, the proximity to freeway interchanges and state highways connects the Township regionally making it an accessible residential community with residents mostly commuting outside for employment. Other significant roads in Dexter Township are McGregor Road east of Dexter-Pinckney Road (to the Portage Lake area), Island Lake Road east of Dexter Townhall Road (to

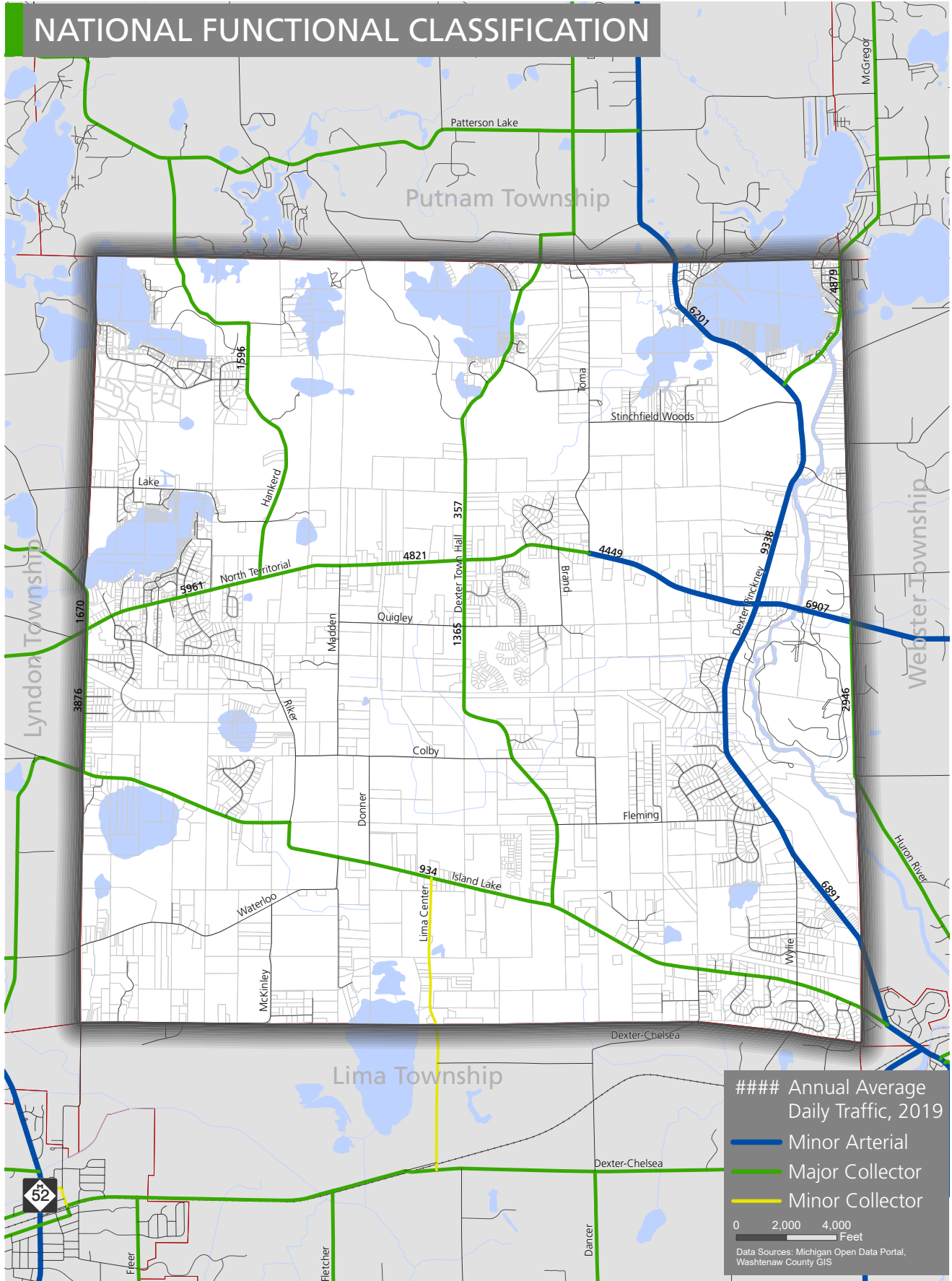
City of Dexter), and Stofer Road south of North Territorial Road (to M-52 and the City of Chelsea).

Road Classification and Traffic Volumes

The National Functional Classification (NFC) is a hierarchical system developed by the Federal Highway Administration and used by the Michigan Department of Transportation (MDOT) to determine federal funding allocation for different roads. Roads are categorized based on mobility, trip distance, speed limit, and traffic volume. The township’s roads fall into one of the following classifications: Minor Arterial, Major Collector, Minor Collector, and Local Roads. The map “National Functional Classification” represents Dexter Township’s Road network based on the NFC hierarchy. The Dexter-Pinckney Road and eastern part of the North Territorial Road are classified minor arterials while western North Territorial Road, Island Lake, Hankerd Road, Dexter Townhall Road, and McGregor Road are major collectors. North Lima Center Road is the only minor collector in the township and all other roads are local roads.

MDOT estimates the number of vehicles that travel daily by road throughout the year, using the Average Annual Daily Traffic (AADT) metric. The AADT estimates for Dexter Township are indicated in the map “National Functional Classification”. The AADT numbers closely follow the NFC hierarchy wherein roads with higher ranking receive larger traffic volumes. The minor arterial–Dexter-Pinckney Road is the busiest road with an average daily traffic count between 6,200–9,340 as it directly connects the City of Dexter, the Village of Pinckney, M-36, I-96, and the City of Howell. The major collector, North Territorial Road, records higher traffic (6,900 AADT) near its intersection with the Dexter-Pinckney Road, approximately 7.5 miles from US-23, making it a pivotal junction during peak traffic hours. Likewise, the western

Map 16: National Functional Classification



National Functional Classification

Minor Arterials: Provide service for trips of moderate length, serve smaller geographic areas, and offer connectivity to other principal arterials. Dexter township has 8 miles of minor arterials.

Major Collector: Gather and funnel traffic from local roads to the Arterial network; These provide access to property but tend to be longer in length, have lower connecting driveway densities, have higher speed limits, are spaced at greater intervals, and may have more travel lanes than minor collectors. Dexter township has 22 miles of major collectors.

Minor Collector: Provide access to property and funnel traffic from residential or rural areas to arterial roads. Dexter township has 1 mile of minor collectors.

Local Roads: Provide access to properties. Dexter township has 80 miles of local roads.

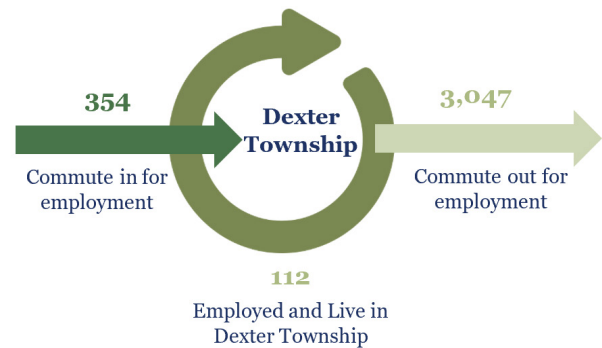
Source: Federal Highway Administration (U.S. Department of Transportation)

segment of North Territorial, which meets M-52, also sees higher traffic volumes (6000 AADT). Other major collectors Hankerd Road (1600 AADT), Dexter Townhall (350–1365 AADT), and Island Lake (935 AADT) receive moderate traffic volumes.

Commuter Traffic

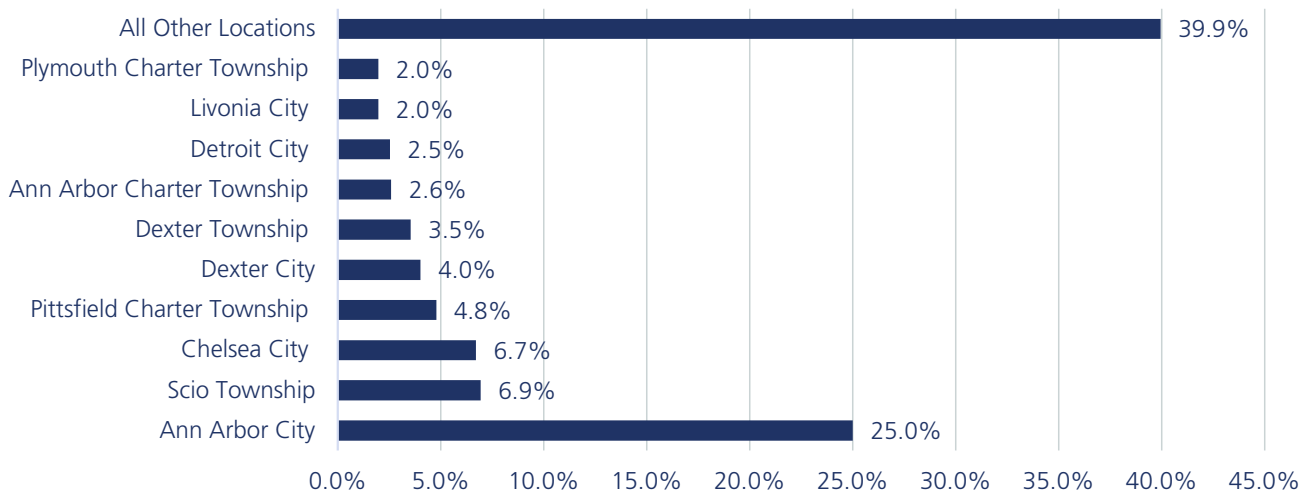
Dexter Township is primarily residential in character, with most of its residents commuting outside of the township to their place of employment. According to 2019 U.S. Census data, approximately 96.5% of residents in the labor force are employed outside of the township (Figure 13). About 25% of the residents commute out to Ann Arbor, making it the largest employment center followed by Scio

Figure 13: Commute Patterns, 2019



Source: United States Census Bureau, OnTheMap, 2019 dataset, <https://onthemap.ces.census.gov/>

Figure 14: Employment Locations for Dexter Township Residents, 2019



Source: U.S. Census, OnTheMap

Township (7%) and the City of Chelsea (7%). Dexter Township was the 6th place of employment likely attributed to local agriculture, the township businesses, and residents who work from their home (Figure 14).

Traffic Management

Traffic congestion and traffic management, normally hot topics in urban communities is an unusual concern for a rural township. Since the public road network is under the auspices of the Washtenaw County Road Commission (WCRC) Township officials have some, but limited, influence on their decision making and priorities. Exacerbating the traffic issue is the lack of east-west connections into the Township. Currently, Dexter-Pinckney Road and North Territorial Road are the primary gateways into the Township. Dexter-Pinckney Road requires traffic to go through downtown Dexter and then through the confined Norfolk Southern Railway bridge* underpass, and North Territorial has a connection to US-23 (refer to note on Page 59). Internal Township east-west access is via Island Lake Road which extends along the southeast portion of the Township while North Territorial Road provides east-west connectivity in the northern portion of the Township. However, the road condition and lack of continuous paving make Island Lake Road an unreliable east-west connection.

Traffic congestion is a local perception and usually defined by the wait time to get through an intersection. A review of the data suggests there are three points where peak hour traffic gets congested. The first point is traffic entering the Township through downtown Dexter. The signals at Main Street and Baker, and Main Street and Broad Street cause significant delays especially in the PM Peak. Second, although there is no signal, the narrow rail underpass further slows traffic. Lastly, the intersection at Dexter-Pinckney and Island Lake Road causes delays. All of these traffic points add to the low level of service (LOS—a metric used to evaluate the performance of roadways and transportation elements) entering the south portion of the Township. The 2019 Washtenaw Area Transportation Study (WATS) 2045 congestion forecast map still classifies the Island Lake Road segment between Dexter-Chelsea Road and Dexter-Pinckney as congested.¹

The map entitled, “Intersection LOS,” depicts intersections within the township that contribute

to low level of service. All seven congested intersections are located along the township’s major throughfares: Dexter-Pinckney Road, North Territorial Road, and Island Lake Road. The problem of congestion along these major roads can be attributed to the high percentage (97%) of residents commuting outside the township for work. Nonetheless, this condition is a problem that needs to be prioritized to improve the quality of commute for residents. Additionally, the WCRC data suggests that the selected road segments have an annual growth rate between 1% and 2%. However, based on survey responses, residents perceive the traffic as a larger issue and open-source comments refer to traffic congestion and the lack of road capacity to manage added residential growth.

Road Quality

The quality of roads impacts mobility and safety. The Transportation Asset Management Council (TAMC) conducts a visual survey called the Pavement Surface Evaluation and Rating (PASER) to evaluate the conditions of roads. This survey uses a scale of 1-10 to rate roads and then categorizes them as good, fair, or poor (shown in green, yellow, and red respectively). Using this scale, Figure 15 shows the change in the road conditions from 2004–2021, except for 2009 and 2019 when data was not available.

Over the years, the quality of roads in the township has fluctuated. However, the number of roads in poor condition was reduced by almost half between 2020 (62%) and 2021 (32%) indicating active efforts to restore the quality of roads in the township. The major north-south connector, Dexter-Pinckney Road, has “average” condition of roads almost throughout its entire length in the township. On the other hand, the quality of roads along the east-west connectors, North Territorial Road and Island Lake Road, varies from good to poor, especially at low level of service (LOS intersections) one, three, and five as depicted in Map 17, suggesting that the poor quality of roads at these junctions may be contributing to the traffic congestion. It can also be noted that many local roads in the township are in “poor” condition. Notably, portions of Huron River Dr were repaved in 2022 and are no longer in poor condition. Solutions to improve quality of roads within the township include:

- » Partnering with WCRC to improve the quality of roads along Dexter-Pinckney Road, North

Map 17: Intersection LOS

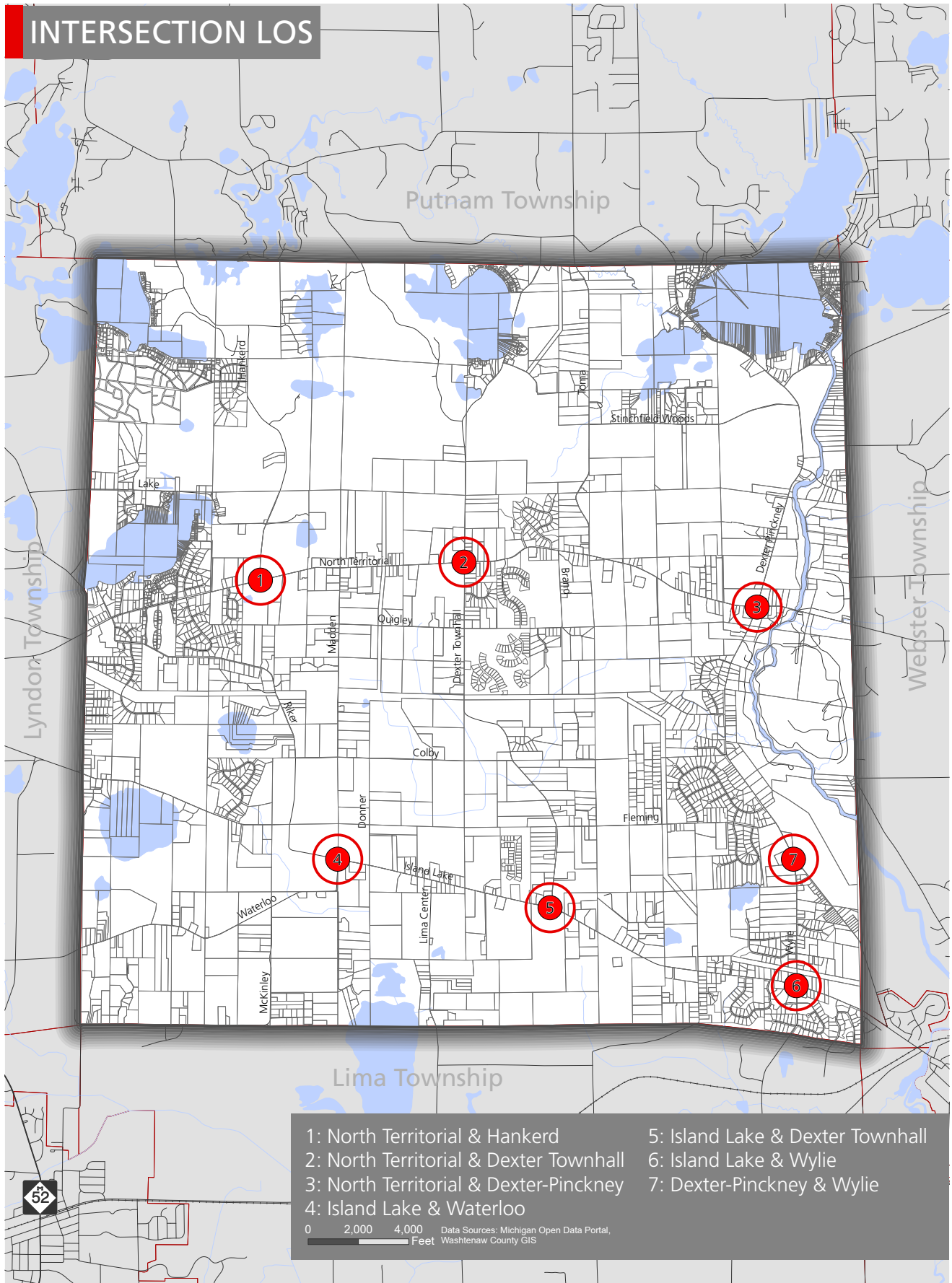
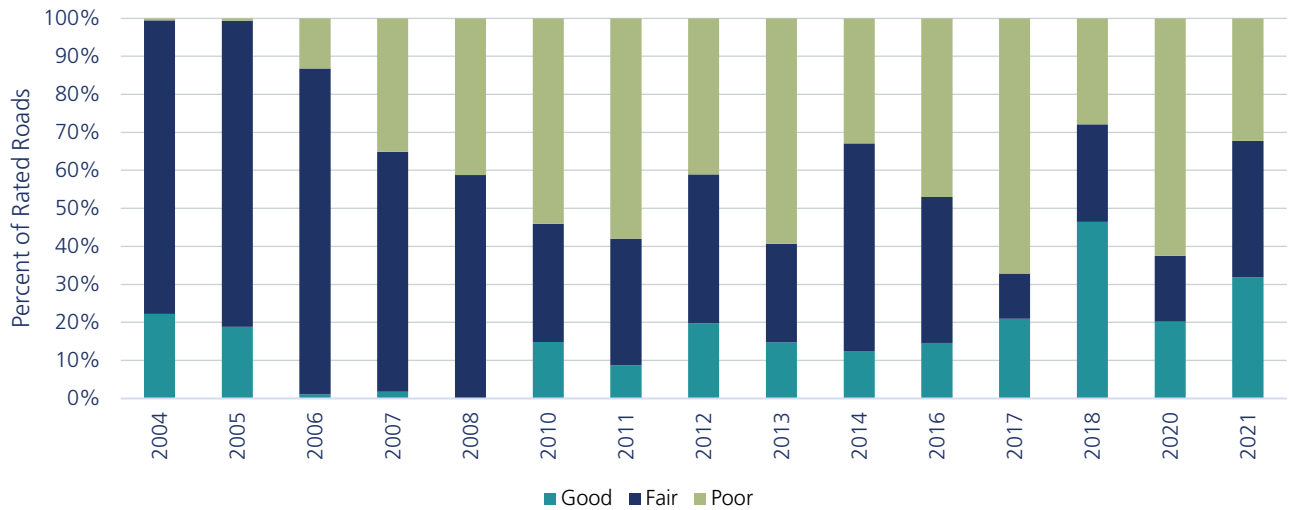


Figure 15: Conditions of Dexter Township’s Roads, 2004–2021



Source: Transportation Asset Management Council (TAMC)

Territorial Road, and Island Lake Road, especially around major intersections.

