# DEXTER TOWNSHIP



MASTER PLAN 2011

## Dexter Township Master Plan

Dexter Township, Michigan

#### August 23, 2011

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Patrick Sloan, Director of Planning & Zoning Kim Jordan, Recording Secretary and Office Manager

#### **Dexter Township Planning Commission**

John Shea, Chair Kenneth Tappe, Vice Chair Mary Adams, Secretary Vickie Kooyers James Korcek Tom Lewis Molly Wade

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#### **Boards, Committees, and Authorities**

Dexter Township Board of Trustees Dexter Township Zoning Board of Appeals

#### **Expert Groups and Agencies**

Washtenaw County Department of Economic Development & Environment Washtenaw County Department of Geographic Information Systems Huron River Watershed Council (HRWC) Washtenaw Area Transportation Study (WATS)

#### **Special Thanks**

A special thank you to the residents of Dexter Township who participated to provide input from which this Plan emerged. This Plan would not have been possible without your contributions.

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## **Introductory Letter**

## **Chapter 1: Introduction**

#### **Purpose of the Master Plan**

In general, the purpose of this document is to serve as a guide for the development of Dexter Township. The Michigan Planning Enabling Act (P.A. 33 of 2008, as amended) requires all municipalities to adopt a plan that addresses land use issues. These issues include those related to agriculture, residential, commercial, industrial, recreational, public uses, transportation, natural features, and utilities.

A memorandum from the Washtenaw County Department of Economic Development & Environment, titled "Population Projections and Legal Defensibility," best summarizes the public purposes of a master plan (called the 5 C's of planning). They are:

- **1.** Community Character to ensure that growth and development will sustain or enhance the community's desired physical character.
- 2. Compatibility to sustain the quality of life and economic viability of existing residents, farmers, and businesses.
- 3. Conservation and Open Space to sustain important natural features for wildlife and resident use.
- **4.** Capacity to ensure that future development can be adequately served with public facilities and services and to minimize tax burdens on existing residents.
- 5. Consistency with Other Plan Provisions to ensure that other important community goals are realized.

In the last several years many changes have occurred within the Township and neighboring communities that have impacted the Township and, as a result, have warranted a re-evaluation of the Township's policies with respect to growth, development, and land use. To effectively tailor planning policies and development guidelines to these changes, it is necessary to establish a written and graphic statement concerning development goals, objectives, and strategies on a periodic basis. The process that was followed in the preparation of this Master Plan accomplishes that task.

The primary objective of planning is to guide future events to achieve a better environment in which to live, work, and play. In other words, the purpose of planning is to aid citizens and public officials in making decisions about the future. The Plan document and maps are the products of the planning process, which attempts to balance community goals in order to guide the growth of the Township. **The Plan is not a panacea or "cure all"** for potential conflicting desires of citizens and Township officials. Rather, it is a long-range statement of general goals and objectives aimed at the unified and coordinated development of the Township. As such, it provides the basis upon which zoning and land use decisions are made.

#### Use of the Plan

The Plan serves many functions. First, as a general statement of the Township's goals, it provides a single, comprehensive view of what the Township desires for the future.

Second, the Plan aids in day-to-day decision-making. The goals, objectives, and strategies outlined in the Plan guide the Planning Commission and Township Board in their deliberations on zoning, subdivision, capital improvements, and other issues related to Township growth. The Plan provides a stable, long-term basis for decision-making and an agenda for the achievement of goals and objectives.

Third, the Plan provides the statutory foundation upon which zoning decisions are based. The Michigan Zoning Enabling Act (P. A. 110 of 2006, as amended) requires that the zoning ordinance be based upon a plan designed to promote the public health, safety, and general welfare.

Finally, the Plan functions as an educational tool. Background studies and analysis form the basis for various plan elements (along with the goals and objectives). In addition, the Plan provides a statistical view of the economic, demographic, cultural, and natural make-up of the Township. This analysis, coupled with a statement of development goals, objectives, and strategies gives citizens, landowners, prospective developers, and adjacent communities a clear description of the Township's vision of the future.

#### **The Planning Process**

Planning is an ongoing, cyclical process (see **Figure 1**). It is inherently dynamic, fluid, and changing. In general, the planning process is an attempt to answer a series of questions:

#### • Why make a plan?

To be proactive by continually updating the plan. Amend or adopt new policies in reaction to something that is or has been happening.

• What do we have?

Research, inventory, and analyze social and physical characteristics. Identify strengths, weaknesses, and trends.

• What do we want?

Seek community input and determine the Township's development goals, which make up the Township's vision of the future.

• *How do we reach our goals?* 

The general objectives, strategies, and future land uses that can be utilized to create the conditions the Township desires in order to realize the vision.

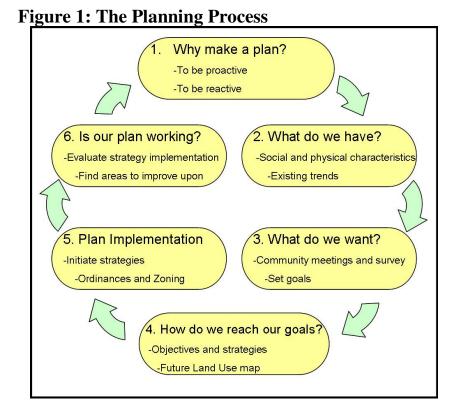
• *Plan Implementation.* 

Adoption/initiation of recommended strategies to implement the plan. This includes ordinance adoption and zoning amendments.

• Is our Plan working?

Analysis of implementation results to determine if the Plan is accomplishing what was originally desired. Identify areas of the Plan that require improvement.

In viewing planning as an ongoing, cyclical process it becomes possible to make the Plan a "living" document – one which is flexible enough to meet changing conditions and yet firm enough to provide stable, long term guidance to decision makers. In so doing, the planning process can become an integral part of the decision-making process.



## **Chapter 2: Community Description**

#### **Southeast Michigan Regional Setting**

The State of Michigan is currently divided into 14 planning regions. These planning regions were organized under Michigan's Regional Planning Act (P.A. 281 of 1945, as amended). Dexter Township, located within Washtenaw County, is part of Region 1. This planning Region is commonly known as the Southeast Michigan Council of Governments (SEMCOG), and consists of Wayne, Oakland, Macomb, St. Clair, Monroe, Livingston, and Washtenaw Counties (See **Map 1**). Based on population, Region 1 is by far the largest of Michigan's 14 planning regions. Region 1 contains nearly 5 million people, which is almost half of Michigan's population.

Map 1: Southeast Michigan Region

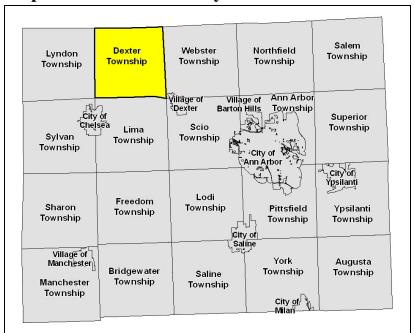


Source: U.S. Census Bureau

#### **Washtenaw County Setting**

Washtenaw County is 721 square miles in area and contains 20 townships, 5 cities, and 3 villages (See **Maps 1 and 2**). The County includes an excellent mix of urban, suburban, and rural settings. Based on population, Washtenaw County is the 6<sup>th</sup> largest county in the State. Dexter Township is located in the northwestern part of the county. The center of Washtenaw County in terms of population and economy is the City of Ann Arbor, which contains approximately one-third of Washtenaw County's population.

**Map 2: Washtenaw County** 



Source: Washtenaw County Department of GIS

#### **Dexter Township Setting**

Dexter Township (See **Map 3**) is approximately 33 square miles in area and is mostly rural. 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 agricultural areas. These attributes have attracted residential growth, which was 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.