- » Ensure upkeep of local roads by maintaining a schedule for maintenance and including maintenance costs in the townships annual budget.
- » Requiring privately owned roads to be brought up to township standards by regulating road maintenance under the zoning ordinance.

Road Safety

Road safety is undoubtedly the most crucial element of transportation infrastructure which includes reducing the risk of accidents, injuries, and fatalities. While accidents unfortunately occur at any segment of a road, 31% of Michigan’s fatal crashes in 2020 occurred at intersections.² The map “Crashes, 2017–2022” uses official crash data from the Michigan Traffic Crash Facts (MTCF) website to identify unsafe intersections and road segments in Dexter Township.

Almost all crashes resulting in minor injury, major injury, and fatality occur along the minor arterial and major collector roads. Overlaying the crash map with the “Intersection LOS” map it is obvious that a majority of crashes occur at impaired LOS intersections. Of the total 302 crashes that occurred between 2017 and 2022, eight auto accidents resulted in suspected serious injury and four reported fatalities as recorded in Table 11. Two crashes involved pedestrians and two included bicyclists. Table 12 shows that nearly 50% of the

Table 11: Injury Caused by Crashes

Crash Type	Number of Crashes
Fatal Injury	4
No Injury	204
Possible Injury	41
Suspected Minor Injury	45
Suspected Serious Injury	8
Totals	302

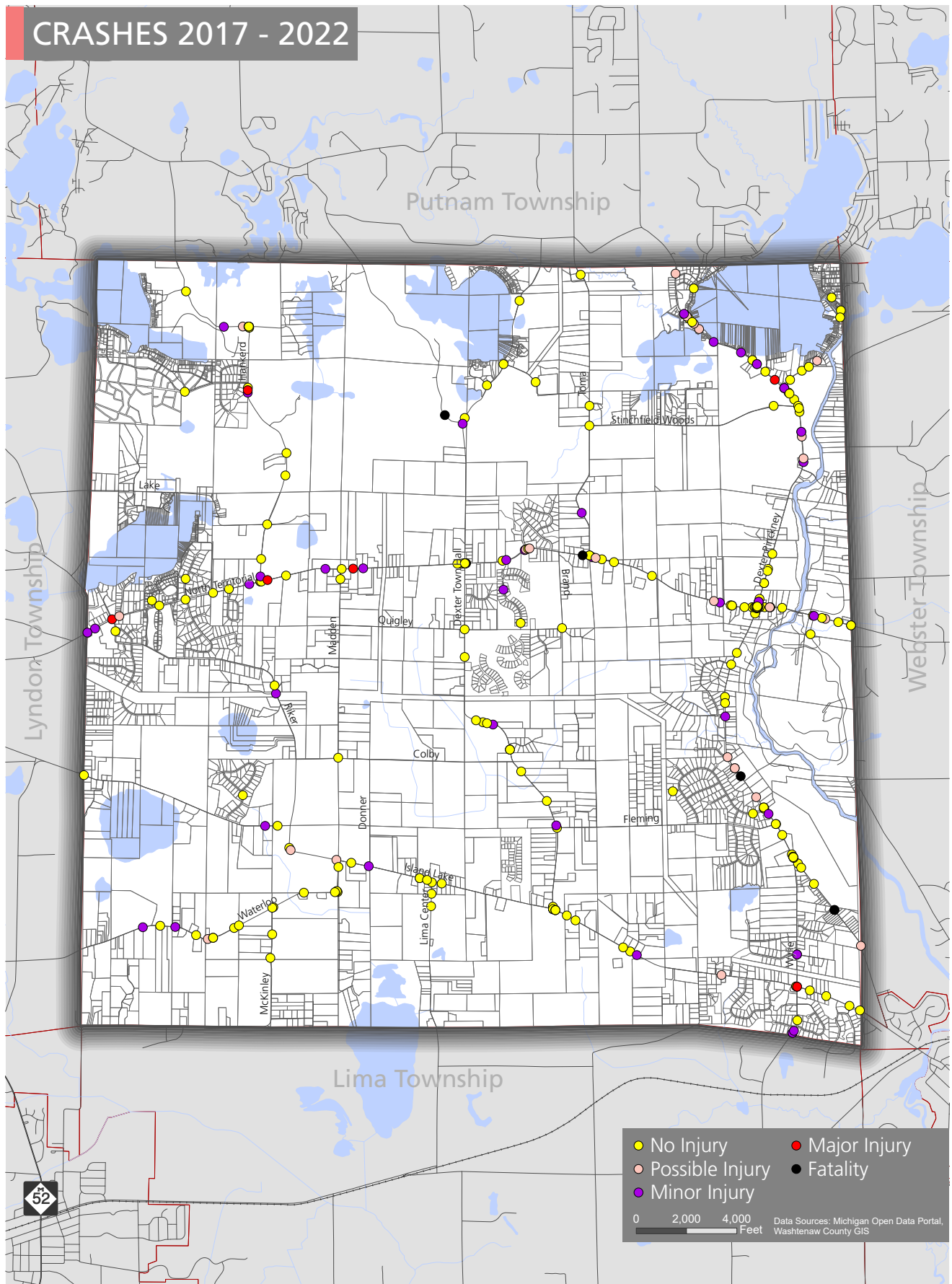
Source: Michigan Traffic Crash Facts (MTCF)

Table 12: Type of Crashes

Crash Type	Number of Crashes
Angle	35
Backing	11
Head-On	14
Head-On - Left Turn	6
Other	10
Rear-End	54
Rear-End - Left Turn	8
Rear-End - Right Turn	3
Sideswipe - Opposite Directions	8
Sideswipe - Same Direction	10
Single Motor Vehicle	142
Unknown	1
Totals	302

Source: Michigan Traffic Crash Facts (MTCF)

Map 18: Crashes 2017–2022



Complete Streets

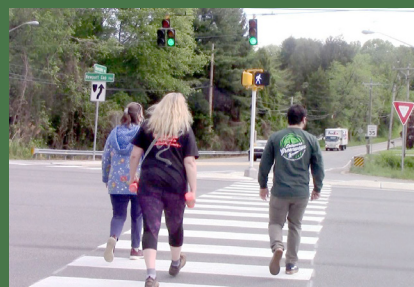
“Complete Streets” is an approach to advance equitable transportation and sustainability by designing streets for pedestrians, bicyclists, and public transit users of all ages and abilities, in addition to motorists. Complete Streets elements vary from small additions or enhancement to complete redevelopment projects. While a total complete streets approach is likely not applicable for Dexter Township, elements of Complete Streets can be implemented at high traffic intersections and pedestrian crossings. Complete street elements the township can focus on include sidewalks, bicycle lanes, safe crossings, street lighting, and street landscaping.



Sidewalks



Bicycle Routes



Safe Crossings



Street Landscaping



Street Lighting

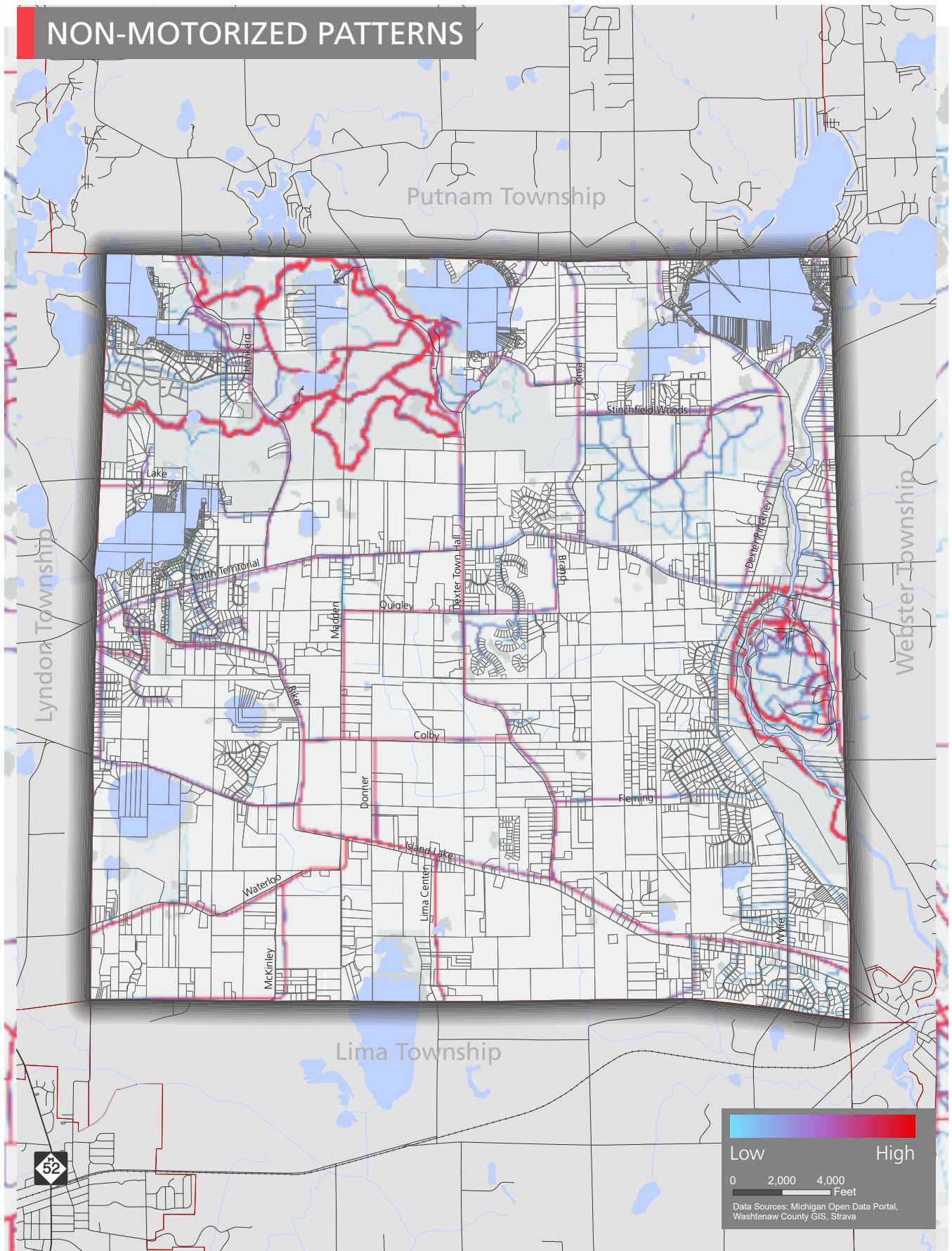
crashes involved a single motor vehicle and 18% crashes were rear-ended. Some potential solutions to enhance road safety in the township include:

- » Adding stop signs and digital radar speed signs at precarious intersections will alert automobiles to slow down.
- » Adding bicycle lanes on paved shoulders along primary roads to improve multi-modal safety.
- » Securing funding to add roundabouts at specific LOS intersections to slow down traffic and reduce the risk of accidents.
- » Upgrading major corridors and intersections with “Complete Streets” elements.

PUBLIC TRANSPORTATION

Access to quality public transportation at affordable rates, and regular frequency, enables mobility for residents of all age groups and income levels and has proven to be an effective solution to reduce a community’s carbon footprint. The Western-Washtenaw Area Value Express (WAVE) provides transit service to residents in and around the Townships of Dexter, Lima, Lyndon, Scio, Sylvan, Webster, the City of Chelsea, and the City of Dexter. WAVE provides low-cost public transportation for residents of these municipalities. It operates a fixed bus route schedule that runs between the City of Chelsea, City of Dexter, and the east end of Scio Township. From the bus stop at the east end of Scio Township, riders can transfer

Map 19: Non-motorized Patterns



onto an Ann Arbor Transportation Authority (AATA) bus, which runs throughout the City of Ann Arbor. WAVE also provides demand response door-to-door service for users that cannot access a bus stop along the WAVE route or their final destination. According to WAVE, most of the door-to-door riders were elderly and/or disabled.

NON-MOTORIZED TRANSPORTATION

Non-motorized transportation is an integral element of transportation systems which advance the ethos of shared roadways and multi-modal commute. Though over 90% of township residents primarily use automobile (car, truck, or van) to commute to work, integrating and increasing non-motorized trails is recognized as a priority by 35% of survey respondents.³

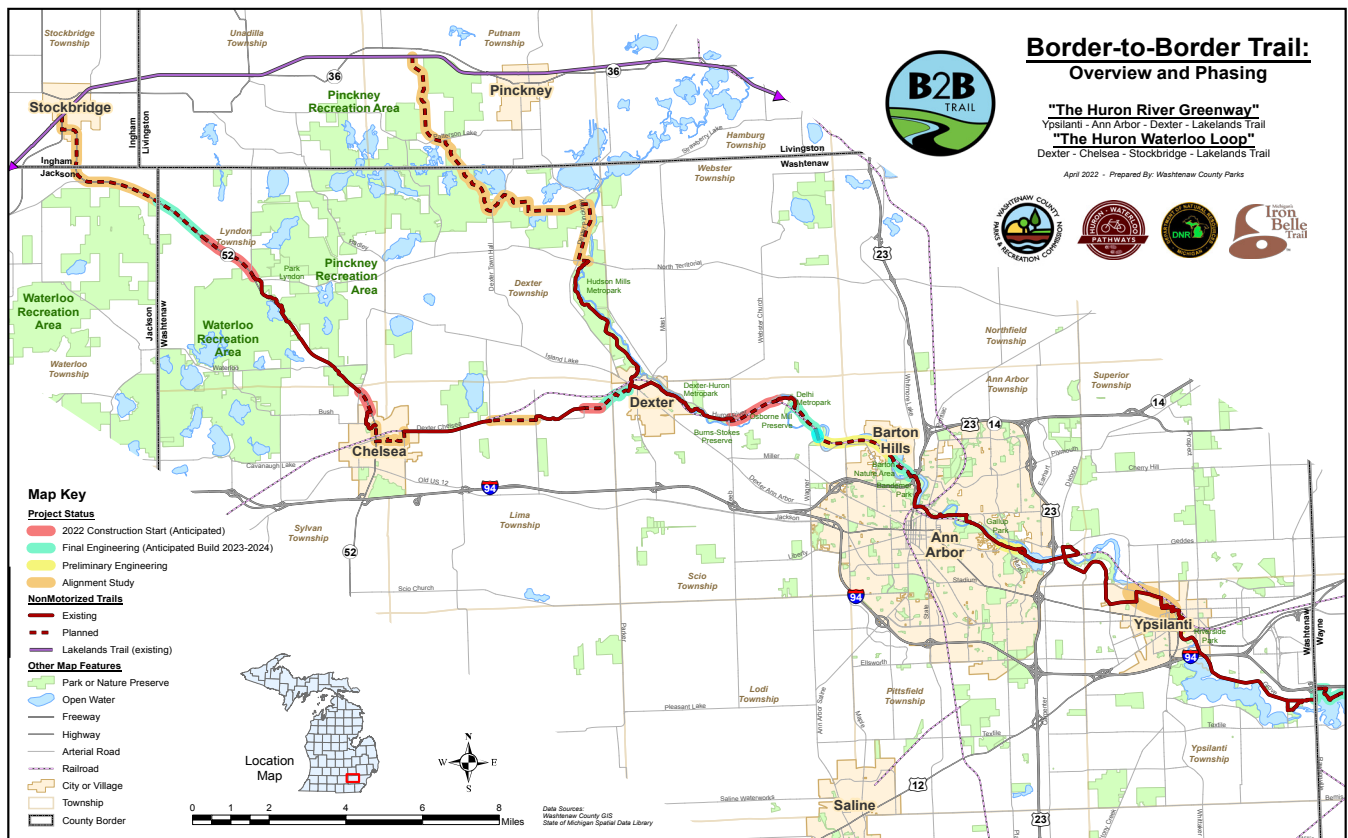
The “Non-motorized Patterns” map shows data from the online platform, Strava, which tracks app users’ exercise, predominantly in the forms of running, walking, and bicycling. The map shows elevated levels of nonmotorized activity along all

major roads but highest concentration of activity around the township’s parks and recreation destinations, specifically the Hudson Mills Metroparks in the east and the Pinckney Recreation Area in the northwest. This map highlights two main opportunities:

- » By knowing where the areas of high nonmotorized activity are, the township can prioritize its investment in nonmotorized infrastructure based on popular usage
- » By knowing where areas of low nonmotorized activity are, the township can investigate connections to nonmotorized infrastructure.

Non-motorized use has gained in popularity regionally and WATS has been an advocate for trail development. The Border-to-Border (B2B) Trail is a 35-mile, 10 foot wide, ADA accessible, paved pathway consisting of 8 trail corridors connecting cities, parks, and destinations throughout Washtenaw County.⁴ A portion of the B2B traverses through the Hudson Mills Metropark on the east side of Dexter-Pinckney Road. The WATS 2018 Non-Motorized Trail Plan calls for the continuation

Map 20: Existing and Planned Segments of Border-to-Border Trail through Dexter Township



Source: Border to Border Trail

of the (B2B) Trail through the County and the proposed Northwest Connector envisions a trail connecting Hudson Mills Metropark to the Mike Levine Lakelands Trail State Park.⁵ Given that 78% of survey respondents either strongly encouraged or encouraged the utilization of biking, hiking and walking trails, the township should internally advance nonmotorized infrastructure development

to connect to the existing and proposed B2B trail. The Township could prepare a non-motorized plan that incorporates regional trail plan segments and determines potential shared roadways, design considerations for paved shoulders, bike lane infrastructure along major corridors, and sidewalk access across neighborhoods.



Dexter Township Local Roads



Dexter Township Farmland

Special Note

- * The Southern Railway Bridge has a unique place in local history. In 1887, Mrs. Warner was killed by a passing train as she and her husband were going to check on their son who lived on the other side of the railroad tracks. After her death, the community petitioned the Michigan Central Railroad to build a bridge to prevent future tragedies. Michigan Central Railroad assigned the bridge design to one of the bright young engineers, Frederick B. Pelham. Frederick Pelham was the first African American to receive an engineering degree from the University of Michigan and graduated top of his class in 1887. Pelham's Southern Railway Bridge is a unique skew arch design and made of stone, a one of kind design and construction. Pelham tragically died at the age of 30, designing roughly 20 bridges over the course of his short career. Source: Marrin, D., "Is anything ever going to be done about the viaduct", Sun Times News, September, 3, 2022.

Sources

- 1 Washtenaw Area Transportation Study. 2045 Long Range Plan. 2019. <https://static1.squarespace.com/static/524e0929e4b093015db69c07/t/5c892d277817f7c82eae97bb/1552493920366/Draft+2045+LRP.pdf>
- 2 Michigan Traffic Crash Facts. Statewide 2020. 2020. <https://publications.michigantrafficcrashfacts.org/2020/MTCFVol1.pdf>
- 3 United States Census Bureau, DP03 Selected Economic Characteristics, American Community Survey 5-Year Estimates, 2019.
- 4 Border to Border Trail. <https://b2btrail.org/about-b2b/>
- 5 Washtenaw Area Transportation Study. Non-motorized Transportation Plan. 2018. <https://static1.squarespace.com/static/524e0929e4b093015db69c07/t/5c4731696d2a73efe1f2cbc6/1548169785513/WATS+2018+Non-Motorized+Transportation+Plan+web-compressed.pdf>

7

Economic Development

As a rural community there is limited economic activity in Dexter Township. The surrounding communities of Dexter, Chelsea, and Pinckney provide basic goods and services for residents and anything not available in the surrounding communities can likely be found in Ann Arbor. However, Dexter Township is not completely devoid of economic activity, with a few retail establishments and restaurants scattered throughout the township. Future commercial development in the township will likely be limited. The rural nature of the township makes it challenging for businesses to attract people from outside the township and the population size of Dexter Township doesn't support much commercial activity. Additionally, the proximity of established commercial centers in Dexter, Chelsea, and Pinckney provide more opportunity for businesses looking to open in the area. A vast majority (70%)

of respondents to the Dexter Township Master Plan survey feel that the current number of commercial businesses in the township is about right. However, if commercial development was to occur the Dexter Pinckney – North Territorial Rd intersection was the preferred location.

AGRICULTURAL ACTIVITY

Undoubtedly the largest economic activities in Dexter Township are the farms and agricultural production, over 20% of all land in Dexter Township is agricultural. When looking at a farm it is difficult to see the economic linkages, but the economic impact of agriculture goes beyond the farm. Agricultural production requires fertilizer, equipment, and processing, most of which occurs away from where crops are grown and livestock is raised.

Table 13: Economic Output of Agricultural Sectors in Washtenaw County

Agricultural Sector	Economic Output (millions)
Oilseed farming	\$632
Grain farming	\$1,262
Vegetable and melon farming	\$473
Fruit farming	\$360
Tree nut farming	\$0.6
Greenhouse, nursery, and floriculture production	\$755
Sugarcane and sugar beet farming	\$154
All other crop farming	\$75
Beef cattle ranching and farming	\$562
Dairy cattle and milk production	\$1,970
Poultry and egg production	\$392
Animal production, except cattle, poultry and eggs	\$429

Source: IMPLAN

In Washtenaw County, agricultural activities account for over \$7 billion in economic outputs. Economic outputs include the cost of supplies and materials, wages, salaries, and benefits, production profits, and taxes paid. While \$7 billion seems like a high degree of economic output, the entire county totals slightly over \$1 trillion of economic output, which means agricultural activity accounts for a very small fraction of economic activity in the county.¹

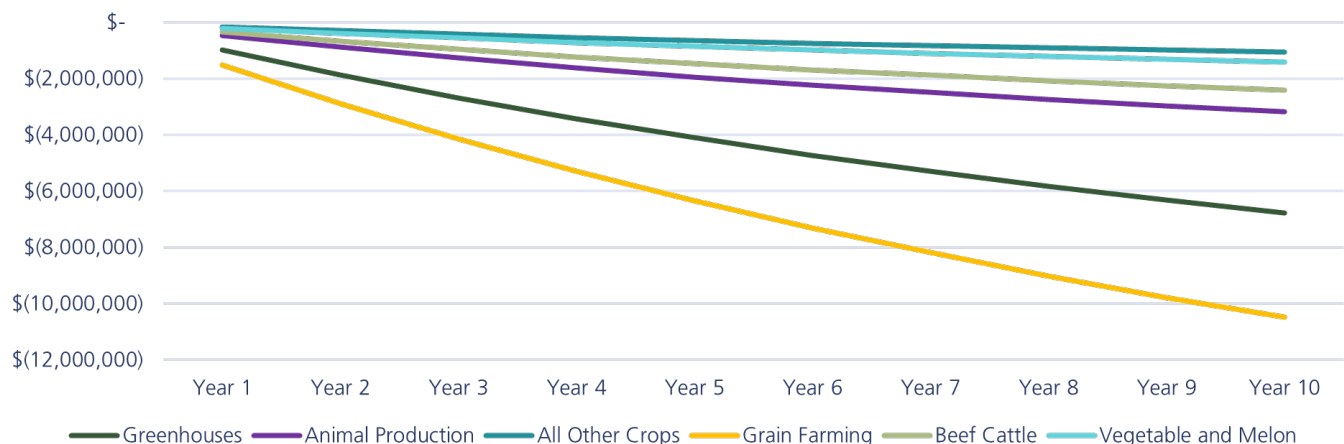
However, despite accounting for a small fraction of overall county economic output, most of which is likely driven by Ann Arbor, changes to agricultural activities in rural communities can have a profound economic impact. Farmland loss/conversion not only impacts the existing farm but all other supporting businesses like feed stores and small engine repair shops. The economic impact of land loss in six of the agricultural sectors listed in the table below was modeled to show the economic impact of farmland loss/conversion. The sectors were selected based on the greatest number of employees, which industries would have the most people directly impacted by farmland loss. Each sector has to be modeled individually because the agricultural sectors are interrelated to one another (example: grain farming supports dairy cattle and milk production). The figure titled “5% Annual Farmland Loss” shows the impact of farmland loss decreasing 5% every year for 10 years.

As shown in the graphic, loss of grain farmland will have the largest economic impact on Washtenaw County. At an annual rate of 5% grain farmland

loss, the total negative economic impact will be roughly \$10.5 million. Overall, the grain farming industry would decrease by roughly 35%. Other impacted industries include the agricultural support industry (ex: crop dusting, harvesting, and processing) and wholesale of non-durable goods (textiles, clothing, livestock sales) which are anticipated to decline by \$355K and \$407K, respectively. Additionally, the rate of farmland loss significantly influences the resulting loss of economic output, as shown in Figure 17, titled “Grain Farmland Loss.” At a rate of 10% annual decline (65% total loss at the end of the decade) economic loss would total over \$17 million. Even at an annual rate of 1% decline, economic losses would total roughly \$2.5 million.

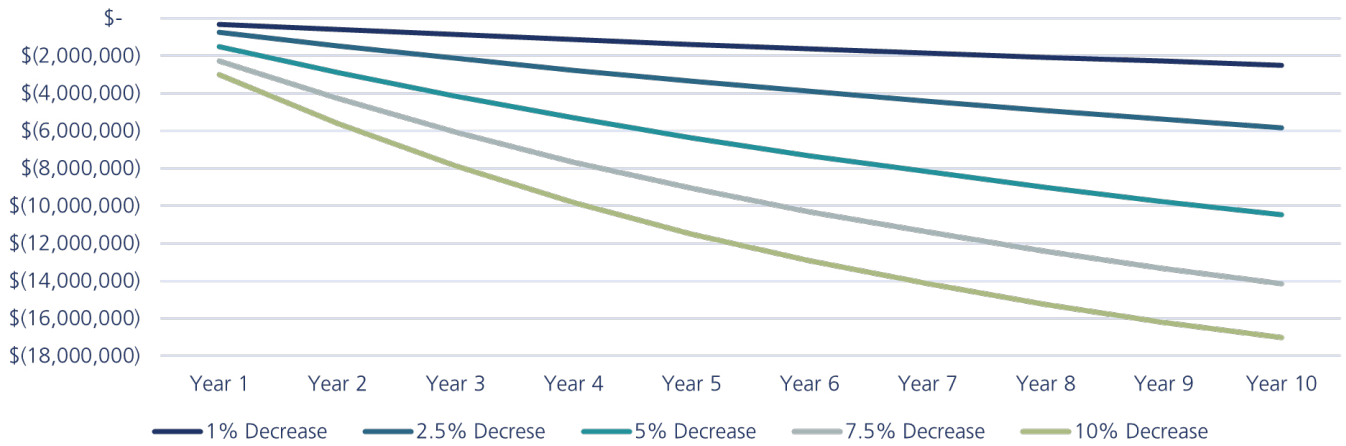
Often when farmland is converted the property owner is compensated for the loss of the personal economic gain from the land (from the sale of the property), but all of the other businesses that rely on the agricultural land don’t receive the same gain. Therefore, farmland preservation not only continues to economically support working farmers but all of the additional industries that rely on farmland. However, it is important to note that there are industries that benefit from farmland conversion, depending on what replaces the agricultural use, which are not reflected in the economic model. In Dexter Township, residents place a priority on farmland preservation where a majority of respondents to the Master Plan survey indicated that the preservation of agricultural land was a high priority.

Figure 16: 5% Annual Farmland Loss



Source: IMPLAN

Figure 17: Grain Farmland Loss



Source: IMPLAN



Rural Landscape along North Territorial Road

Sources

- 1 IMPLAN Economic Software, licensed by Beckett & Raeder, Inc.

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Implementation

“Our township is an engaged community that preserves the natural beauty and ecology of sustainable farms, waterways, open space, and residential areas. We enjoy clean and plentiful water resources, quality roads, communications, and infrastructure that better our daily lives.”

COMMUNITY OPINIONS, CONCERNS, AND PRIORITIES

In 2007, Dexter Township distributed a mail survey to property owners asking a variety of land use-related, growth management and community facility questions. As part of the 2022 Master Plan update an internet-based survey was prepared with notice of the survey distributed to property owners via the summer tax bill. Included in the 2022 survey were some of the same questions asked in the 2007 survey in order to assess any variation in community sentiments. 93% of survey respondents live in the Township. Out of the 410 2022 survey respondents, only 48, or 11%, took the 2007 survey. Although over 60% of the respondents have lived in the Township for 11 or more years it appears the vast majority of survey respondents were not involved in the 2007 survey. This means the response to the common survey questions were answered by two different population groups.

The table titled “Survey Comparison 2007 & 2022” presents a side-by-side comparison of the 2007 and 2022 survey results and provides some insight on community opinions, concerns and priorities. The table enumerates the survey results and notes the variation between the 2007 and 2022 survey responses. Fifteen (15) questions were evaluated with seven (7) questions having increasing percentages above the 2007 survey, five (5) questions remained unchanged, and three (3) questions noted a decrease in opinion.

OBSERVATIONS

Dexter Township is in a tug-of-war. While residents overwhelmingly noted they moved to Dexter

Township for its rural character, open space, inland lakes, natural resources, and location, they are equally concerned about more growth and the impact that development will have on their community. An undercurrent throughout the 2022 survey is the recognition that residential development has occurred at a reasonable pace, but the condition and capacity of the township road system has remained stagnant or declined. As a result, each newly constructed home will just add to the problem. Traffic congestion and traffic management, normally hot topics in urban communities is an unusual concern for a rural township. Since the public road network is under the auspices of the Washtenaw County Road Commission (WCRC) Township officials have some, but limited, influence on their decision making and priorities. Exacerbating the traffic issue is the lack of east-west connections into the Township.

Currently, Dexter-Pinckney Road and North Territorial Road are the primary gateways into the Township. Dexter-Pinckney Road requires traffic to go through downtown Dexter and then through the confined Norfolk Southern Railway bridge underpass, and North Territorial has a connection to US-23. Internal Township east-west access is via Island Lake Road which extends along the southern portion of the Township while North Territorial Road provides east-west connectivity in the northern portion of the Township. Dexter-Pinckney Road and Town Hall Road traverse north-south and link Island Lake Road with North Territorial.

Aside from the balancing act between regulating residential development and managing traffic network capacity, many residents want no, or extremely limited, commercial development.

Table 14: Survey Comparison 2007 & 2022

Community Barometer	2007	2022
Preservation of Our Agricultural Heritage		
Protection of Agricultural Activities (<i>Strongly Agree + Agree</i>)	86%	86%
Low Density Rural Atmosphere (<i>Strongly Agree + Agree</i>)	85%	82%
Residential Development in areas with Municipal Sewer (<i>Strongly Agree + Agree</i>)	32%	62%
Rate of Residential Growth (<i>About Right</i>)	25%	37%
Rate of Residential Growth (<i>Little Too Fast</i>)	33%	30%
Protection of Our Natural Resources (Surface Water, Groundwater, Wetlands, and Natural Areas)		
Preservation of Natural Resources (<i>as a Priority</i>)	74%	76%
Management of Growth (<i>as a Priority</i>)	66%	55%
Management of Our Traffic		
Quality of Township Road System (<i>as a Priority</i>)	45%	60%
Traffic Management (<i>as a Priority</i>)	33%	43%
Non-Motorized Trails (<i>as a Priority</i>)	22%	35%
Thoughtful Planning for Future Development		
Do not want Commercial Development	55%	42%
Commercial Development Allowed with many Land Use Regulations	23%	37%
Commercial Development with Appropriate Land Use Regulations	30%	34%
Commercial Development should be Discouraged	44%	23%
Commercial Businesses in the Township (<i>About Right</i>)	71%	68%

Indicators of Change (+/- 3% Difference between 2007 and 2022 Survey)

- Increase since 2007 Survey
- No Change since 2007 Survey
- Decrease since 2007 Survey

Source: 2007 and 2022 Dexter Township Community Surveys



Island Lake Road Norfolk Southern rail underpass

Residents prefer to seek personal services, shopping and entertainment outside of the township in Dexter, Chelsea, Pinckney, and Ann Arbor. Although admirable, this condition also adds to the traffic capacity and management issue.