#### "Dexter Township Region" Setting

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, 8 adjacent townships, 2 villages, and 2 cities (See Map 4). Three of the surrounding townships (Hamburg, Putnam, and Unadilla) and one (1) surrounding village (Village of Pinckney) are in Livingston County to the north. The rest of the municipalities are in Washtenaw County. In Map 4, Dexter Township is located in the middle of a triangle, with the City of Chelsea to the southwest, the Village of Dexter to the southeast, and the Village of Pinckney, in Livingston County, 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 an area so large, one can get a sense of the surrounding environment, land uses, transportation network, and economy. This will enable Dexter Township to better formulate its own goals, policies, and objectives. By formulating its own future development and land use goals, policies, and objectives from a regional perspective, Dexter Township will hopefully encourage surrounding municipalities to do the same.

#### **History of Dexter Township**

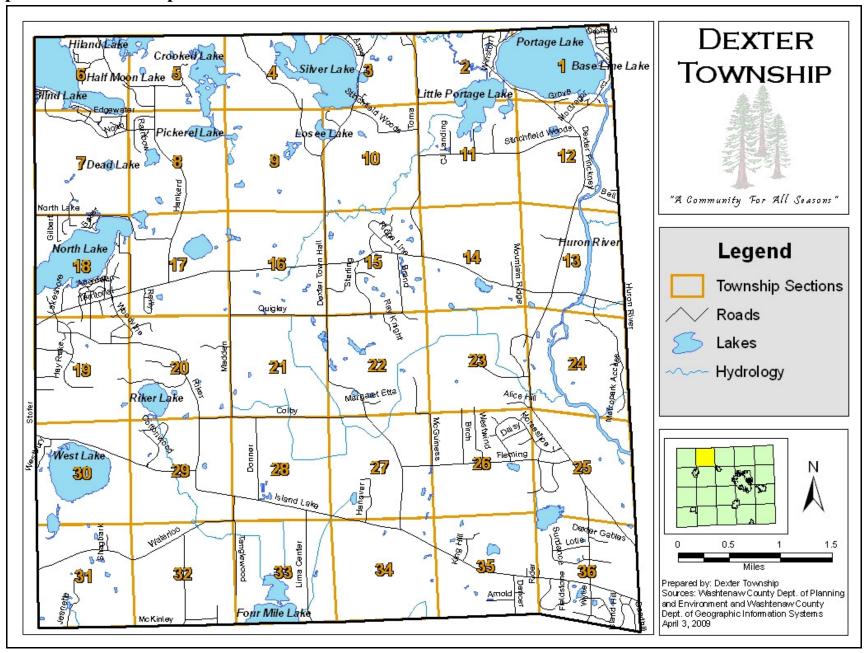
Early in the recorded history of Dexter Township are found reports of several Indian villages. The first colonial settlers came mainly from New York. The first settlement was made in 1825, on the northeast fractional ¼ of section 36, by two brothers and their families. Samuel W. Dexter purchased the 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.

Due to original surveying errors, the northern portions of the Township (Sections 1-6) contained less than three-quarters of their prescribed quota of land. Many other sections fell short by as much as fifty to sixty-five acres per section. A section is a one mile by one mile area and a typical township contains 36 sections (36 square miles). As a result of these surveying errors, Dexter Township is roughly 33 square miles.

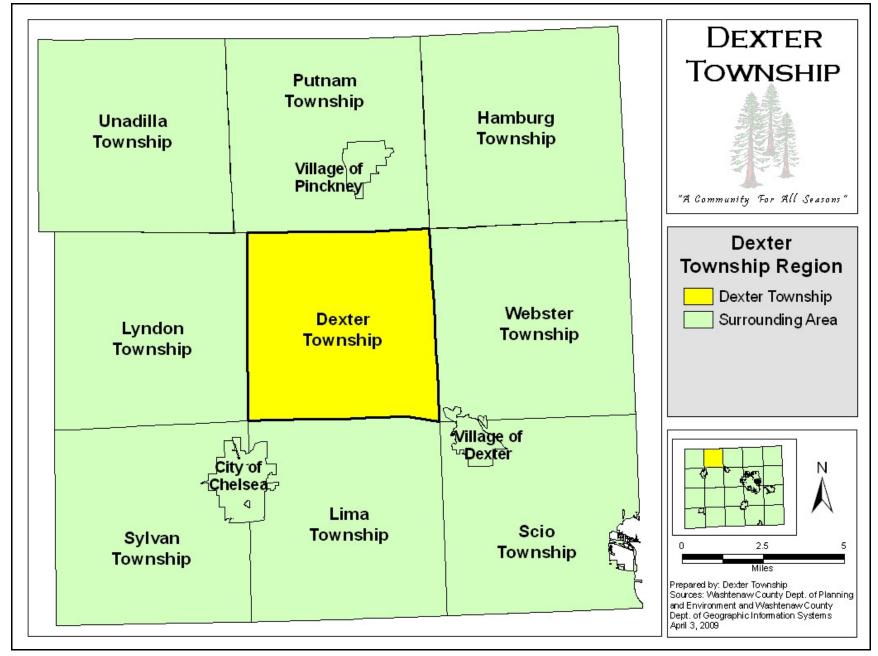
The early settler began farming as soon as the land was purchased. Wheat was the leading crop for some time, and nearly every farm produced corn, barley, oats and clover. Apples were grown in all parts of the township. The farms in the North Lake area produced the best and greatest varieties of fruit of any part of the township. 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 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.

**Map 3: Dexter Township** 



Map 4: Dexter Township Region



### **Chapter 3: Planning Issues and Trends**

#### **Current and Future Planning Issues**

A number of key planning issues face Dexter Township. They vary in scope, but are clearly interrelated and the future quality of life and character of the Township will be largely shaped by the Township's recognition of and strategy for dealing with them. The planning issues that follow are not intended to be all-inclusive. These issues, and others, will evolve over time and will be examined periodically and modified as needed.

#### 1. General Growth Management

The population growth of Dexter Township and *Dexter Township Region* has been strong in recent years. Between 2000 and 2010, Dexter Township's population increased by 794 – 15.1%. During that same time period, the population of the *Dexter Township Region* increased by 9,591 – 13.7%. These rates far exceed that of Washtenaw County (6.8%) over this time period.

Although Dexter Township's population is expected to grow at a slower pace over the next several years, the character and quality of life within the Township will be impacted by the way the Township chooses to manage future growth and development – regardless of the rate at which such growth and development takes place. Managed growth can minimize loss of natural resources, including farmland; preserve the Township's existing character and environmental integrity; encourage orderly land development; assure the efficient expansion of public services and expenditure of Township funds; and limit traffic hazards and nuisances.

Through lot size and density standards, zoning regulations largely determine the maximum population potential (build-out population) of a community. The market dictates the rate of this growth. In the case of Dexter Township where a zoning density of one dwelling per two- to five-acres exists throughout the vast majority of the Township, the Township's build-out population approaches **14,000** persons. The potential for excessive growth over a short or extended time period is real and hinges largely on market conditions. Such growth can have a

dramatic impact upon public services, community character, natural and environmental resources, economic stability, and taxes.

As growth continues into rural, outlying areas like Dexter Township, so does the demand for public services to those areas. Tax revenues dictate, in part, the extent and quality of these services. Although development will increase the township's tax base, the same development will place additional demands upon public services. High growth rates which may be brought on by market conditions and zoning provisions will necessitate the greater expenditure of township funds just to maintain the current quality of public services, let alone pursue improvements. Development patterns that foster and sustain a compact form of growth and minimize new public costs (such as public safety and road infrastructure) should be sought where practical. Sustaining a compact form of growth and minimizing public costs should not be at the cost of the Township's environmental resources, including wetlands, floodplains, and lakes and their watersheds, or the stability of existing residential areas.