Another issue is the community's desire to preserve its natural resources, protect its remaining agricultural activities, and encourage low density residential development. Often, these concurrent goals can be at odds with each other. Low density residential development can be consumptive resulting in the conversion of farmland to residential uses. The Existing Land Use map (Map 10) clearly illustrates that most of the remaining 4,368 acres of agricultural properties are in the south-central portion of the Township surrounded

by residential land uses. Currently, twelve (12) farms participate in the Michigan Farmland and Open Space Preservation Program (PA 116) accounting for 1,195 acres. However, five of these agreements totaling 200 acres expire in 2023. In addition, SEMCOG, the southeast Michigan metropolitan planning organization (MPO), is forecasting an additional 350 new households between 2019 and 2045.

In the survey comments, some residents have advanced the suggestion that the township consider higher density residential developments that rely on public sanitary sewers as a method to control and direct growth. Similarly, residents are also concerned that private sewer systems, if mismanaged, could be harmful to the Township's inland lakes and natural open spaces.

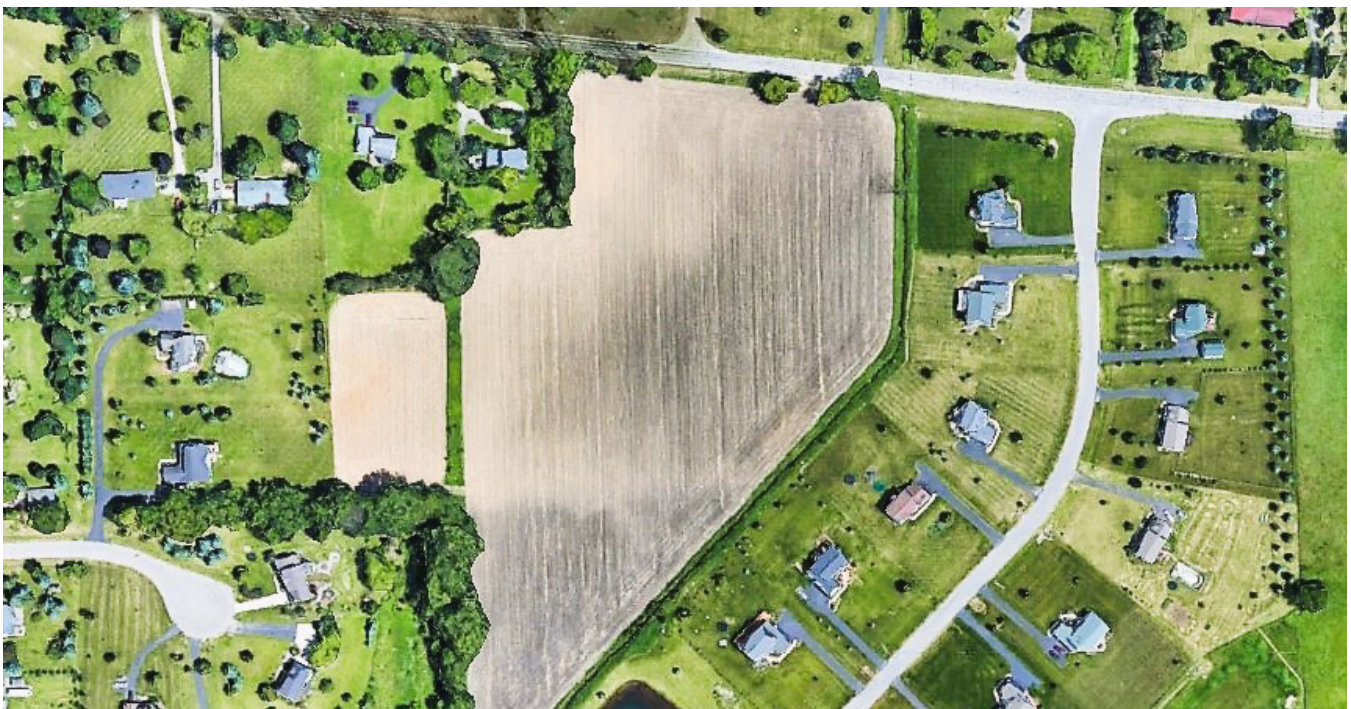
The Township tug-of-war extends to the desire to live in a rural setting outside of an urban city while engaging in urban-related employment activities. Although the highest percentage of survey respondents were retirees (26%), other respondents included those employed in education services and health care (23%), professional, scientific, and administrative (19%), information (7%), and manufacturing (6%). All these professions rely on the internet in some form or fashion to conduct operations and communicate.

An issue noted in the survey comments was the lack of high-speed internet (broadband) in the Township and the reliance on one provider. Internet service maps included in the final report of the Washtenaw County Broadband Equity Sub-Committee Report (2018) indicate the lack of 100-meg broadband in the south-central and northern portions of the Township. This deficiency in service is more apparent since post-COVID as remote working and hybrid office policies are more commonplace.

The overall assessment of the 2022 survey, review of the respondent comments, and review of the Board of Trustees 2021 Strategic Plan helped define five overarching themes for plan. These are:

Master Plan Themes

- » Preservation of our Agricultural Heritage
- » Protection of our Natural Resources
- » Management of Our Traffic
- » Thoughtful Planning for Future Development
- » Creating a Sustainable Community



Residential and agricultural lands along Island Lake Road

Cornerstone

Preservation of our Agricultural Heritage

Dexter Township has a variety of open spaces. These include 4,368 acres of agricultural land and 5,313 acres of MDNR, Metropark, and University of Michigan properties. Combined, these properties make up fifty (50%) percent of the total Township acreage. Together, these properties create the framework for a rural setting; a setting attractive to those seeking a lifestyle away from a city. It is unlikely that the 5,313 acres will be developed since it remains in public and university ownership and the properties are used for outdoor recreation and research. However, the 4,368 acres of agricultural land could be at risk.

Both the 2007 and 2022 community surveys indicated a strong preference by residents to protect agricultural activities within the Township. However, without ownership of the development rights little can be done to prevent the sale of agricultural property for residential development. Ordinance #43, the Dexter Township Zoning Ordinance (2020), Section 5.02 allows for single family residential on a minimum lot size of 5 acres or 1 acre with certain conditions. Since the last master plan in 2011, former agricultural properties have been converted into large lot single family parcels.

The map entitled, "Core Preservation Areas" (Map 10) defines three core zones in the Township. The Stable Zone is composed of State of Michigan, Huron-Clinton Metropark, and University of Michigan properties. These exist along the eastern and northern edges of the Township. The Moderately Developed Zone accommodates a significant portion of the Township's subdivisions which are developed along Dexter-Pinckney Road, Island Lake Road near the City of Dexter, and along North Territorial Road. The remaining zone, called the AG-Core is located in the south-central portion of the Township and comprises much of the remaining agricultural properties and farms. This is the zone that needs to be preserved in order for Dexter Township to maintain its agricultural heritage and rural character.

BUILDING BLOCKS

- » Continued use of Ordinance #43, Article 15 the Open Space Community Overlay District (OSC) to preserve open space and encourage the clustering of residential development.
- » Incorporate into Ordinance #43 the zoning tool referred to as the Transfer of Development Rights (TDR). Using the Core Preservation Areas utilize the AG-Core as the "sending" zone and the Moderately Developed Zone as the "receiving" zone. This program allows the private exchange of development rights using the minimum lot requirements between sending and receiving zones.
- » In coordination with the Washtenaw County Health Department develop a detailed map of soils that cannot support septic systems, have seasonal high-water tables, and high groundwater tables, and significantly limit the use of engineered on-site disposal systems on these properties.
- » Enact, with voter approval, a Purchase of Development Rights (PDR) program placing a priority on agriculturally productive land.
- » Encourage renewal of Farmland and Open Space Preservation Program (PA 116) certificates.
- » Develop a farm-link program matching retiring farmers with current farmers or new farmers to keep land in agricultural production (<https://landforgood.org/resources/farm-link-programs/>).
- » Consider adding agri-tourism uses in Ordinance #43; Agri-tourism uses help supplement and add additional income to the agricultural operation.

Cornerstone Management of Our Traffic

The comparison between the 2007 and 2022 surveys noted an increase in priorities focused on improving the quality of roads within the Township, traffic management, and non-motorized trails. Average annual daily traffic (AADT) counts available from the Washtenaw County Road Commission (WCRC) and the Southeast Michigan Council of Governments (SEMCOG) indicate a low annual increase in traffic counts on primary county roads within the Township. The map entitled, “National Functional Classification,” (Map 16) shows the available AADT counts and estimated percentage of growth.

The WCRC data suggests that the selected road segments have an annual growth rate between 1% and 2%. However, between 2007 and 2022 residents perceive the traffic as a larger issue and open-source comments refer to traffic congestion and the lack of road capacity to manage the added residential growth. Each new residential dwelling typically generates 5 daily trips and 1 per peak hour.

Traffic congestion is a local perception and usually defined by the wait time to get through an intersection. A review of the data suggests there are three points where peak hour traffic gets congested. The first point is traffic entering the Township through downtown Dexter. The signals at Main Street and Baker, and Main Street and Broad Street cause significant delays especially in the PM Peak. Second, although there is no signal, the narrow rail underpass further slows traffic. Lastly, the intersection at Dexter-Pinckney and Island Lake Road causes delays. All these traffic points add to the low level of service (LOS) experienced entering the south portion of the Township. The 2019 Washtenaw Area Transportation Study (WATS) 2045 congestion forecast map still classifies the Island Lake Road segment between Dexter-Chelsea Road and Dexter-Pinckney as congested.

Non-motorized use has gained in popularity and WATS has been a regional advocate for trail development. The WATS 2018 Non-Motorized Trail Plan calls for the continuation of the B2B Trail through the County. A portion of the B2B traverses through the Hudson Mills Metropark on the east side of Dexter-Pinckney Road. The proposed Northwest Connector envisions a trail connecting Hudson Mills Metropark to the Mike Levine Lakelands Trail State Park. Survey respondents (78%) either strongly encouraged or encouraged the utilization of biking, hiking and walking trails in the Township.

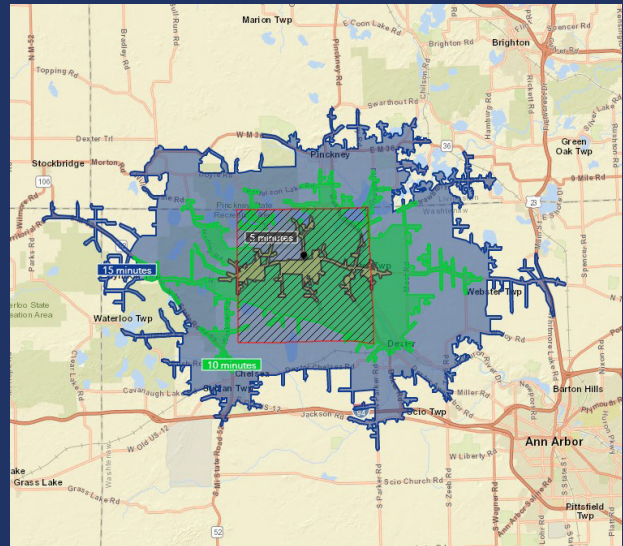
BUILDING BLOCKS

- » Develop a baseline model, such as Synchro, that determines the Level of Service (LOS) at intersections and primary arterials throughout the Township. This model would then be used to evaluate the added traffic impact associated with new development and provide the Township with the necessary data to manage development outcomes.
- » Require developers to submit a traffic impact assessment that models the Level of Service (LOS) at key intersections to ensure that the LOS doesn't drop below level D.
- » Collaborate with WCRC and Webster Township on a study for the Island Lake Road and Dexter-Pinckney Road intersection to determine directional traffic flow, AM/PM Peak Hour counts and Level of Service (LOS) with a focus on potential intersection redesign.
- » Prepare a Township non-motorized plan that incorporates regional trail plan segments and determines potential shared roadways and design considerations for paved shoulders.
- » Work with WCRC, the City of Dexter, and MDOT to identify and correct dangerous road design and traffic patterns.

Cornerstone

Thoughtful Planning for Future Development

Sentiments toward commercial development have changed since the 2007 Survey. Those selecting that they “do not want commercial development” or “commercial development should be discouraged” fell compared to the 2022 Survey. Conversely, those selecting “commercial should be allowed with land use regulations” and “appropriate land use regulations” increased. When asked to identify what type of commercial development would be appropriate, grocery store and restaurant were selected. In the open-ended responses respondents suggested a farmers’ market and outdoor gathering spaces. Overall, responses in favor of commercial development focus on convenience and not destination businesses.



Dexter Township is uniquely positioned to access three commercial districts: Dexter, Chelsea and Pinckney. A 5, 10, and 15-minute drive time analysis from the intersection of Dexter-Pinckney Road and North Territorial Road was created. The adjacent map denotes the coverages within the Township in relation to the respective business districts and verifies the degree of access to these centers is within a reasonable drive. As a result, the Township is in a position where planning for a commercial district may not be necessary. However, a very concentrated business cluster may be appropriate to satisfy errand-oriented trips, such as a convenience store, farmers’ market, and/or coffee shop-bakery. The median household in Dexter Township is forecasted to increase from approximately \$112,000 in 2022 to \$125,000 in 2027. Current expenditures for food purchased away from home is estimated at \$14 million and food purchased for the home is estimated at \$20 million and these expenditures are slated to increase. Obviously, the majority of these consumer expenditures flow (leak) outside of the Township to the surrounding business districts.

Other development-related initiatives that should be pursued involve the deployment of high-speed internet throughout the Township. Post-COVID work arrangements have shifted to remote, in-home offices, and hybrid work environments both of which require dependable, high-speed internet. Embodied in this shift from office-to-home work environment means a probable reduction in traffic which is a win-win for the Township. Further, survey respondents prefer large lot single family residences and open space subdivisions. Another way to preserve open space is to cluster smaller homes together within a larger tract of land.

BUILDING BLOCKS

- » Recognize the business districts in Dexter, Chelsea, Pinckney and Ann Arbor as Dexter Township’s downtown. However, consider a small commercial hub at the Dexter-Pinckney / North Territorial intersection focused on errand-orientated businesses.
- » Continue collaboration with the Washtenaw County Broadband Committee to provide and increase high speed internet services to the Township.
- » Consider creating a zoning district that encourages affordable, smaller residential lots within a walkable neighborhood that could be used in conjunction with the Open Space Community Overlay District.
- » Encourage, or require, through zoning to utilize Multi Lakes Sewer Authority’s sanitary sewer services and minimize unused capacity.

Cornerstone

Creating a Sustainable Community

Sustainability is the ability to exist and develop without depleting natural resources for the future. The United Nations defined sustainable development in the 1987 report entitled, “Our Common Future” (also known as the Brundtland Report) as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The concept of sustainability is composed of three pillars: economic, environmental and social. To some degree sustainability is linked to population growth. Although Michigan’s population doesn’t increase at the same rate as east and west seaboard communities, recent trends have indicated Michigan will see modest growth and this growth will likely see a migration to urban areas in the State. The greater Ann Arbor urban area will continue to grow due to its excellence in the education, healthcare and technology sectors, and this growth will place added development pressures on surrounding communities like Dexter Township. At the local level sustainability is the balance between economic development and environmental outcomes and their impact on society.

Local sustainability strategies focus on those measures that can be advanced and implemented by the local unit of government. Often these sustainable community strategies are rarely legislative in nature but take the form of incremental projects and initiatives.

BUILDING BLOCKS

- » Provide opportunities for affordable housing through the use of Accessory Dwelling Units (ADU’s), smaller lot sizes, and encouraging cluster housing development.
- » Participate or encourage residents to use regional public transit options.
- » Provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.
- » Protect productive and prime agricultural lands to ensure future food production.
- » Collaborate with adjacent communities to address regional planning and transportation issues as a way to direct growth and preserve sensitive natural resources and farmland.
- » Encourage, or require through zoning, the installation of EV charging stations in commercial developments.
- » Incorporate EV charging stations in Township facilities, local and regional parks.
- » Promote energy efficiency in homes by permitting residential rooftop solar energy by right, providing materials and resources on weatherization, and encouraging the use of sustainable building materials.
- » Monitor and advocate for the replacement of tree canopy along County roads and within private developments that require local approval.
- » Continuation of Township-wide recycling and evaluate the concept of leaf composting in lieu of burning.
- » Promote the expansion of non-motorized shared pathways.
- » Reduce storm water runoff through green storm water infrastructure enhancements such as porous pavement, rain barrels, and bioswales.
- » Assess the Township’s vulnerability to risk including but not limited to toxic substances, transportation failings, and climate change.
- » Consider an overlay zone around Township lakes to control chemical usage.