In the Dexter Township Community Survey, 65.9% of respondents listed "Management of growth" as a High Priority and 84.7% either Strongly Agreed or Agreed that Dexter Township should "provide a low density, rural atmosphere." At the same time, 78.0% of respondents listed Rural/Country Living as one of "the reasons they chose to live or continue to live in Dexter Township," with 50.3% of respondents listing it as "the most important reason" they live in Dexter Township.

This Plan must provide a strategy for effectively shaping and guiding future growth and development in a feasible manner, consistent with the aspirations of the citizenry of the Township and the opportunities and constraints presented by its natural and cultural characteristics.

#### 2. Residential Development

Residential development will be the major land use change in Dexter Township in the coming years. The Township is a very attractive place to live for many prospective residents. The Township has abundant natural resources and open spaces, an overall rural character, nearby urban services and retail centers, and reasonable access to near and distant employment centers. The population of Dexter Township increased by about 15.1% from 2000-2010 and the number of households increased by about 19.4% over the same time period. By 2035, it is estimated that households will increase by at least another 5.85% (see **page 27** of this Plan).

Even when residential development is of a low density character, there are several constraints to accommodating new residential development in the Township. Constraints include: limited public services; soil limitations and wetland conditions; sensitive natural resources; vulnerable groundwater supplies; existing farm operations and an interest in encouraging farmland resource protection and limiting land use conflicts; and a strong desire to protect the Township's rural character. The accommodation of low-density development should not be based merely on large lot sizes. Such an approach frequently leads to inefficient use of land resources and the unnecessary destruction of natural resources and ecosystems. In areas designated for low-density development, zoning regulations should permit flexibility in lot size while still assuring the development densities conform to recommended maximum levels.

The same constraints referenced above for single-family residential development also present unique challenges in the identification of future locations for medium- and high-density development. There is presently no identifiable community node or activity center within the Township where such uses are frequently guided. Still, the Township recognizes that it is obligated to provide opportunities for all lawful land uses, including medium- and high-density residential development, provided there are an appropriate location and an identifiable need for such uses. It should be recognized that the existing land use pattern in the Township already reflects areas of high-density development, most notably in areas near the lakes.

In the Dexter Township Community Survey, a majority of respondents thought that residential development in Dexter Township over the last 10 years was either "Much too fast" (40.4%) or "A little too fast" (33.1%). While responses were fairly consistent between Dexter Township residents based on the number of years they have lived in Dexter Township, one noteworthy disparity was that 34.9% of respondents who have lived in Dexter Township for 1-10 years thought residential development in Dexter Township over the last 10 year has been "Much too fast" compared to 47.3% of those who have lived in the Township for 21-40 years (See **Table 1**). One explanation for this disparity is that residents who have lived in Dexter Township longer have witnessed the steady rate of growth over the last several decades.

Table 1: Dexter Township Community Survey Cross-Tabulation: Opinion of Residential Growth in Dexter Township over the Last 10 Years Based on Number of Years as a Dexter Township Resident

		Number of Years as a Dexter Township Resident (Question E5)			
		1-10 Years	11-20 Years	21-40 Years	41+ Years
vth vth	Much Too Fast	87 (34.9%)	84 (40.4%)	105 (47.3%)	26 (40.6%)
Grow Grow Pp. Ov 0 Yrs.	Little Too Fast	89 (35.7%)	68 (32.7%)	67 (30.2%)	22 (34.4%)
Opinion of dential Grc xter Twp. Last 10 Y Luestion B	About Right	68 (27.3%)	52 (25.0%)	48 (21.6%)	16 (25.0%)
Opinion of Residential Growth in Dexter Twp. Over the Last 10 Yrs. (Question B1)	Too Slow	5 (2.0%)	4 (1.9%)	2 (0.9%)	0 (0%)
₾ .⊆	No response to the question	24	10	14	3
	Total	273	218	236	67

The most popular housing types in the Community Survey that were either Strongly Encouraged or Encouraged were "Large lot, single family residential homes" (75.0%), "Subdivisions, with some common open space preserved" (62.0%), "Specialized housing for seniors or those with special needs" (59.8%), and "Smaller sized homes that are more affordable" (50.9%). The least popular housing types in the Community Survey that were either Strongly Discouraged or Discouraged were "Manufactured housing parks" (92.3%), "Subdivisions, with no common open space preserved" (90.8%), "Apartments" (82.4%), "Duplexes" (78.1%), "Attached single-family dwelling units" (67.3%), and "Mixed use residential communities" (64.6%). Though most responses were similar between residents based on the number of years they have lived in Dexter Township, there were 2 major differences in opinion between respondents based on how long they have been Dexter Township residents. The first major difference was that while 80.0% of the respondents who have lived in Dexter Township for 1-10 years either Strongly Encouraged or Encouraged "Large lot, single family residential homes," only 67.2% of respondents who have lived in the Township for 21-40 years did so (See **Table 2**).

Table 2: Dexter Township Community Survey Cross-Tabulation: Opinion of Developing Large Lot, Single-Family Homes in the Future Based on Number of Years as a Dexter Township Resident

		Number of Years as a Dexter Township Resident (Question E5)			
		1-10 Years	11-20 Years	21-40 Years	41+ Years
ing mily	Strongly Encourage	99 (37.4%)	55 (26.3%)	78 (34.5%)	20 (33.3%)
Opinion of Developing arge Lot, Single-Family esidential Homes in the Future (Question B2(a)	Encourage	113 (42.6%)	101 (48.3%)	74 (32.7%)	27 (45.0%)
	Discourage	24 (9.1%)	26 (12.4%)	42 (18.6%)	4 (6.7%)
	Strongly Discourage	16 (6.0%)	17 (8.1%)	14 (6.2%)	4 (6.7%)
	Not Sure	13 (4.9%)	10 (4.8%)	18 (8.0%)	5 (8.3%)
O La Re	No response to the question 8 9 10				7
	Totals 273 218 236 6				

The second major difference in opinion between respondents based on how long they have been Dexter Township residents was that while 47.5% of the respondents who have lived in Dexter Township for 1-10 years either Strongly Encouraged or Encouraged "Smaller sized homes that are more affordable," 59.1% of respondents who have lived in the Township 41 years or more did so (See **Table 3**).

Table 3: Dexter Township Community Survey Cross-Tabulation: Opinion of Developing Smaller Sized Homes that are More Affordable in the Future Based on Number of Years as a Dexter Township Resident

		Number of Years as a Dexter Township Resident (Question E5)			
		1-10 Years	11-20 Years	21-40 Years	41+ Years
ing es able	Strongly Encourage	23 (8.7%)	18 (8.7%)	24 (10.7%)	11 (16.7%)
eveloping d Homes Affordabl uture	Encourage	102 (38.8%)	89 (43.2%)	91 (40.4%)	28 (42.4%)
D S O T Z	Discourage	59 (22.4%)	38 (18.4%)	41 (18.2%)	11 (16.7%)
inion of D naller Size are More in the Fi (Questior	Strongly Discourage	46 (17.5%)	39 (18.9%)	40 (17.8%)	9 (13.6%)
Opinion Smaller nat are M in tl	Not Sure	33 (12.5%)	22 (10.7%)	29 (12.9%)	7 (10.6%)
No response to the question		10	12	11	1
_	Totals	273	218	236	67

The responses shown in **Table 3** are similar to the responses of Dexter Township residents when they were asked whether Dexter Township should "encourage housing for moderate income households." While 45.8% of the respondents who have lived in Dexter Township for 1-10 years either Strongly Agreed or Agreed that Dexter Township should "encourage housing for moderate income households," 58.7% of respondents who have lived in the Township 41 years or more did so (See **Table 4**). Similar differences were also seen between residents who have lived in Dexter Township for 11-20 years and those who have lived in the Township for 21-40 years.