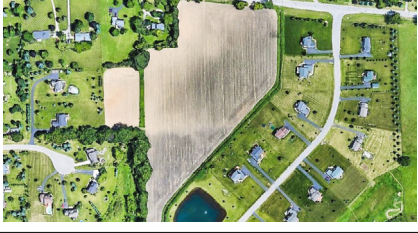


FUTURE LAND USE

The Future Land Use Map (FLUM) for Dexter Township has its foundation in the land suitability analysis. As outlined in the Land Use chapter, the land suitability analysis was developed to determine what properties were suitable for agricultural preservation and those properties suitable for non-agricultural purposes in the future. The result of that analysis concluded that a defined agricultural core existed in the south-central portion of the township and properties outside this core area would likely be developed for lower density, rural residential development. As a result, the FLUM has

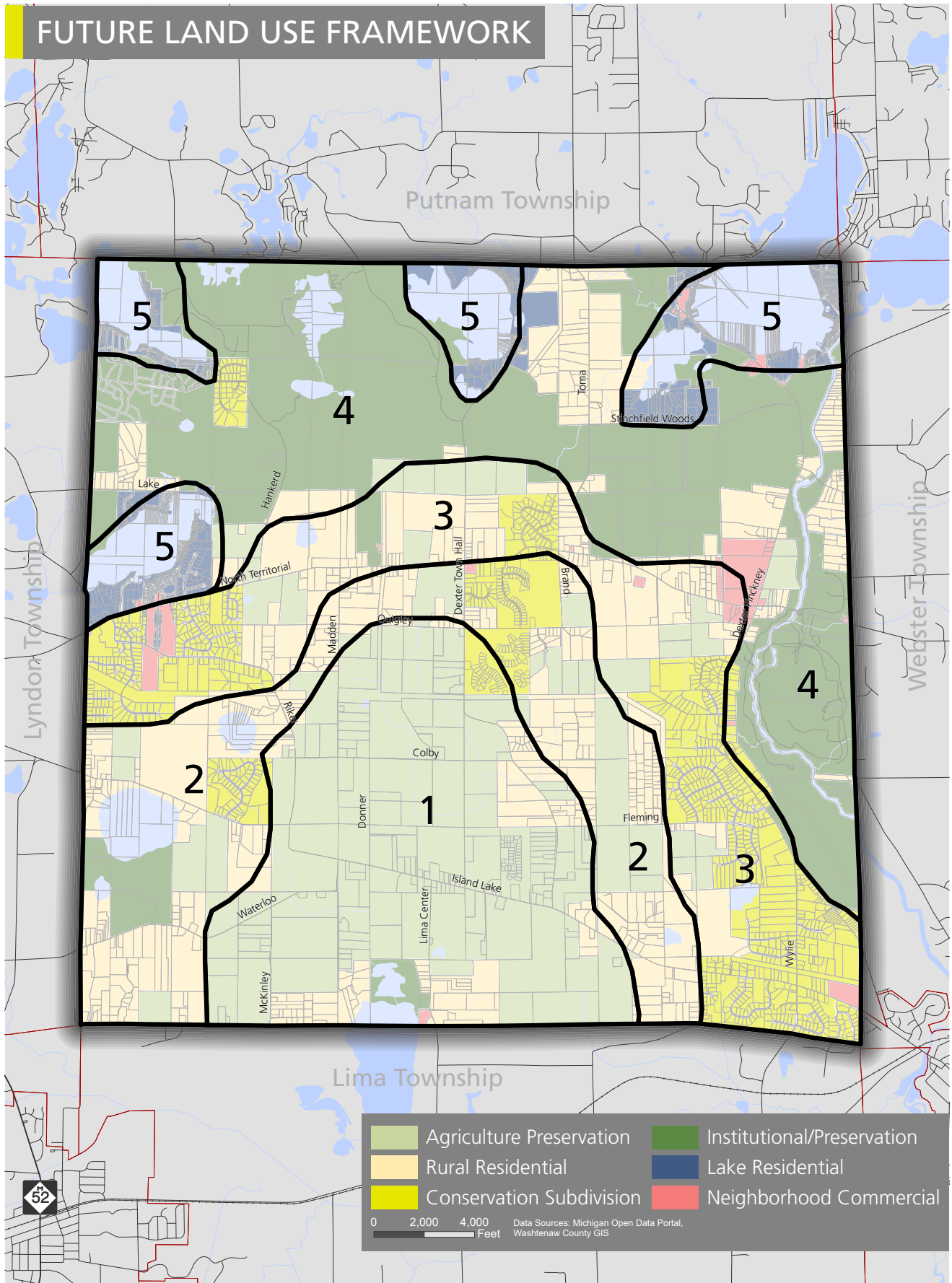
five distinct land use patterns as noted in Table 15 titled “Future Land Use Framework”.

Collectively these five framework typologies paint a picture of a low-density, rural community with access to significant open spaces and outdoor recreation amenities. Except for several small local businesses there are no large commercial districts within the Township, which is consistent with the Cornerstones, where the Township recognizes and supports the adjacent downtowns of Dexter, Chelsea, and Pinckney rather than encouraging commercial development within the Township. The map on the following page shows generally where these land use patterns are located in the township (the numbered black outlines on the map).

Table 15: Future Land Use Framework

Type		Land Use Pattern	Description
1		Working Agricultural	Located in the south-central portion of the Township.
2		Low Density Rural Living	Located in the southern portion of the Township emanating from Agricultural Preservation area.
3		Low Density Suburban Living	Includes many of the platted and site condominium subdivisions that are adjacent to HCMA, UM, and State properties.
4		Natural and Sensitive Areas	Properties along the eastern edge and north portion of the Township.
5		Waterfront	Residential and commercial adjacent to the Township's inland lakes.

Map 21: Future Land Use Framework



Map 22: Future Land Use Map

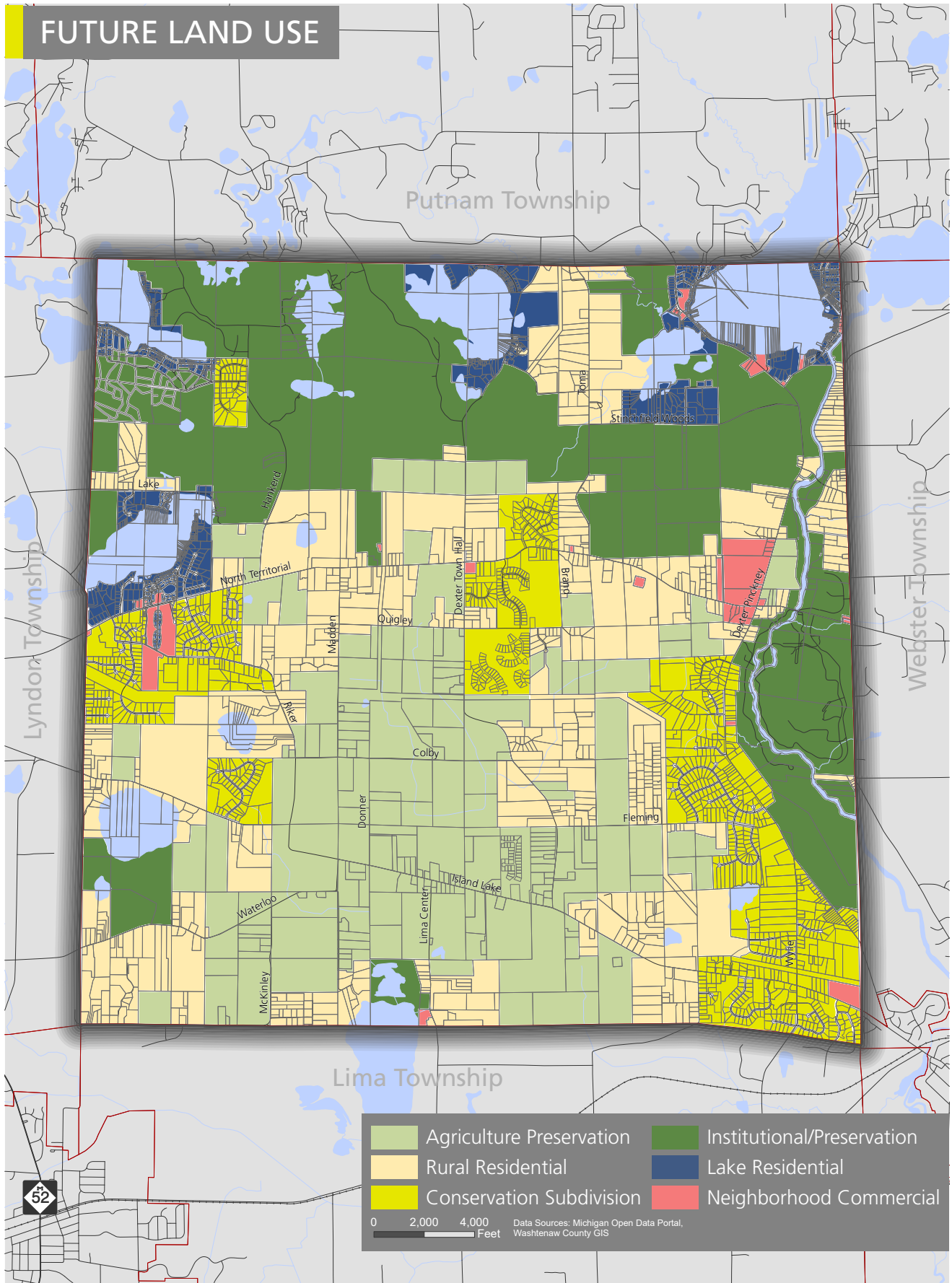


Table 16: Future Land Use & Existing Zoning

Proposed FLUM	Intent	Proposed Uses	Zoning District(s)	Acreage
Agricultural Preservation	Preserve working agricultural properties and high value agricultural land.	Farms, orchards, vineyards, and large lot residential single family.	AG	5,069
Rural Residential	Provide for large lot rural style living and maintain the agricultural and rural nature of the Township core.	Farms, orchards, vineyards, and large lot residential single family.	RC, RR, PR	5,311
Conservation Subdivision	Provide for subdivision style development in a way that preserves the natural and rural character of the land by encouraging the clustering of smaller lots within the subdivision and the preservation of land around the clusters.	Low to medium density single family residential in planned developments.	RR	2,687
Lake Residential	Permit small lot and residential cottage style development around the lakes using regulations intended to accommodate small lots and protect water quality.	Waterfront single family residential.	LR	1,662
Neighborhood Commercial	Provide for limited commercial and light industrial uses within the Township.	Small, single site retail and service businesses that serve local residents.	C	292
Institutional / Preservation	Maintain public and quasi-public properties, parks, and conservation lands.	Large open spaces with some limited passive recreation amenities.	CU, PA, PR	5,824

ZONING PLAN

Based on the relationship of Future Land Use Map (FLUM) to the Township zoning ordinance (#43) there are no new or modified zoning districts needed to accomplish the implementation of the future land use map. There are, however, several recommended revisions that should be considered to implement the Cornerstones and these include:

- 1. Transfer of Development Rights.** Incorporate into Article 14; Planned Unit Development, a provision that encourages the Transfer of Development Rights (TDR's) from the core agricultural zone to the moderately developed zone based on the land suitability analysis. A TDR program seeks to preserve landowners' asset value by moving the right to build a house(s) from a location where agricultural preservation is encouraged to a location where development is encouraged. The TDR process is usually associated with a planned unit development and the development rights are transferred from the sending zone (agricultural core) to the receiving zone (moderately developed zone). The approved planned unit development is eventually recorded at the County Register of Deeds which memorializes the transfer of development rights from the sending parcel to prevent future development on the same parcel.
- 2. Agri-Tourism.** Allow within the Agricultural District (AG) agri-tourism opportunities, Section 5.03. These activities, conducted on the agricultural property, help provide an additional revenue stream to the property owner.
- 3. Wetlands.** Amend Section 23.06 C. to increase the setback from a wetland from 10 feet to 25 feet to provide extra protection from fertilizer and pesticide infiltration.
- 4. Renewable Energy.** Amend Article 16; General Provisions to include a section on personal scale renewable energy, such as, solar, residential wind, and geothermal facilities.
- 5. Electric Vehicles (EV's).** Amend Article 16; General Provisions to include use of electrical vehicle (EV) charging stations in public facilities, parks, and commercial businesses.
- 6. Accessory Dwelling Units.** Accessory dwelling units (ADU's) provide added housing opportunities in housing markets with high demand and low supply, like the greater Ann Arbor market. However, accessory dwelling units are being converted into short term rentals (STR's) which negates their value as an additional long-term housing unit. Consider amending the Accessory Dwelling Standards, Section 17.02(D), in the zoning ordinance to prohibit the use of ADU's for STR's.



Agri-Tourism



Accessory Dwelling Units

Table 17: Action Plan

Preservation of Our Agricultural Heritage		Partners
Encourage agricultural property owners to continue in the Farmland & Open Space Preservation program (PA 116)	2023-2025	Michigan Office of Rural Development and Agriculture
Amend the Zoning Ordinance to allow Agri-Tourism activities as a Special Land Use under Article 28.	2024	Township Board
Amend Article 14 to include the elective use of the Transfer of Development Rights option to further the preservation of core agricultural properties.	2024	Huron River Watershed Council
Protection of Our Natural Resources		Partners
Amend Section 23.06 C. to increase the wetland setback from 10 feet to 25 feet.	2024	Township Board, Huron River Watershed Council
Coordinate with Michigan EGLE to evaluate where groundwater recharge areas are located within the Township and then construct an ordinance that prevents contamination of this resource	2027	EGLE
Management of Our Traffic		Partners
Work with partners to evaluate the Island Lake Road and Dexter-Pinckney Road intersection focusing on either an intersection realignment or installation of a roundabout to mitigate traffic backups.	2024	Washtenaw County Road Commission, Webster Township and the City of Dexter
Creating a Sustainable Community		Partners
Amend the Accessory Dwelling Unit (ADU) provisions to prevent their use as Short Term Rentals (STR's)	2024	Township Board
Promote the use of EV Charging stations. Consider an amendment to the Zoning Ordinance that requires EV charging stations at certain public and private facilities.	2025	DTE
Amendment to the Article 16: General Provisions to include renewable energy facilities as a use permitted by right on residential properties.	2026	Township Board
Work with Washtenaw County on the preparation of a Township hazard mitigation plan.	2028	Washtenaw County
Thoughtful Planning for Future Development		Partners
Continue collaboration with the Washtenaw County Broadband Committee to provide and increase high speed internet services to the Township.	2023–2024	Washtenaw County
Consider creating a zoning district that encourages affordable, smaller residential lots within a walkable neighborhood that could be used in conjunction with the Open Space Community Overlay District.	2023–2025	Township Board

Appendix

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APPENDIX A: COMMUNITY SURVEY RESULTS

SURVEY SUMMARY

The Dexter Township Master Plan Survey was designed to garner the community's input on overall goals and priorities to guide the master plan and gauge their current and future preferences regarding residential development, commercial development, and infrastructure and services. The survey was hosted on an online platform—SurveyMonkey—and promoted with a poster in the Township Hall lobby, stuffer in the summer tax statements, on Facebook, an ad in the Sun Times, and via email sponsored by the Portage Lake Association to its members. Paper copies of the survey were available at the Township Hall for those who could not access the online platform. A total of 457 people participated in the survey between July and September 2022 with a completion rate of 96%.

OVERALL GOALS AND PRIORITIES

The responses in the section help comprehend the community's perception on what aspects of the township are working and what needs improvement, which in turn guide the action plan goals and priorities in the implementation chapter of this Plan.

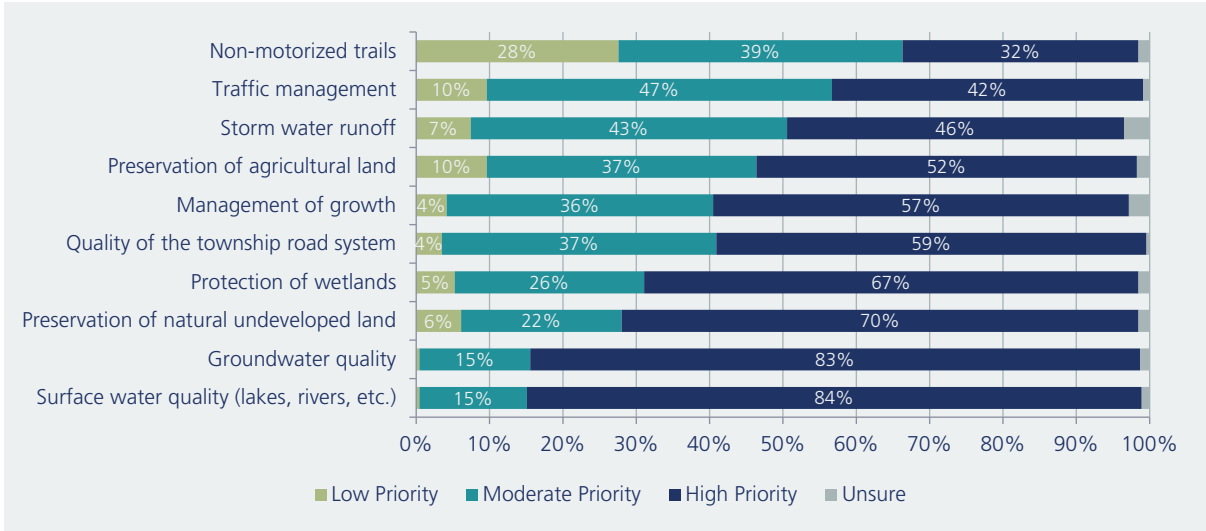
Q1. Did you participate in the last Dexter Township Master Plan survey (2007)?

Majority of the respondents (87%) had not participated in the 2007 Master Plan survey. Though a minority (13%), the inputs of respondents who participated in the previous survey are valuable as they have witnessed the goals and priorities of the previous plan put to action and can weigh in on specific improvements in the current plan to better align the community's needs and township's actions.

Q2. How should the following concerns be prioritized in relation to the Dexter Township Master Plan?