Table 4: Dexter Township Community Survey Cross-Tabulation: Opinion of Encouraging Housing for Moderate Income Households Based on Number of Years as a Dexter Township Resident

		Number of Years as a Dexter Township Resident (Question E5)			
		1-10 Years	11-20 Years	21-40 Years	41+ Years
iging rate Ids )	Strongly Agree	22 (8.4%)	<mark>16</mark> (7.7%)	<mark>12</mark> (5.3%)	<mark>6</mark> (9.5%)
coura node sehol A4(e	Agree	98 (37.4%)	78 (37.5%)	114 (50.4%)	31 (49.2%)
	Disagree	59 (22.5%)	44 (21.2%)	39 (17.3%)	8 (12.7%)
nion of End sing for n come hous (Question	Strongly Disagree	49 (18.7%)	48 (23.1%)	34 (15.0%)	10 (15.9%)
pinion o housing income (Ques	Not Sure	34 (13.0%)	22 (10.6%)	27 (11.9%)	8 (12.7%)
<u>o</u> -	No response to the question	stion 11 10 10 4			4
	Totals	273	218	236	67

The differences in opinion reflected in **Tables 3** and **4** indicate that Dexter Township must sustain a balanced inventory of housing that includes housing for moderate income households and smaller sized homes that are more affordable.

#### 3. Residential Development in Lake Areas

A significant portion of the township's households are situated around Portage, Silver, North, and Half Moon Lakes, where development densities of 2-6 dwellings or more per acre are common. Many of the lake areas were subdivided into very small parcels in the early 1900s for seasonal cottages. However, over the past several decades, much of this housing has been converted to year-round use. This conversion has created several problems for these areas, including sewage disposal, deteriorating roads, public safety, insufficient parking, increased lot coverage, inadequate building setbacks, and poor storm water management. Sewage disposal needs have largely been addressed by the installation of public sewer around all of the lake areas. However, the other problems remain.

The higher lot coverages and impervious surfaces in the lake areas have resulted in fewer pervious areas for storm water to naturally infiltrate into the soil. This has inevitably led to higher rates of storm water runoff in many areas. In the 2007 Dexter Township Community Survey 78.2% of all respondents (and 83.8% of the Lakes Residential District respondents) rated "Surface water quality (lakes, rivers, etc.) and storm water runoff" as a High Priority), and 81.8% of all respondents rated "Groundwater quality" as a High Priority.

Due to required setback distances and other zoning standards in the lake areas, variances are frequently requested to pursue residential additions. While variances are sometimes appropriate, many of the zoning ordinance standards in the LR District are necessary to protect the health, safety, and general welfare of the area. Given the development pressures in these areas, the standards should be reviewed regularly, and as better zoning techniques are discovered, these techniques should be adopted.

#### 4. Agriculture

Agriculture is the second leading industry in Michigan. Agriculture is also essential to the economic stability of Washtenaw County. According to the most recent 2007 Agricultural Census, Washtenaw County's total gross income from farm-related sources ranked 6th out of the 83 Michigan counties – up from 36<sup>th</sup> during the 1997 Agricultural Census and 11th during the 2002 Agricultural Census. Dexter Township has, historically, been a strong farming community. Today, considerable acreage in the central portions of the Township continues to be under agricultural use, relatively free from the intrusion of non-agricultural uses. There exists a demonstrated and increasingly critical need in Dexter Township, Washtenaw County, and the state for land devoted to agricultural use. Farm operations produce the food and fiber that our local communities and society rely on as well as the society of other countries. Furthermore, local farming preserves the heritage of Dexter Township and contributes to the desired community character and quality of life.

The concentration of agricultural operations on large lots and the relative absence of competing uses in the central portions of the Township make preservation of agricultural resources possible. The Township's current zoning regulations are intended to limit the amount of residential encroachment into important farmland areas through density limitations while also allowing lots to be as small as one (1) acre. This mechanism provides the farmer with an opportunity to generate increased income through the sale of residential lots while not requiring the farmer to convert unnecessary tillable acreage to accommodate a single residence.

Studies undertaken in 1995 by the Center for Urban Policy Research at Rutgers University (Dr. Robert Burchell, Fiscal Impacts of Alternative Land Development Patterns in Michigan) found that farmland and open space typically produce more revenue than the cost to provide such land with public services. The same findings were reached by the University of Michigan in a 1996 study of Scio Township in Washtenaw County and by LSL Planning, Inc. in a 2006 study of Delhi Charter Township in Ingham County.

Dexter Township's agricultural resources contribute to the critical mass necessary in the county to sustain the economic viability of farming in the county. Still, agricultural resources are being consumed at an alarming rate by residential development. Between 1990 and 2000, Washtenaw County alone lost 30,126 acres – about 13.6% – farmland. During that same time period, Dexter Township lost 915 acres – about 14.0%. In addition, competing land uses, particularly residential uses, are escalating land prices beyond the range of economic viability for farming.

Some of the most obvious threats to local agriculture are weak market prices, limited transportation options, suburbanization and steadily increasing taxes. While residential subdivisions pose a threat to agricultural land, a more pervasive threat is scattered single-family homes on large parcels. Long-term agricultural operations and operators cannot compete successfully with housing for the same land, or even for the same general area. The presence of only a few rural residences can adversely affect the stability of an agricultural area.

Land use policies and zoning provisions must recognize the importance of encouraging farmland resources preservation and sustaining opportunities for future farmland operations. In the Dexter Township Community Survey, 56.8% of respondents rated "Preservation of agricultural land" as a High Priority, 86.1% either Strongly Agreed or Agreed that Dexter Township should "protect agricultural activities," and 44.6% believed that the average lot sizes of "homes near existing agricultural areas" should be more than 5 acres.

#### 5. Natural Resources and Rural Character

Dexter Township has a variety of natural features – wooded areas, streams, lakes, wetlands, groundwater recharge areas, a varied topography, and a major river corridor. These features have important environmental benefits including wildlife habitats, flood control, air purification, and ground and surface water purification. These features contribute to the rich natural environment of the Township and, in association with other open spaces, contribute to the dominant rural character of the community that is so strongly desired. It is important that natural features be integrated into the development pattern so that these features and the community's rural character will be preserved.

Preservation of natural features and other fragile land, such as groundwater recharge areas, can be very difficult because the process of encroachment often occurs slowly. The impact at any one time may be and probably is minimal. Real damage to an entire ecosystem occurs over a long period of time in a slow but continual incremental manner. On the other hand, ecosystems and natural features can be devastated in less than a year's time by large-scale residential and nonresidential developments which reflect poor design features. All ecological systems are basically a web of natural features comprised of vegetation, animals and other systems that cross property lines and political boundaries. While these natural features may be owned by specific individuals or property owners they make up the interconnected natural environment in which animals and plants must live. Therefore, when projects are approved and buildings built, the quality should be sustainable not disposable, meaning that the built and the natural environment should complement and sustain one another for several hundred years rather than just 30 or 40 years.

Increased environmental knowledge, awareness, and education, when incorporated into a comprehensive planning strategy, can minimize the potential for environmental degradation. Protection and establishment of the interconnected system of natural/environmental areas, including lakes, wetlands, woodlands, steep slopes, groundwater recharge areas, river corridors, and open fields, will provide a diverse and viable habitat for wildlife and rare native plants.

It is important to note that low-density residential development does not by itself assure the protection of "rural character." Rural character – the perception of limited urban development and the existence of expansive open spaces of farmland and/or natural landscapes including woodlands, wetlands, and fields – is a function of the form of new development, not just the amount of new development. Accordingly, this Plan does not propose that the protection of rural character and natural resources mean the prohibition of future growth and development. Managed growth and development does not have to jeopardize the Township's overall rural character. Rather, the Township must constructively guide growth and development to assure its compatibility with the Township's existing natural resources and rural character.

Through the Open Space Communities (OSC) Overlay District in the Dexter Township Zoning Ordinance, Dexter Township provides incentives to encourage both small and large-scale development to pursue the preservation of the Township's rural character and natural features. This is accomplished through both site design measures and through density bonuses. Developments that employ effective measures to preserve the quality and quantity of on-site natural features can be encouraged through heightened development densities. Key factors that are considered in the awarding of higher development densities include the permanent protection of special natural features, the setting aside of permanent open spaces, the preserving the rural character of the Township's existing road corridors, the strategic placement of open space in relation to abutting open spaces and agricultural activities, the allowance of farming activities within the dedicated open space, and the design of storm water management systems that rely upon natural systems and preserves the quality and integrity of such systems.

In the Dexter Township Community Survey, the following were rated as a High Priority accordingly: "Groundwater quality" (81.8%), "Surface water quality (lakes, rivers, etc.) and storm water runoff" (78.2%, although 83.8% of the Lakes Residential District respondents rated it as a High Priority), "Protection of woodlands and large trees" (72.7%), "Preservation of natural undeveloped land" (69.2%), and "Protection of wetlands" (67.7%). Please refer to Planning Issue #3 on page 10 of this Plan regarding residential development issues and opinions that are unique to the lake areas.

#### 6. Transportation

The Michigan Planning Enabling Act requires a master plan to include "All components of a transportation system and their interconnectivity including streets and bridges, public transit, bicycle facilities, pedestrian ways, freight facilities and routes, port facilities, railroad facilities, and airports, to provide for the safe and efficient movement of people and goods in a manner that is appropriate to the context of the community and, as applicable, considers all legal users of the public right-of-way." This policy is more commonly known as "Complete Streets." Although some aspects of this policy are not applicable to Dexter Township (i.e., there are no port facilities, railroad lines, or airports in the Township), Dexter Township must plan for all applicable motorized and non-motorized modes of transportation. These modes, as well as Dexter Township's transportation policies, are discussed throughout this Plan.

#### 6A. Transportation: Motorized Transportation Network

A description of Dexter Township's road network is on pages 50-51 of this Plan. The future pattern of residential lot splits and subdivisions within Dexter Township have an important impact upon the rural character and safety of the Township's road corridors. A significant portion of residential development in the Township has resulted in a strip residential pattern – where residences are "stripped" along the county road network. This pattern of lot splits can be debilitating to the community because: 1) the increased number of driveways directly accessing the county roads increases the level of congestion and traffic hazards along these corridors; 2) travel times are increased; 3) the dispersed population pattern increases the cost, and decreases the quality, of public services; and 4) the Township's rich rural panoramic views of woodlands, fields, and other open spaces, as experienced from the roadway, can be reduced to images of never ending driveways, cars, garages, and front yards. The Township's zoning regulations allow for private roads and shared driveways that encourage a development pattern that does not negatively impact the effectiveness and character of the Township's roadway network.

The existing public roads in the Township (except local neighborhood roads) have higher traffic levels than 10 years ago, and will be expected to carry higher levels of traffic during the coming years as the Township continues to grow. Strip development along these roads, especially

access by driveways, should be limited. New subdivision roads accessing all Township roads should be planned for safe sight distance, proper acceleration and deceleration lane tapers and safe ingress and egress.

**Public Roads vs. Private Roads.** In recent years, Dexter Township has encouraged new residential developments to install private roads via its Private Road Ordinance. By installing private roads, the developer has reasonable design flexibility (at the discretion of the Township Board of Trustees) and the residents of the development – not the general public – are responsible for the maintenance of their roads.

In the Dexter Township Community Survey, 45.8% of respondents favored Public roads and 54.2% favored Private roads when asked, "What type of roads should Dexter Township encourage to service new residential development?" Respondents who were Dexter Township residents and lived on a Private Road were more likely to favor Private roads to service new residential development. Of the Dexter Township residents who currently live on a Private road, 60.4% of respondents favored Private roads to service new residential development. Of those who currently live on a Public road, 52.8% favored Private roads to service new development. Respondents were also asked why they favored the Public or Private roads. The major arguments in favor of Public roads were standardized construction, maintenance, and control from the Washtenaw County Road Commission (WCRC). The major arguments in favor of Private roads included private control, design flexibility, and new residents paying for their own roads. Likewise, the major arguments against both types of roads were:

- Control: The WCRC controls, and is responsible for, all of the primary, local, and public subdivision roads in Washtenaw County. Once the WCRC accepts a public subdivision road, it is not likely to cede control of it back to the residents. Although private roads are controlled by the local association of the residents, the residents often deal with competing personalities and interests of neighbors.
- Maintenance: Although free to the public road resident, the upkeep of public subdivision roads by the WCRC becomes more difficult as statewide and countywide road funding declines. This leads to all of the public subdivision roads in Washtenaw County competing for fewer resources. For private road residents, a majority of neighbors may either opt to ignore maintenance on the private road or approve

costly maintenance that will be passed on to all private road residents.

• **Design:** Public road residents must adhere to the rigid standards of the WCRC. And although private road residents are able to seek variances from Dexter Township's private road standards, such variances may lead to increased maintenance costs to private road residents in the long run.

**Paved Roads vs. Gravel Roads**. When asked which of the following actions would be <u>most appropriate</u> if a gravel road was deteriorating or showing signs of approaching capacity, respondents answered as follows:

- 43.3% favored maintaining current levels of residential development on that road and pave the road after it reaches capacity.
- 33.6% favored restricting further residential development on that road in order to prevent or postpone the need to pave the road.
- 23.1% favored maintaining current levels of residential development on that road and continue to grade and fill the road after it reaches capacity.

Each of these 3 actions has advantages and disadvantages, and neither is the overwhelming preference of survey respondents. However, responses differed based on what type of road the respondent lived on. Respondents who were Dexter Township residents and lived on a Paved Road were more likely to favor maintaining "current levels of residential on that road and pave the road after it reaches capacity" (48.9%) than those who lived on a Gravel Road (37.1%). Likewise, respondents who were Dexter Township residents and lived on a Paved Road were less likely to favor maintaining "current levels of residential development on that road and continue to grade and fill the road after it reaches capacity" (29.4%) than those who lived on a Gravel Road (37.4%). Respondents who were Dexter Township residents and lived on a Gravel Road were more likely to prefer their roads remain gravel.

When respondents were asked how they would most like to see residential growth occur on "Land accessed via a paved road," the plurality (46.5%) favored average lot sizes of "1-2 acres." When respondents were asked how they would most like to see residential growth occur on "Land accessed via a gravel road," only 23.5% favored

average lot sizes of "1-2 acres." The most favored average lot sizes for "Land accessed via a gravel road" were "2-5 acres" (33.9%) and "More than 5 acres" (35.8%). For "Land accessed via a paved road," the responses for "2-5 acres" (20.9%) and "More than 5 acres" (15.6%) were considerably lower. These percentages did not largely differ between respondents who were Dexter Township residents and lived on a Paved Road and those who lived on a Gravel Road. Finally, 17.0% of respondents favored "Average lot sizes less than 1 acre" along "Land accessed via a paved road" and only 6.8% favored "Average lot sizes less than 1 acre" along "Land accessed via a gravel road." Therefore, even though respondents favor higher densities along roads that are paved, an overwhelming majority do not favor "Average lot sizes less than 1 acre" solely on account of the road's surface.

Conclusions: As population increases, and more homes are built, an expanded and improved road network will be an important issue over the next several years. The most important resource needed to construct and maintain any road is money. In Michigan, both state and local governments continually struggle to raise the revenue needed to keep pace with the demands for road repair. The Michigan Transportation Fund (MTF) is the primary collection and distribution fund for state transportation revenues, and is the principal source of revenue for the WCRC. Since 2004, the WCRC's MTF revenue has decreased annually, and in 2009 it received about the same amount of MTF revenue as it received in 2000. The downward trend of WCRC's revenue contrasts with their 53% *increase* in their routine maintenance costs over this same time period. Without a long-term solution to remedy the shortfall between available resources and needed maintenance, our roads will continue to deteriorate.