Preservation of the township's natural features and open spaces stands out as a priority for most of the respondents. About 83% rate water quality, both surface water and ground water, as a high priority; and over 68% of respondents rate preservation of natural undeveloped land and wetlands as a high priority as well. Quality of roads and traffic management also appear to require urgent attentions from the survey takers. Over one half of the respondents ascertain that growth in the township must be managed; this ties in with the above observations because population growth directly impacts development which in turn reduces both quality and quantity of open spaces and burdens existing infrastructure and transportation systems.

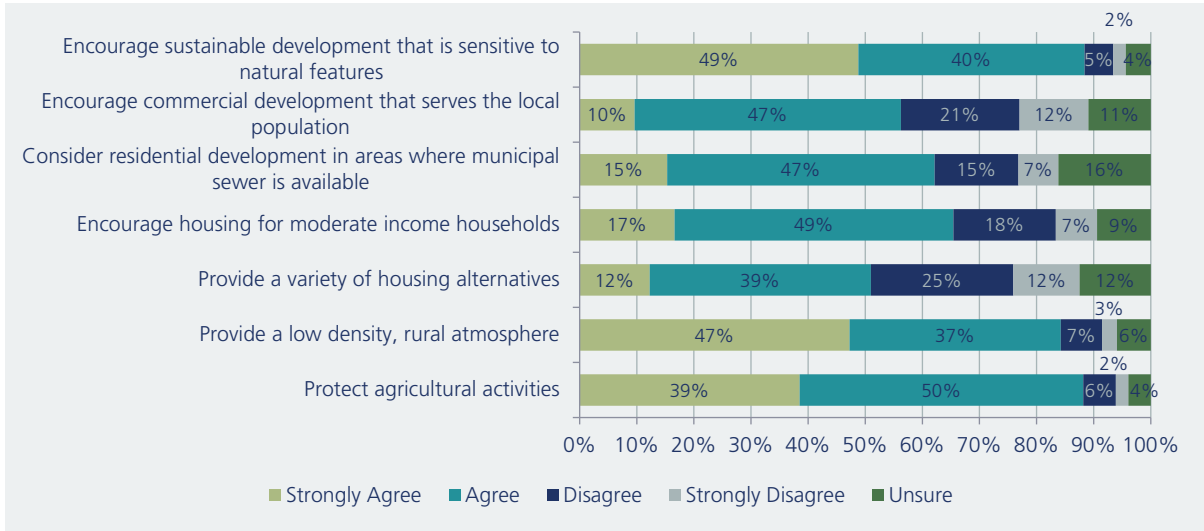
Community Priorities



Q3. The Dexter Township Master Plan will include goal statements regarding the future growth and development of the township. Please indicate your level of agreement with the following statements.

Nearly 50% of the respondents strongly agree that advancing sustainable development that is in harmony with natural features and respectful to the rural low-density characteristic is an important future goal for the township. The opinions of respondents on housing goals are split; one half either strongly agree or agree that the township should provide a variety of housing alternatives while the other half either disagree or strongly disagree with this statement. Additionally, 65% of respondents express strong desire to encourage housing for moderate income households. The township should therefore consider integrating missing middle housing typologies, which seamlessly weave density into traditional low-density neighborhoods, in selected areas of the township to satisfy varied housing needs. Missing middle housing typologies also offer more affordable housing opportunities for moderate income households as discussed in the housing chapter of this Plan.

Future Growth and Development Goals from the Community



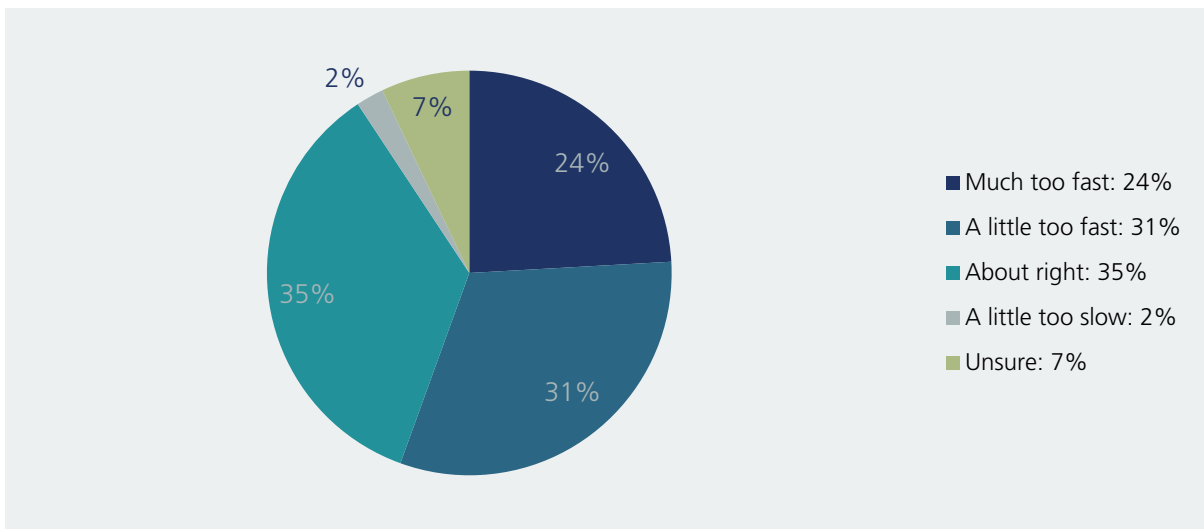
RESIDENTIAL DEVELOPMENT

The responses in this section of the questionnaire help understand the public's perception of residential development in Dexter Township.

Q4. Looking back on the last 10 years, how do you feel about residential growth in Dexter Township?

Majority of survey respondents (55%) feel that residential development in the township over the last 10 years has been too fast and 35% feel the pace is just about right. Given that growth management and preserving the rural characteristic is important to the residents it will be crucial to pace out residential development in the coming years.

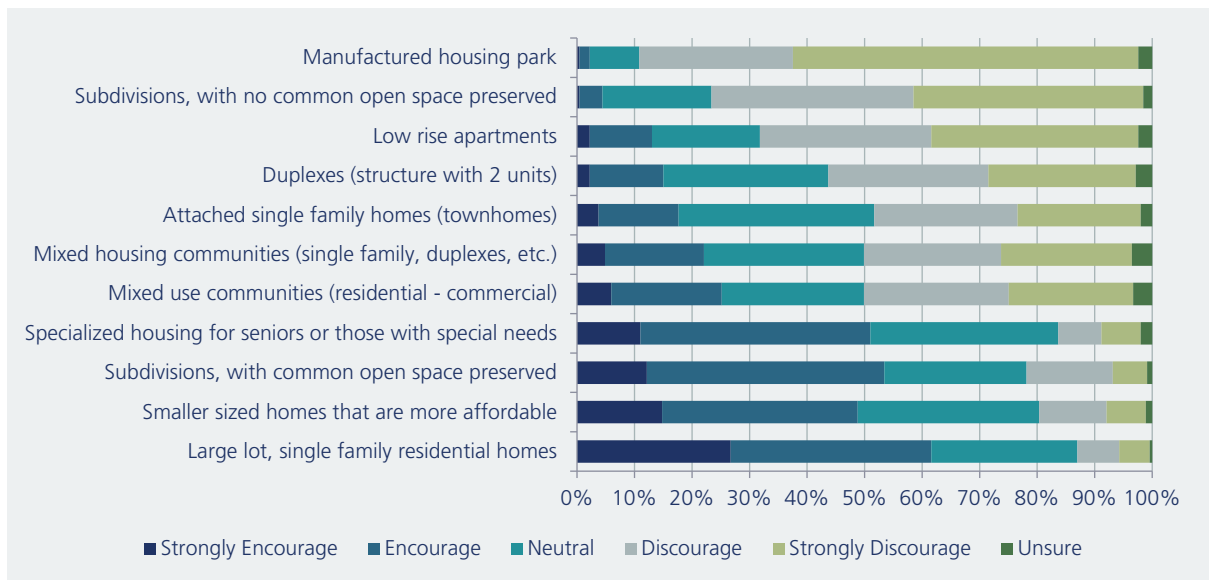
Community's Opinion on the Pace of Residential Growth



Q5. Since 2010, there have been approximately 250 new homes built in Dexter Township. Most of these new homes are single family homes on large lots or in subdivisions. If Dexter Township continues to grow, please indicate how you agree with the following housing types.

Dexter township residents value the rural low-density residential character. When asked about the type of housing they would like to see in the township in the future a vast majority either strongly encourage or encourage low-density typologies such as: Large lot single family residential homes (62%), Subdivisions with preserved open spaces (53%), Housing for seniors (51%) and smaller sized affordable single family residential homes (49%). It is also important to note that community’s support decreases as the density of housing typologies increases; Most respondents either discourage or strongly discourage a range of housing typologies ranging from duplexes to low rise apartments and do not favor mixing of housing densities as well. Almost 90% of respondents do not wish to see manufactured housing parks in the township.

Community’s Future Housing Preferences



Q6. In general, residential development in the township should be..

While there appears to be a consensus on controlling growth and density and preserving open space in the township, almost 50% of survey takers still encourage residential development so long as the development is in line with the land use priorities of the community. It is therefore not surprising that 85% of respondents wish to see future residential development in the township stringently regulated.

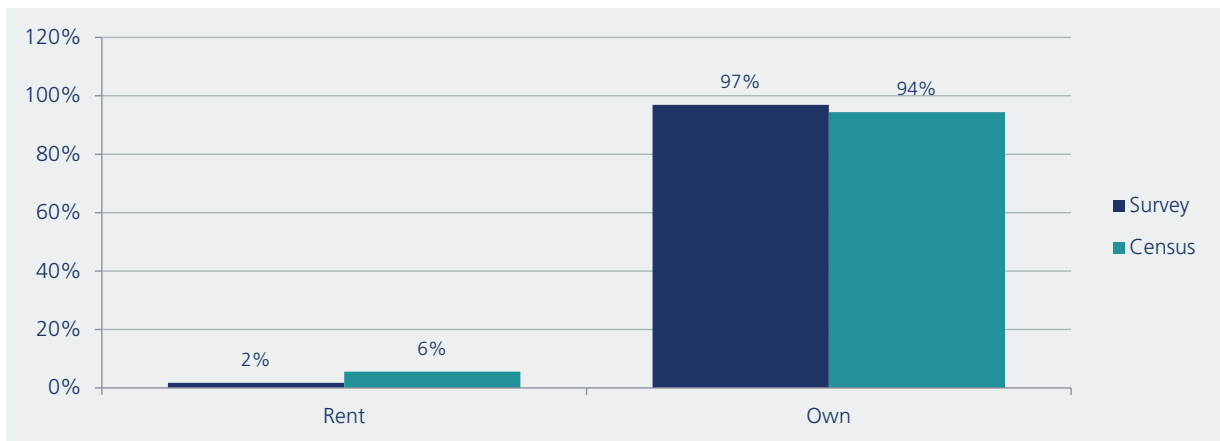
Future Residential Development Preferences



Q7. Do you rent or own your home?

Homeowners account for 97% of respondents, renters 2%, and 1% are not financially responsible for their housing. Considering 94% of township residents are homeowners and 6% are renters as per 2020 American Community Survey (ACS) 5-year estimates, the respondents are a largely representative sample.

Housing Tenure of Respondents



Renters' Market in Dexter Township

Respondents were filtered based on their housing tenure and the 2% of renters answered this sub section of the questionnaire.

Q8. In the next five years I plan to..

When asked on their housing plans in the next five years, 38% said they would continue to rent their current unit and 25% said they intend to buy a home in the township.

Homeowners' Market in Dexter Township

Homeowners, who account for 97% of survey respondents, answered this sub section of the questionnaire.

Q9. In the next five years I plan to..

Almost 93% of respondents plan to remain in their current home and 4% plan to sell their current home and move outside the township. Few plan to build new homes on their property and few respondents also stated that their decision to continue owning a home in the township depends on future growth patterns/overcrowding, tax burden, and capacity of schools.

COMMERCIAL DEVELOPMENT

The purpose of including this section in the questionnaire was to recognize the community's needs preferences for commercial development in Dexter Township.

Q10. Which best describes how you view the number of commercial businesses in the township?

Approximately three quarters (72%) of survey respondents feel the number of commercial businesses in the township is just right, while almost a quarter (24%) of them feel that the number should be increased. The remaining 4% noted that there are too many businesses in the township.

Q11. Where would you like to see commercial growth located?

Nearly one half of respondents do not wish to see commercial growth in the township which ties in with the respondents' overall priority to remain a predominantly rural residential community. Among those who support commercial growth, 33% preferred to see commercial development along the township's major corridors—Dexter-Pinckney Road and North Territorial Road, 18% preferred the North Territorial Road/Stofer area, and 13% preferred the northeastern corner of the Portage Lake area along McGregor Road. Amongst the 11% open ended responses many showed a strong inclination to concentrate commercial development in existing commercial areas and vacant commercial properties and support local neighborhood-scale businesses over commercial chains.

Preferred Location for Commercial Growth

Location	Percentage of respondents	Number of Respondents
Dexter - Pinckney / N. Territorial area	33%	150
Dexter - Pinckney, northwest of McGregor Rd	11%	49
McGregor Rd / Portage Lake area	13%	59
N. Territorial/Stofer area	18%	83
I do not want commercial growth	45%	203
Other	11%	50

Q12. What type of new commercial establishments would you like to see in Dexter Township?

Respondents show a strong demand for grocery stores, general store, and produce stores with nearly 50% favoring such commercial development. At 44% restaurants and food service establishments come in second followed by healthcare offices at 18%. Mirroring responses in question 11, 35% of survey takers do not wish to see any new commercial establishments.

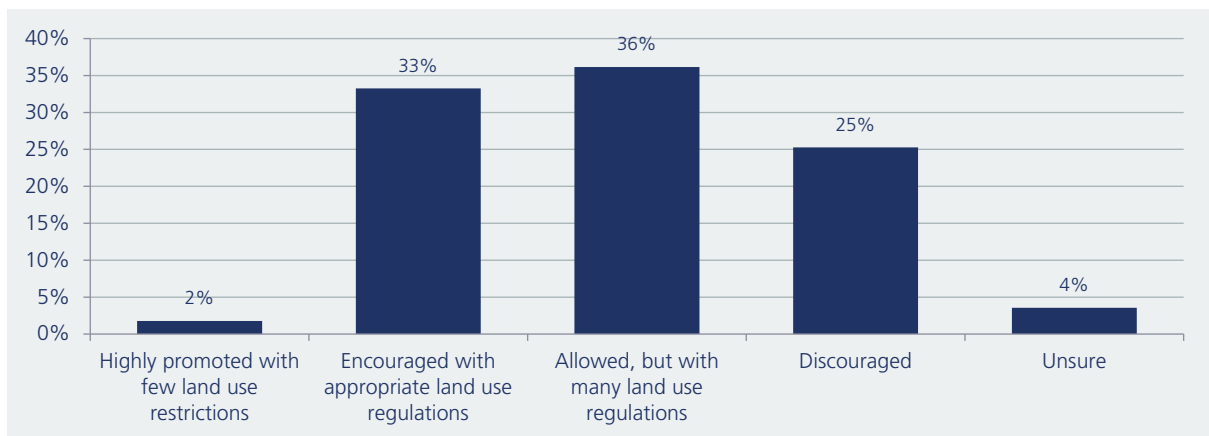
Demand for New Commercial Establishments

Location	Percentage of respondents	Number of Respondents
Grocery store, general store, produce store	48%	215
Food service/restaurant	44%	197
Professional office (engineers, accountants, lawyers, etc.)	13%	60
Health care office	18%	81
Auto-oriented (mechanic, gas station, etc.)	8%	38
I don't want commercial establishments	35%	156

Q13. In general, commercial development in the township should be...

The respondents vary in their opinions regarding commercial development in the township. About 33% state that commercial development should be encouraged with proper land use regulation while 36% feel it can be permitted if required subject to stringent land use regulation. In contrast, about a quarter of respondents prefer to discourage commercial growth in the township. Given the varied preferences, the township should focus on recruiting local business such as grocery/convenience stores and restaurants/cafes in vacant commercial properties in designated commercial areas or along the major throughfares.

Future Commercial Development Preferences



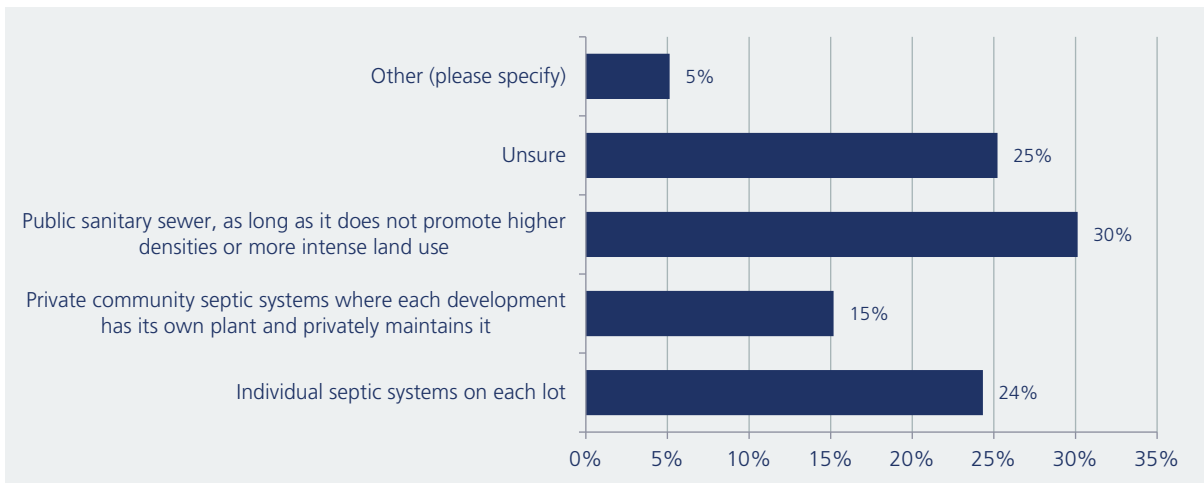
INFRASTRUCTURE AND SERVICES

The following section of the survey aims to determine the community's opinion on the functioning of existing infrastructure and services such as sanitary waste systems, septic systems, trash and recycling facilities, and non-motorized transportation.