As Dexter Township continues to grow, it should continually address the issue of road capacity and maintenance. In the Dexter Township Community Survey, 44.6% of respondents rated the "Quality of the township road system" as a High Priority as opposed to 9.2% of respondents that rated it as a Low Priority. Furthermore, 84.8% of respondents believed it was Very Important or Somewhat Important "for Dexter Township to cooperate with adjacent local units of government on...Road maintenance and upgrading:"

#### 6B. Transportation: Non-Motorized Transportation Network

According to the Washtenaw Area Transportation Study (WATS) *Non-Motorized Plan for Washtenaw County*, published in September 2006, there are no sidewalks, bicycle facilities, or 3-foot wide paved shoulders in Dexter Township. The only non-motorized infrastructure listed as a 2.68-mile off-road bicycle trail in the Hudson Mills Metropark (See **Table 22**). There are several non-motorized transportation needs (See **Table 23**) and deficiencies (See **Table 24**) in Dexter Township and the *Dexter Township Region*. The largest obstacle to expanding the non-motorized transportation infrastructure is available funding. Many sources of available funding are listed in the *Non-Motorized Plan for Washtenaw County*, and Dexter Township should take advantage of this funding when it is feasible to do so.

With the adoption of Complete Streets legislation, it is important for Dexter Township to plan for the appropriate interconnectivity of its current and future non-motorized and motorized transportation systems. WATS has initiated a regional planning process by organizing a Steering Committee of interested municipalities and agencies to draft and recommend Complete Streets policies via a countywide plan. Dexter Township is a member of the Steering Committee. One of Dexter Township's major goals in this planning process is to learn about the rural applications of the Complete Streets policies and where they are most appropriate in Dexter Township. For example purposes only, one rural application of Complete Streets is to add 3-foot wide paved bicycle lanes along each side of a highly traveled road. This not only allows bicyclers and pedestrians a safer means of travel, but it also allows an area for slower farm vehicles to temporarily pull off to when cars are trying to pass and the bicycle lane is vacant. As more information is learned regarding rural applications of Complete Streets, it will be included in this Plan in a subsequent amendment.

In the Dexter Township Community Survey, only 21.7% of respondents rated "Non-motorized trails (sidewalks, bicycle paths, natural hiking trails, designated bicycle lanes alongside roads)" as a High Priority. However, when respondents were asked to describe their preferences more specifically, there were some distinctions among the preferred types of non-motorized transportation. For example, while only 52.3% of respondents Strongly Encouraged or Encouraged "Wider gravel

shoulders along paved and gravel roads," 70.9% of respondents Strongly Encouraged or Encouraged "Designated paved bicycle lanes alongside paved roads." This indicates that paved non-motorized transportation alongside paved roads is preferable to gravel non-motorized transportation alongside any roads. At the same time, while only 30.2% of respondents Strongly Encouraged or Encouraged "Sidewalks," 75.1% of respondents Strongly Encouraged or Encouraged "Natural walking paths and trails."

#### 7. Commercial Development

Commercial uses can vary significantly in character, size and scale. Commercial development can address important needs of area residents, afford convenience in their daily patterns, and improve the economic stability of the Township. However, as commercial uses are of varying character, so are their impacts upon abutting land uses, the community as a whole, and neighboring municipalities.

Dexter Township has limited opportunities for commercial development. Constraints toward the establishment of such uses are significant, including a comparatively small local population, environmentally sensitive areas, the proximity of and competition from nearby urban centers (e.g. the Cities of Ann Arbor and Chelsea and the Villages of Dexter and Pinckney) and corridors (e.g. Jackson Road, M-36, and M-52), and the Township's interests in preserving the economic stability and vitality of these urban centers. These and other nearby urban centers address many of the day-to-day consumer needs of area residents as well as providing opportunities for comparative shopping and professional services. These communities possess the necessary infrastructure (roads, utilities, higher density residential areas, etc.) for intensive commercial development.

Dexter Township's existing zoning and development pattern suggests that the viable commercial uses in the Township are limited to those that are more locally-oriented. Therefore, it is important that future commercial development be accommodated in an incremental manner, with periodic reviews to determine the need and/or demand for additional expansion. The extent and manner in which Dexter Township accommodates future commercial development should minimize conflicts with abutting land uses and assuring such development is sensitive to the prevailing rural character through appropriate architectural design and building scale, building materials, parking locations and layout, signage, landscaping and buffering, and lighting.

The bulk of the Township's commercially-zoned land – 117.75 acres around the intersection of North Territorial Road and Dexter Pinckney Road (Dexter Township's busiest intersection) – is largely undeveloped. Given this, Dexter Township does not appear to have a demand for more commercially-zoned land. Furthermore, there is at best mixed public

support for new commercial development in Dexter Township. The following are some of the highlights regarding commercial development from the Community Survey:

- 41.0% of respondents either Strongly Agreed or Agreed that Dexter Township should "Encourage commercial development that serves the local population." About 48.6% of respondents either Strongly Disagreed or Disagreed with that statement.
- 71.5% of respondents believed that the number of commercial businesses is "About right for the size and character of the community."
- While 47.1% of respondents did not want to see new commercial growth in any area of the Township, 24.3% wanted to see new commercial growth located in the "Dexter-Pinckney/N. Territorial area."
- 47.1% of respondents "Don't want more retail/service establishments" in the Township. The highest rated retail/service establishments were "Restaurant" (15.6%) and "Food service/Produce/General store" (9.0%).
- While 59.8% of respondents would either Strongly Oppose or Oppose "a shopping center of 4-6 businesses located in the Township which is designed and constructed to serve the local population," 40.2% either Strongly Favored or Favored.
- While 43.9% of respondents believed that "In general, commercial development in the Township should be" Discouraged, 30.2% believed it should be "Encouraged with appropriate land use restrictions" and 23.2% believed that it should be "Allowed, but with many land use regulations."
- Although about 80% of land in Dexter Township that is currently zoned C-1 General Commercial (117.75 of 147.27 acres) is located around the intersection of North Territorial Road and Dexter-Pinckney Road, the survey responses regarding commercial land uses did not greatly differ based on the respondent's zip code.

#### 8. Industrial Development

Dexter Township historically has been an agricultural community, followed by high quality residential development. The Township also has a significant amount of public recreation land owned by the State of Michigan, the Huron-Clinton Metropolitan Authority, and the University of Michigan. The public land and the several large lakes that are located in the Township make it a very desirable place to live and raise a family.

The Township, while blessed with natural resources, has no class "A" roads, access to rail, or major expressway interchanges. Such a transportation system is one of the most important factors, if not the most important factor, in determining where major industrial uses choose to locate. Because Dexter Township does not have the transportation system needed to accommodate most industrial land uses, Dexter Township does not have a demand for them. Accordingly, the Dexter Township Zoning Ordinance does not have an Industrial Zoning district. Rather, the Zoning Ordinance allows for certain industrial uses in the General Commercial zoning district via special land use approval. This is not to say that an Industrial Zoning district would not be adopted in the future if the need arose and the infrastructure supported that need. However, Dexter Township's industrial policy is to encourage major industrial uses to locate in communities where the infrastructure exists, especially in surrounding communities' industrial parks.

#### 9. Sanitary Sewer Service

Public sewer service was introduced to the Portage and Base-Line Lake area in 1991 (Portage-Base Lake Sewer Authority), and to Silver, North, and Half Moon Lakes in 1996 (Multi-Lakes Water and Sewer Authority). The purpose of each was to discontinue the use of septic tanks around the lakes and in turn protect the integrity of wells and restore the ecosystem of the lakes.

The Portage-Base Lake Sewer Authority is the agency that provides sewer service to the high density residential areas around Portage and Base Line Lakes in Dexter, Putnam, and Hamburg Townships, and operates a treatment facility in Dexter Township on Stinchfield Woods Road. This facility has very limited available capacity for additional service.

The Multi-Lakes Water and Sewer Authority (MLWSA) is the agency that provides sewer service to the high density residential areas around Silver, North and Half Moon Lakes in Dexter, Lyndon, Putnam, and Unadilla Townships, and operates a treatment facility in Dexter Township on the north side of North Territorial Road near Madden Road.

While the MLWSA was originally created to service only the high density residential areas around the lakes, the current plant capacity exceeds the capacity needed to service the areas of need in Dexter Township. As a result, fewer users have been paying for unused capacity. To offset the financial shortfall and maximize the use of the plant, Dexter Township has allowed residential developments in the non-lake areas to connect to the Multi-Lakes system. Dexter Township allowed this connection based on all the following:

- Any and all costs associated with extending and connecting the sewer line was paid by the developer;
- Access to sanitary sewer <u>did not</u> result in unplanned growth or higher residential densities than would have otherwise been achieved by the Zoning Ordinance, with individual septic systems or a cluster drain field;
- Access to sanitary sewer promoted better groundwater quality and more environmentally friendly site design; and
- The sewer system had additional residential equivalency unit (REU) capacity that did not lower or jeopardized connection opportunities in the lake areas or create the need for additional capacity at the current sewer plant.

Previously, Dexter Township discouraged expanding sewer service to residential developments in the non-lake areas because it feared that expansion of the sewer service area would jeopardize the availability of needed service to the lake residential areas and serve as a catalyst for unplanned growth area or heightened development densities. However, by adhering to the conditions previously described for such developments these problems have been avoided. Furthermore, the benefits associated with improved groundwater quality and more environmentally friendly site design have outweighed many of the previous concerns.

A newer form of sanitary sewer service which is a privately-owned community septic system (POCSS), which is a sewage system serving 2 or more residential dwellings or commercial establishments under separate ownership. These systems are advantageous in areas that do not have access to sanitary sewer service nor have adequate soils to support individual septic systems. Currently, Dexter Township allows these systems but does not have specific regulations for them. However, in 2007 Washtenaw County adopted countywide regulations for POCSS. These regulations include provisions for approval, design, construction, management, operation, maintenance, inspection, and enforcement. The county regulations do not allow a POCSS where sanitary sewer service is available, require them to comply with local zoning standards, and allow local governments to adopt their own POCSS regulations. The county regulations also empower the Health Officer to establish procedures and guidelines, including design and construction requirements, operating permit conditions, compliance schedules, financial assurance requirements, assumption of operation upon failure to perform, notification requirements when individual properties transfer ownership, and other mechanisms deemed necessary to assure compliance with the regulations. To date, Dexter Township has approved one POCSS to serve 54 proposed single-family homes. The POCSS and the residential development were not constructed and have since expired.

In the Dexter Township Community Survey, 57.7% of respondents rated "Expansion of the public sewer systems" as a Low Priority and 57.0% either Strongly Disagreed or Disagreed that Dexter Township should "Encourage higher density residential development in areas where municipal sewer service is available." At the same time, when asked,

"What type of sanitary waste service should Dexter Township encourage for <u>new</u> residential development," a plurality of respondents (39.5%) preferred "Public sanitary sewer, as long as it does not promote higher densities or more intense land uses." Fewer respondents favored "Individual septic systems on each lot" (32.6%) or "Private community septic systems where each development has its own plant and privately maintains it" (27.9%). Responses to this question differed based on what type of sanitary service the respondent had. Respondents who were Dexter Township residents and had sanitary sewer service were more likely to favor "Public sanitary sewer..." for "<u>new</u> residential development" (60.1%) than those who had septic service (29.5%). Conversely, respondents who were Dexter Township residents and had septic service were more likely to favor "Individual septic systems..." for "<u>new</u> residential development" (42.4%) than those who had sanitary sewer service (11.3%).

When asked if "Dexter Township should allow <u>existing</u> homes that currently have septic systems to connect to the sanitary sewer system in the future," 79.0% of respondents answered "Yes." Responses to this question also differed based on what type of sanitary service the respondent had. Respondents who were Dexter Township residents and had sanitary sewer service were more likely to respond "Yes" to this question (86.6%) than those who had septic service (75.5%). Still a vast majority of respondents favor allowing existing homes that currently have septic systems to connect to the sanitary sewer system.

Finally, on the topic of intergovernmental cooperation, 70.4% of respondents thought that it was Very Important or Somewhat Important "for Dexter Township to cooperate with adjacent local units of government" on "Sewage treatment."

#### 10. Solid Waste Management

Currently, Dexter Township operates as a subscription-based system, meaning that individual residents are responsible for selecting their own solid waste hauler. Services typically include trash and, in some cases, recycling. The main benefit of the subscription-based system is that individual residents get to choose their garbage hauler. However, this system increases costs in two areas: First, residents pay retail rates under the subscription-based system. According to the Residential Solid Waste Profile & Assessment Report of the Washtenaw County Department of Economic Development and Environment Solid Waste Program in 2005, the average cost of a subscription-based system was between 35% - 50% higher than a preferred hauler system. And second, with several garbage haulers operating throughout the township, the added number of these vehicle trips and associated weights accelerate the deterioration of our roads. A preferred hauler system is a system where the municipality establishes a service agreement with a private sector contractor to provide trash, recycling, and yard waste collection services. As described in the Residential Solid Waste Profile & Assessment Report, this service agreement is non-exclusive and voluntary to residents.

Dexter Township, along with 7 other municipalities, is a member of the Western Washtenaw Recycling Authority (WWRA), which is a public recycling program that consists of drop-off recycling centers throughout the area. The WWRA is funded by a special assessment from each participating municipality. Dexter Township's special assessment covers drop-off service only (curbside pickup is not included), and its drop-off center is located at Dexter Township Hall on Dexter-Pinckney Road.

In the Dexter Township Community Survey, 69.6% of respondents rated "Coordinated township garbage pick-up" as a Low Priority, and 67.8% thought that it was Not Very Important or Not At All Important for Dexter Township to cooperate with adjacent local units of government on "Coordinated garbage pickup service." At the same time, 59.3% of respondents supported a "coordinated garbage pickup service throughout the township, where a preferred hauler is selected and residents have the option of enrolling at a discounted rate." However, if the township were to use a preferred hauler for garbage pickup service in the future, only 23.7% of respondents supported including the fees on the property tax bills.

#### 11. Regional Planning & Intergovernmental Cooperation

It has become increasingly important that the planning policies of all surrounding municipalities be coordinated. Dexter Township exists within a regional network of communities, none of which are islands unto themselves. The past development of Dexter Township has undoubtedly affected the surrounding area in several ways. Likewise, the past development of the surrounding area has affected Dexter Township. Therefore, as Dexter Township and the surrounding area develop in the future, it is important to evaluate these relationships from a regional perspective.

Dexter Township, along with the City of Chelsea and Lima, Lyndon, and Sylvan Townships, is part of the Chelsea Area Planning Team (CAPT). Dexter Township is also part of the Dexter Area Planning Team (DART) with the Village of Dexter and Lima, Scio, and Webster Townships. One example of the regional planning efforts of CAPT is the draft Chelsea Area Regional Plan. This document was drafted to address planning issues in the CAPT region. Following is a key excerpt from the Chelsea Area Regional Plan, and it applies to regional planning efforts beyond the CAPT region:

A regional plan serves as a guide for communities to reference when planning for their communities. Together communities assess the land use needs of the entire region, and designate land uses in areas most appropriate with regard to available public services, jobs, and natural resources — regardless of political boundaries. The recommended goals and strategies then provide a resource that local units can consult when facing land use decisions that will impact their neighbors.