Q14. What type of sanitary waste system should Dexter Township consider for new residential developments?

30% of survey respondents shared their support for the township's utilization of public sanitary sewer systems, so long as they don't encourage higher-density developments or more intense land uses. However, a quarter (25%) of respondents stated that new residential developments should plan for individual septic system on each lot while 15% favor private community septic systems. Of the 5% survey takers who chose the other option, majority favored public sewer systems, indicating an overall preference for this type of sanitary waste system.

Preferred Sanitary System for New Residential Development



Q15. Should Dexter Township consider allowing existing homes that currently have septic systems to connect to a public sanitary sewer system in the future?

Aligning with the responses favoring sanitary waste systems in the previous question, 66% of respondents agreed that homes currently on septic systems should be allowed to connect to a public sewer in the future.

Q16. Would you support a coordinated garbage and recycling pickup through the township, where a preferred hauler is selected, and residents have the option of enrolling at a reduced rate?

Over 80% of respondents support a coordinated garbage and recycling pickup through the township with the option of enrolling at a reduced rate.

Q17. Alternatively, should the township select one hauler to provide curbside trash collection to all residents? (Note: This option would reduce wear on our local gravel roads.)

Over 70% of respondents supported curbside trash collection services to all residents indicating a slightly stronger preference for coordinated garbage and recycling pickup through the township.

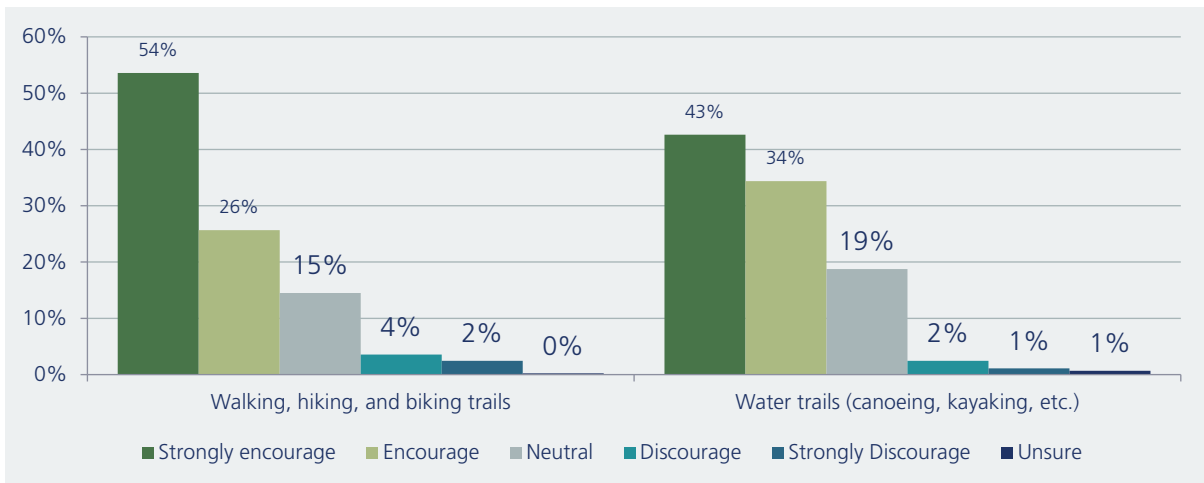
Q18. If you answered YES to question 17, should recycling be included in curbside pickup?

Nearly 85% of respondents who said yes to curbside trash collection also supported curbside recycling pickup.

Q19. Please indicate your level of encouragement with the following types of non-motorized transportation in Dexter Township.

In line with the community’s strong inclination to preserve natural features and the environment, many township residents either strongly agree (54%) or agree (26%) that walking, hiking, and biking trails and water trails should be encouraged and either strongly agree (43%) or agree (34%) that water trails must be encouraged in the township. With robust park and recreation facilities, the township can efficiently program non-motorized trail networks within the township.

Community Support for Non-motorized Transportation



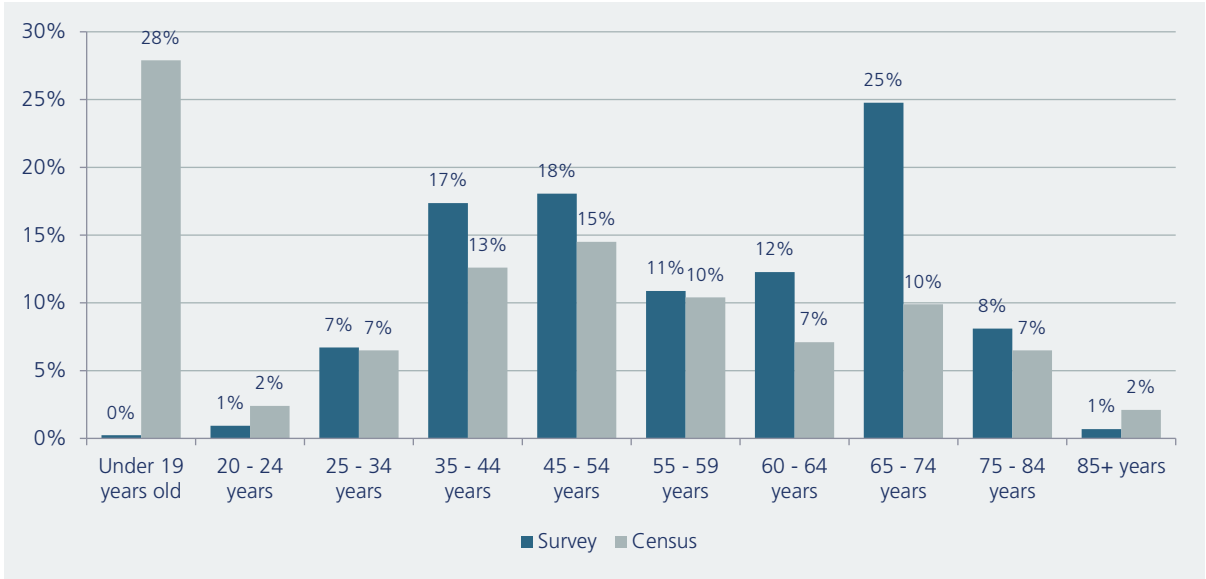
DEMOGRAPHICS

This section of the survey asked respondents about their employment and demographics. By comparing self-reported data on demographics from the survey with the most recent census data it is easy to determine if the respondents are representative of the township’s population.

Q20. What age group do you fall into?

Survey respondents skewed older, compared to Dexter Townships’s population. Ages 35 and above were over represented and ages 34 and younger were underrepresented. However, young children are not the target audience for this survey, which contributes slightly to the skewness.

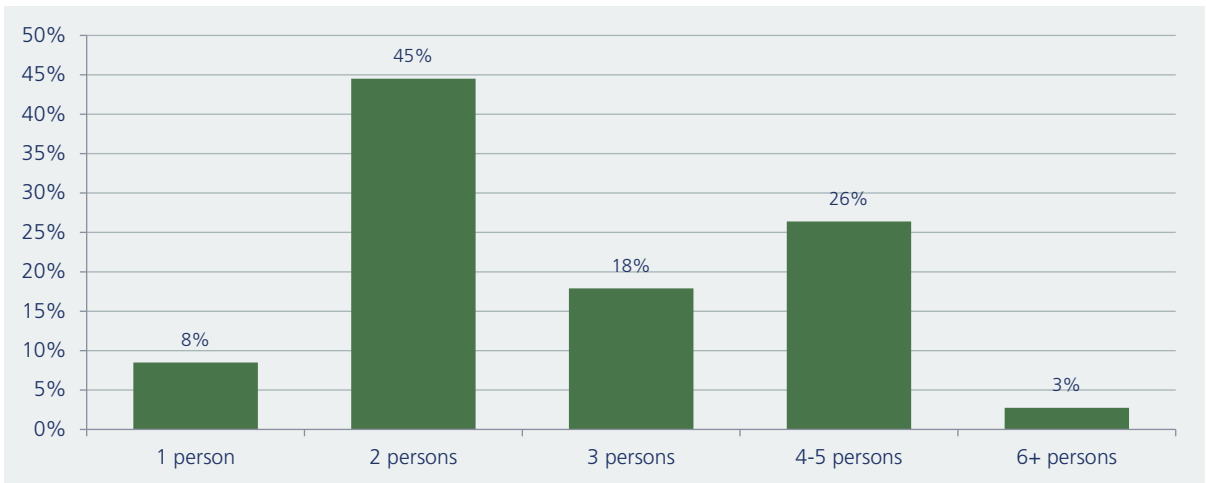
Age of Respondents compared to 2020 ACS 5-Year Estimates



Q21. How many members are in your household?

Nearly half of the survey respondents comprise of two person households which corresponds to the 57% of respondents aged over 55 years who tend to be empty nesters and seniors. Families with four to five persons contribute to 26% and 3 person-families account for 18% of respondents likely due to 42% of respondents falling in between 25-54 years of age comprising of new and mature families with children.

Number of Members in Respondents' Household



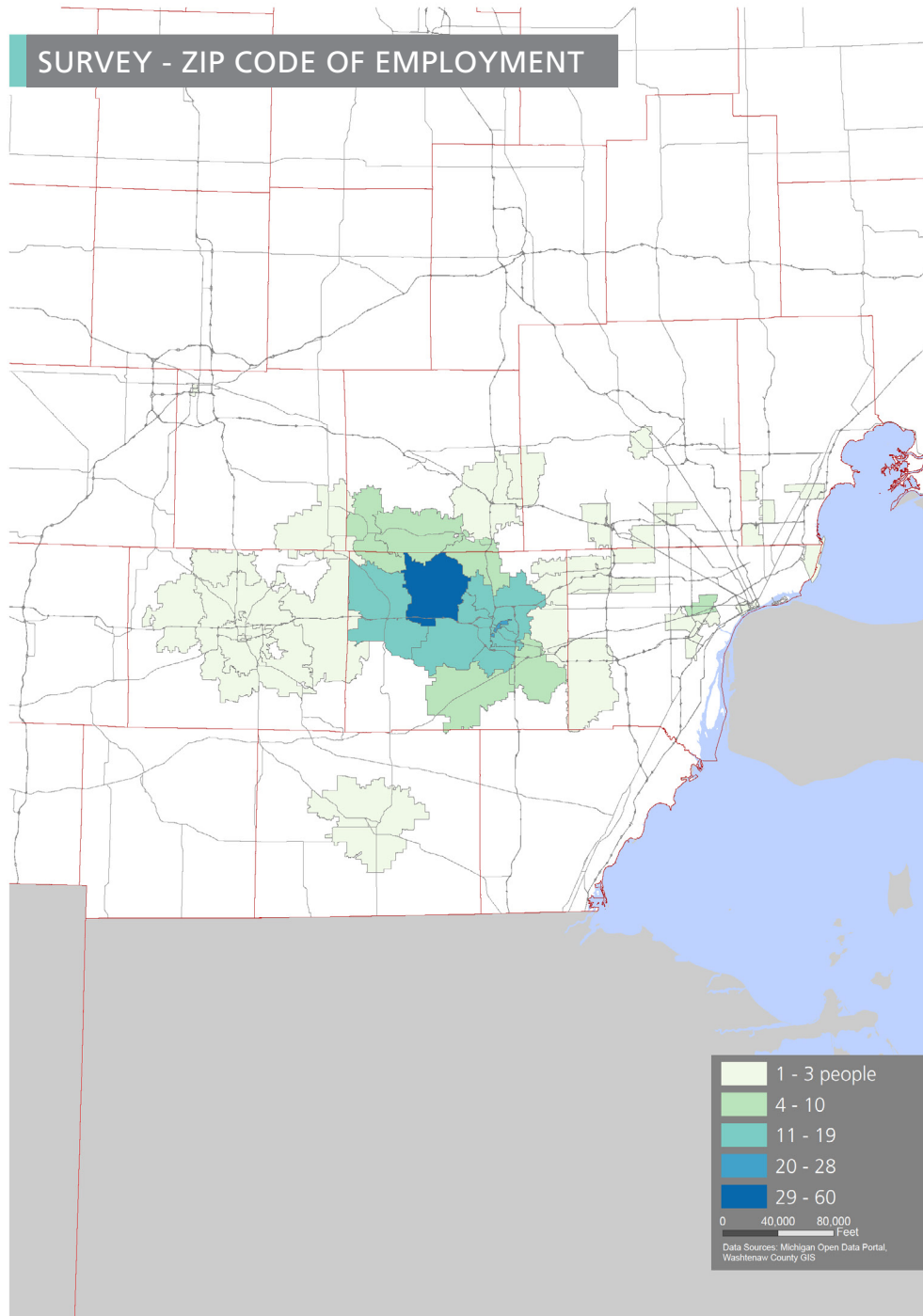
Q22. Please indicate your employment status.

Over half (56%) of respondents were employed full-time, 8% were employed part-time, and 34% were retired at the time of the survey. According to the 2020 ACS 5-year estimates, 61%

of township residents are in the labor force of which almost 60% are employed, indicating the respondents are representative of the township's population.

Q23. In what zip code is your place of employment?

A total of 271 people responded to this question, 59% of all respondents, of which 81% are employed in the Washtenaw County region.



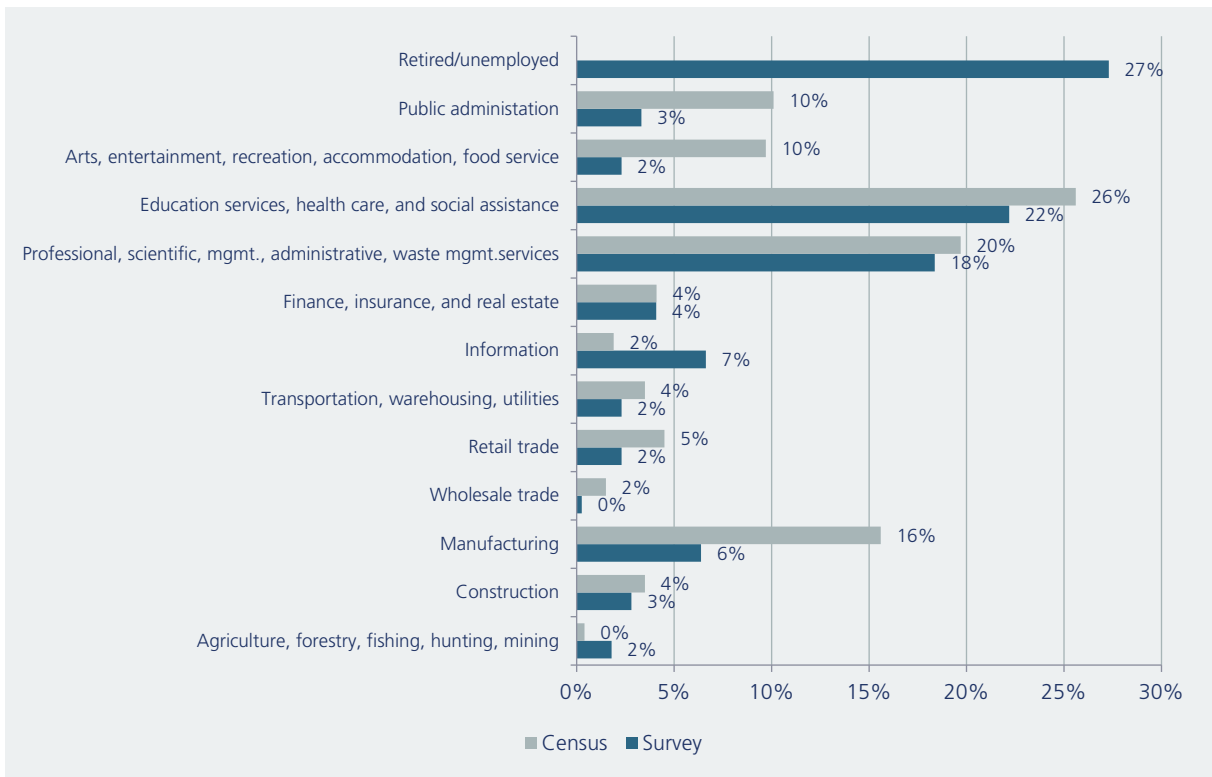
Q24. Do you own and/or operate a business in Dexter Township?

Only 8% of respondents own or operate a business in Dexter Township.

Q25. What sector do you work in?

Among the 85% respondents who answered this question, the employment data for the respondents was fairly consistent with the employment data from the 2020 ACS 5-year estimates. Those employed in manufacturing were underrepresented in the survey and those in “information” were overrepresented. Additionally, retirees/unemployed persons account for 27% of respondents which contributes to the skewness.

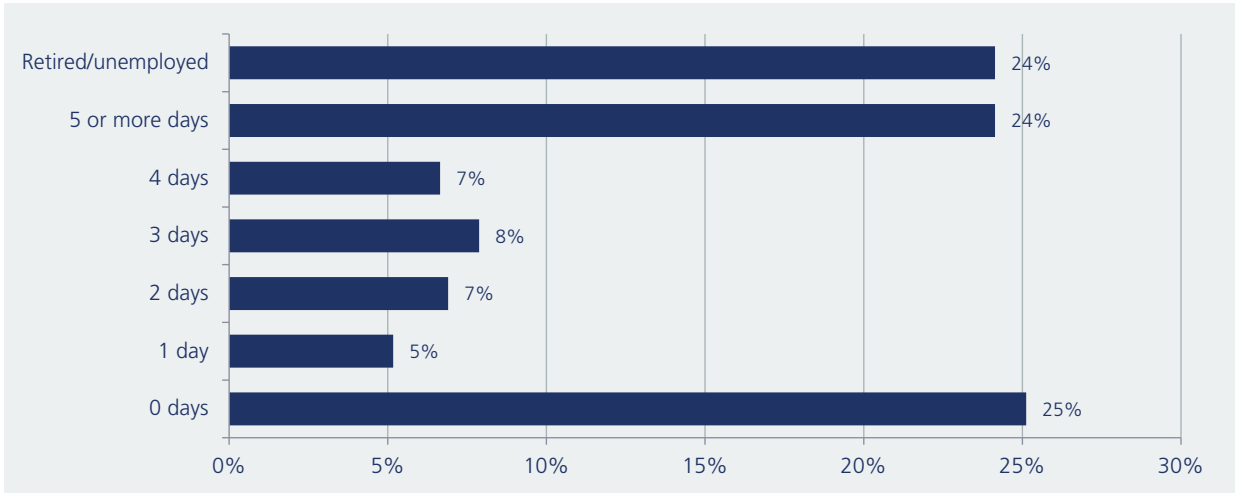
Respondents’ Employment Sectors compared to 2020 ACS 5-Year Estimates



Q26. How many days a week do you work from home?

52% of survey respondents indicated that they work from home 0-4 days a week, therefore needing to commute at least one day a week. Among the 88% respondents who answered this question, a quarter shared that they do not work from home ever, and 12% indicated that they work from home 2 days a week at most. Nearly a quarter of respondents (24%) work from home five or more days, and another 24% are retired or unemployed. Considering that the majority of township residents commute outside for employment, the regular commuters who seldom work from home are most affected by traffic and congestion along the township’s major arteries, in this case 25-37% of respondents.

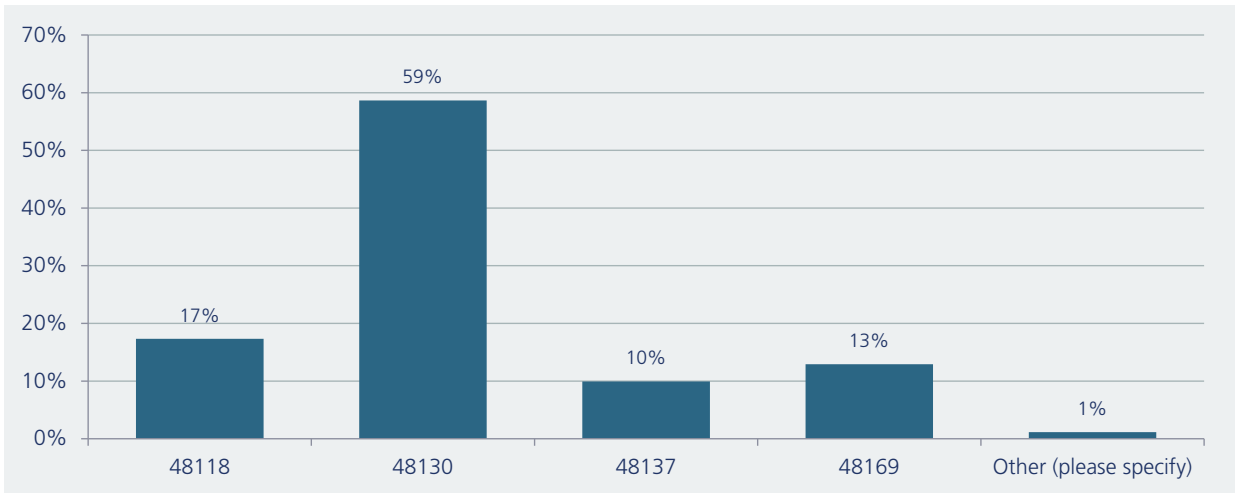
Percentage of respondents Working from Home



Q27. What zip code do you live in?

The distribution of respondents in specific zip codes is shown in the figure “Zip codes Respondents Live in”

Zip codes Respondents Live in



Q28. What school district do you live in?

Most of the survey residents (68%) live in the Dexter school district, 28% live in the Chelsea school district, and 4% live in the Pinckney school district.

Q29. If you have children in primary or secondary school, what school district do they attend?

Majority (65%) of the survey takers do not have children in the primary or secondary school. Among the remaining who have children in school age cohort, nearly a quarter attend Dexter Community Schools. This question only had a 79% response rate.

School District which Respondents' Children Attend

Location	Percentage of respondents	Number of Respondents
Dexter Community Schools	24%	86
Chelsea Schools	6%	20
Pinckney Community Schools	1%	3
Private/charter school	3%	12
I do not have children in primary or secondary school	65%	236
Other	2%	8

Q30. Do you live in Dexter Township?

Almost 95% of survey respondents live in the township.

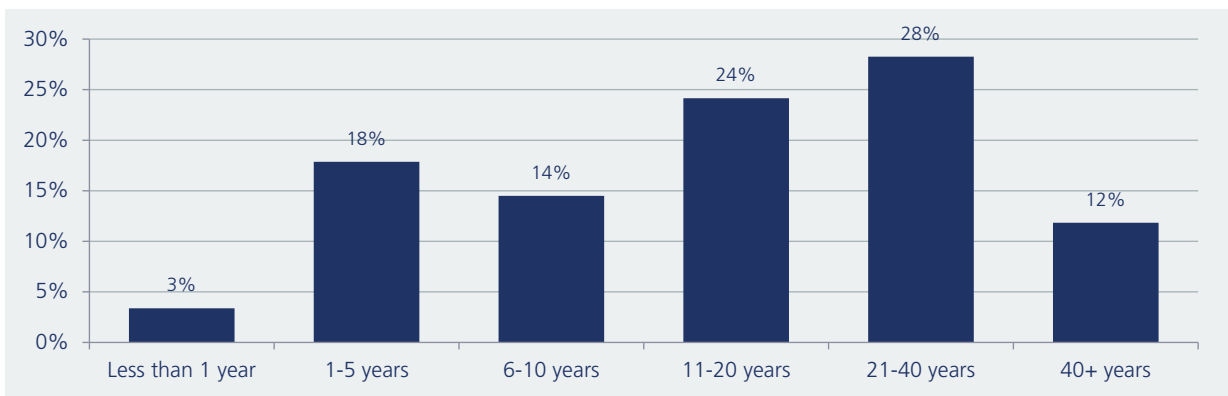
QUESTIONNAIRE FOR DEXTER TOWNSHIP RESIDENTS

Respondents who live in Dexter township, based on response to question 30, answered an additional set of questions as noted in this section.

Q31. How long have you lived in Dexter Township?

Respondents have lived in the township over a range of years indicating that survey answers include preference of both recent and long-term residents. Over 65% of respondents are long-term residents, with 24% having lived in the township for 11-20 years, 28% for 21-40 years, and 12% for 40 plus years.

Years Respondents have Lived in Dexter Township



Q32. What describes where you live?

40% of respondents shared that they live on a non-subdivision residential lot while 30% live in a subdivision. About 31% live on/near a water body and 4% live on a farm.

Where do Respondents Live?

Location	Percentage of respondents	Number of Respondents
I live on/near a lake, river, or stream	31%	128
I live in a subdivision	30%	125
I live on a farm	4%	16
I live on a residential, non-subdivision lot	40%	164
Other	4%	17

Q33. On what size parcel do you live?

While respondents live on different parcel sizes, most (47%) live on 1–2-acre parcels.

What Size Parcels do Respondents Live in?



Q34. Is part of your land commercial farmed?

Consistent with the responses to question 32, only about 3% live on land where a part is commercial farmed.

Q35. Who farms your land?

Most respondents do not live on farmed land. Among the remainder small percentage who do live on farmed land, 3% farm themselves and 4% have someone else farm their land.

Q36. How many acres of your land is farmed?

Most respondents do not live on farmed land. Among the remainder small percentage who do live on farmed land, 4% farm under 10 acres of their land.

Q37. Please describe the reason(s) you choose to live or continue to live in Dexter Township.

This was an open-ended response and respondents submit a wide array of answers, but the most common reasons are listed below:

- » Rural character and low-density neighborhood
- » Availability of farmland and access to farming resources
- » Proximity to employment centers
- » Presence of abundant natural features, clean air, and open spaces.
- » Access to robust school districts
- » Recreational opportunities

Q38. What type of road do you live on?

Around 61% of respondents live on public roads while 39% on private roads.

Q39. What type of surface is the road you live on?

Around 47% of respondents live on gravel surface and 53% on paved surfaces.

Q40. What type of sanitary waste disposal does your residence have?

Majority of respondents' residences have private septic systems (77%), and the remaining are connected to public sewer systems (23%).

Q41. Do you recycle?

Over half of the respondents recycle using the bins at the Township Hall, 45% recycle but not at the Township Hall, and 4% do not recycle.

Q42. If there are other issues that you would like to bring to the attention of the Planning Commission and were not covered in the survey, please leave a comment in the space provided.

Some common themes from responses are listed below:

- » Lack of public internet access and broadband service
- » Traffic congestion and lack of safe intersection along the Dexter-Pinckney Road and North Territorial Road.
- » Quality of local township roads
- » Access to curbside trash and recycling facilities at nominal rates.
- » Increasing property tax rates
- » Concerns about public infrastructure and public services with uncontrolled growth and density increase.
- » Concerns about transitioning away from rural residential community.

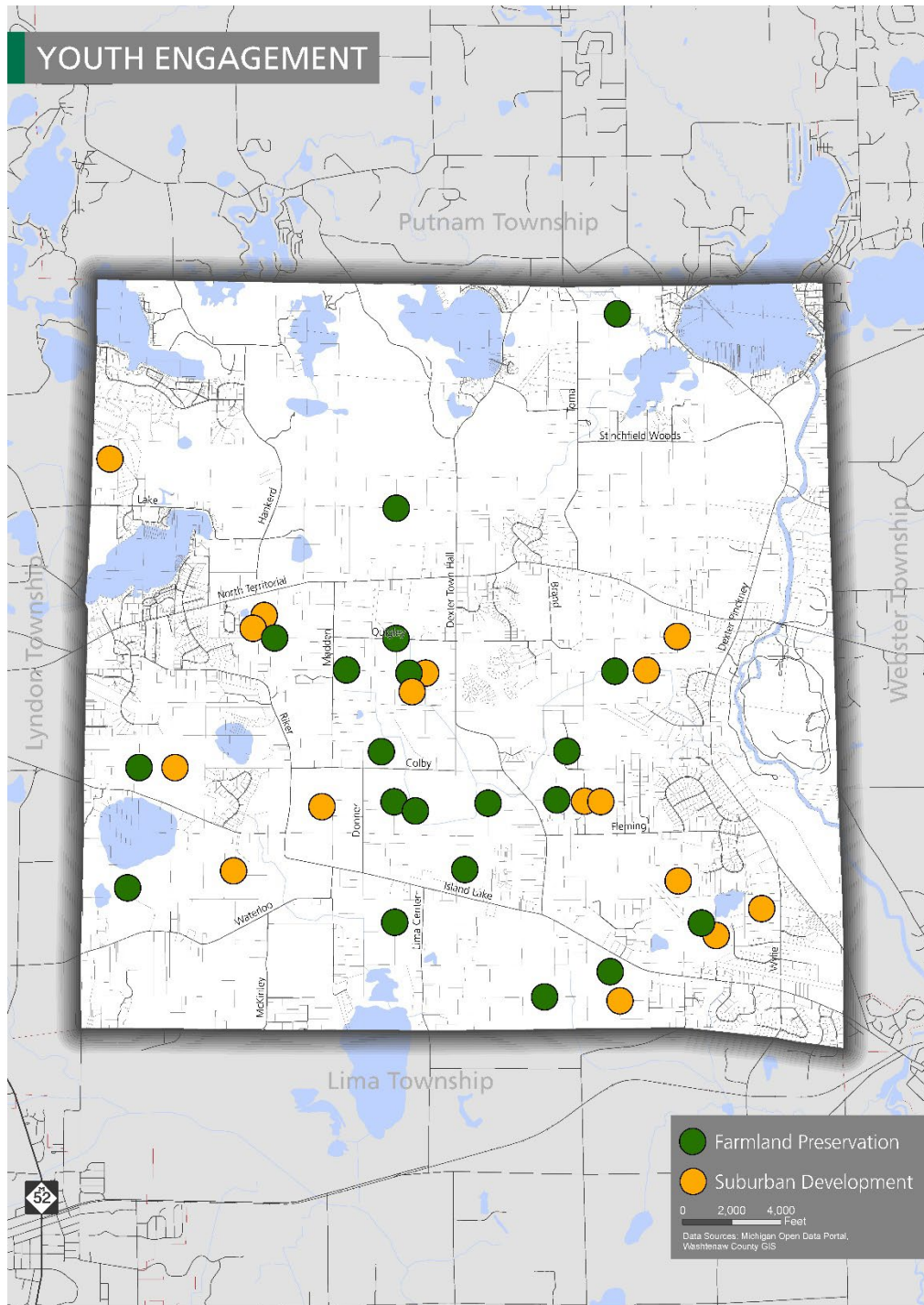
APPENDIX B: YOUTH ENGAGEMENT RESULTS

YOUTH ENGAGEMENT SUMMARY

On February 10th 2023, a youth engagement session was held at Dexter High School. The session was conducted with one class of roughly 25 students. The session began with an introduction to the concept of urban planning and covered long-range comprehensive planning and zoning. Additionally, the presentation introduced the concept of equity, the history and legacy of redlining in southeast Michigan, and why it is important to think about and plan for equity during the master planning process. The first activity asked students to think through a common land use issue in urban periphery communities (like Dexter Township), the tension between suburban development and farmland preservation. Students first wrote down the pros and cons of each land use strategy.

Suburban Development	
Pros	Cons
<ul style="list-style-type: none"> » More housing » More affordable » More community influx of consumers, money, etc. » More taxpayer dollars going into the community » Lower housing costs » More homes » Greater sense of community » Decrease housing costs » Increase in tax money for government, schools, parks, etc. » Higher student population 	<ul style="list-style-type: none"> » Environmental concerns » History of the community is lost » Road congestion » Less undeveloped areas » Less farmland » Busier roads, cities » More people » Loss of farmers » More pollution » Urbanization(?) » Long time for houses
Farmland Preservation	
Pros	Cons
<ul style="list-style-type: none"> » Environment » Enjoyable areas/aesthetic » Property value » Traditional values » Local economy/products » Loss crowded/open space » Natural beauty of area » Recreational or historical significance » History of the community isn't sacrificed » Not just walls of housing » Space for nature, animals 	<ul style="list-style-type: none"> » Less housing available » Pricier housing » Underutilized land opportunity » No development » No diversity » Methane (ish) » Cost of housing » People not being able to live here

Then students were asked to identify what areas of Dexter Township would be suited for farmland preservation or suburban development by placing colored wood blocks on a map of the township.



After the farmland preservation v. suburban development exercise the students were asked to identify strengths, weaknesses, and opportunities (SWO) within the township. They placed

numbered dots on a map of the township and wrote a description of the location they identified. Subsequent students could state their agreement by marking a tally on the sheet next to the map.

	Key	Description	Tally
Strengths	S1	Pinckney State Recreation Area	7
	S2	Hudson Mills Path	9
	S3	Dexter Pinckney Road	3
	S4	Peach Mountain	8
	S5	Zingerman's	7
	S6	Dexter School District	4
	S7	Huron River	6
	S8	Portage Lake	3
	S9	Silver Lake	1
	S10	New Houses	1
Weaknesses	W1	Golf Course	8
	W2	Virtually unusable farmland	0
	W3	Bell Road Bridge	1
	W4	I want a zoo	1
Opportunities	O1	Recreation activities and facilities, more trails	2
	O2	Property near lake for housing, in Pinckney School District	1
	O3	Bike path between Hudson Mills and Peach Mountain	3
	O4	Commercial/Grocery Store	1
	O5	Commercial Area	1
	O6	Remove golf course – opportunity not to kill the environment	7
	O7	Costco superstore	0
	O8	Skate park	1
	O9	Amphitheater, open stage for orchestra, bands, theatre, etc.	3
	O10	Trail from suburbs to downtown	5

YOUTH SWO

Putnam Township