Chelsea Area Regional Plan, page 1

Consistent with this concept of regional planning, the Dexter Township Master Plan considers the impacts of regional development on Dexter Township, and the regional impact of the goals, policies, and objectives herein. This will enable Dexter Township to better formulate its own goals, policies, and objectives, but with an eye towards regional impact and influences. By formulating its own future development and land use goals, policies, and objectives from a regional perspective, Dexter

Township will hopefully encourage surrounding municipalities to also do so when formulating their own goals, policies, and objectives. By cooperatively pursuing common goals in areas of land use and public services, all communities in the region can greatly benefit one another.

In the Dexter Township Community Survey, the following percentages of respondents thought that it was Very Important or Somewhat Important "for Dexter Township to cooperate with adjacent local units of government on the following issues:" "Police protection" (92.6%), "Fire protection" (96.0%), "Planning, zoning, and land use" (84.6%), "Sewage treatment" (70.4%), and "Road maintenance and upgrading" (84.8%). In addition to Dexter Township's participation with CAPT/DART, Dexter Township continually participates with regional municipalities for police protection, fire protection, transportation planning (WATS), recycling, and sewage treatment.

#### 13. Recreation

Dexter Township's abundance of recreational land and uses makes it an extremely popular destination for Dexter Township residents and non-residents alike. This recreational land, shown in **Maps 23** and **24**, includes the Hudson Mills Metropark, the Hudson Mills Golf Course, the Pinckney State Recreation Area, the University of Michigan Observatory at Peach Mountain, and three non-profit campgrounds. In addition, there are several privately-owned recreational areas, such as the Inverness Country Club golf course, the Ann Arbor Moose Lodge, and all open space land in Dexter Township's Open Space Communities residential areas.

Although only 10.5% of respondents in the Dexter Township Community Survey rated "Additional outdoor recreational opportunities" as a High Priority, it is the intent of this Master Plan to preserve the integrity of *current* recreational assets in Dexter Township and encourage additional recreational opportunities where such opportunities preserve and improve the rural character of Dexter Township. One example of a proposed recreational area that will preserve and improve the rural character of Dexter Township is a 195-acre Washtenaw County nature preserve, located directly south of West Lake.

#### 14. Hazard Mitigation

The process of emergency management involves four phases in the following order: *Mitigation, Preparedness, Response*, and *Recovery*. The emergency management process follows this order in a continuous circular form, with *Mitigation* following *Recovery* and so forth. *Preparedness, Response*, and *Recovery* happen right before, during, and immediately after a disaster, respectively. These three phases heavily involve first responders (e.g., police, fire, ambulance, etc.), and community planners and planning commissions are limited in what they can do to affect outcomes during these three phases. *Mitigation*, on the other hand, is what happens beforehand to either prevent the loss of human life and/or property from happening or to minimize the loss once a disaster occurs. Hazard mitigation, like this Master Plan, focuses on what will happen long-term. As such, it is essential to establish and maintain the link between community planning and hazard mitigation.

In 2004, the Dexter Township Board of Trustees adopted the Dexter Township Hazard Mitigation Plan. The Hazard Mitigation Plan was prepared by Washtenaw County in conjunction with the Washtenaw County Hazard Mitigation Plan. The three purposes of Dexter Township's Hazard Mitigation Plan are to: 1) identify and rank hazards in Dexter Township; 2) analyze areas particularly vulnerable to hazards; and 3) identify feasible mitigation strategies that can be acted upon. The highest ranking hazards in Dexter Township were convective weather (severe winds, tornadoes, lighting, hail), fire hazards (wildfires and structural fires), severe winter weather hazards (snow storms and ice/sleet storms), flood hazards (river/urban flooding and dam failures), hazardous material incidents (transportation and fixed site), petroleum and natural gas accidents, public health emergencies, and transportation accidents (air, land, and water). Although the mitigation strategies for Dexter Township depended on the type of hazard, most mitigation strategies included educating the public, installing warning sirens, proper training of first responders, installing emergency generators at the Township Hall and Police and Fire Stations, and keeping power lines clear of trees and tree limbs.

The Hazard Mitigation Plan also recommends that its goals and strategies be incorporated into the Dexter Township Master Plan.

#### **Community Survey Results**

In June 2007, Dexter Township distributed surveys to all of the property owners in Dexter Township. The purpose of this survey was to assist the Dexter Township Planning Commission in preparing a new Master Plan to guide future growth and development in the Township. The Dexter Township Planning Commission and Township Board of Trustees asked that residents and business owners participate in the development of the Master Plan by completing the survey. The survey results will assist us when making decisions on many issues that affect quality of life in the Township, such as open space preservation, agriculture, housing, business, parks, zoning, transportation, utilities, and others.

Dexter Township mailed **2,720** surveys to all Township property owners. There were **857** surveys returned – a response rate of **31.5**%. The response rates by zoning district were 33.1% in the Agriculture District, 30.0% in the Lakes Residential District, and 32.1% in all other zoning districts (Rural Residential, Commercial, and Recreation Conservation). The results of the survey are highlighted. Because some survey questions were answered with no response or incorrectly with multiple responses where only a single response was requested, the total numbers and percentages are based only on the number of single responses to questions.

#### **Section A: General Development Plan Topics**

A1: How should the following concerns be prioritized in the Dexter Township General Development Plan? (Please check the box next to each concern that best describes your opinion)

	Low Priority	Moderate Priority	High Priority	Would support
				additional taxes?
a) Preservation of agricultural land	95 (11.4%)	<b>266</b> ( <b>31.9</b> %)	474 (56.8%)	<b>161</b> ( <b>19.3</b> %)
b) Preservation of natural undeveloped land	58 (6.9%)	201 (23.9%)	581 (69.2%)	241 (28.7%)
c) Protection of wetlands (swamps, marshes, bogs, swales, etc.)	<b>79</b> ( <b>9.4</b> %)	192 (22.9%)	568 (67.7%)	196 (23.4%)
d) Protection of woodlands and large trees	46 (5.5%)	182 (21.8%)	606 (72.7%)	188 (22.5%)
e) Surface water quality (lakes, rivers, etc.) and storm water runoff	26 (3.1%)	157 (18.7%)	657 (78.2%)	198 (23.6%)
f) Groundwater quality	10 (1.2%)	142 (17.0%)	685 (81.8%)	198 (23.7%)
g) Storm water runoff	95 (11.6%)	377 (45.9%)	350 (42.6%)	65 (7.9%)
h) Quality of the township road system	77 (9.2%)	387 (46.2%)	374 (44.6%)	125 (14.9%)
i) Traffic management	133 (16.0%)	421 (50.7%)	277 (33.3%)	81 (9.7%)
j) Police protection	86 (10.2%)	327 (38.7%)	431 (51.1%)	239 (28.3%)
k) Fire protection	50 (5.9%)	280 (33.3%)	512 (60.8%)	247 (29.3%)
1) Expansion of the public sewer systems	480 (57.7%)	264 (31.7%)	88 (10.6%)	51 (6.1%)
m) Coordinated township garbage pick-up	579 (69.6%)	185 (22.2%)	68 (8.2%)	44 (5.3%)
n) Additional outdoor recreational opportunities	496 (59.9%)	245 (29.6%)	87 (10.5%)	43 (5.2%)
o) Non-motorized trails (sidewalks, bicycle paths, natural hiking				
trails, designated bicycle lanes alongside roads)	350 (41.8%)	306 (36.5%)	182 (21.7%)	115 (13.7%)
p) Management of growth	71 (8.5%)	214 (25.6%)	550 (65.9%)	95 (11.4%)

A2: Which of the issues listed above would you support additional taxes for? (Please list the letters that correspond to those items above):

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DEC	rame	Above	101 1	results.

A3: Please list any issues that are not listed above that you feel should be a high priority.

See Survey Forms for Individual Results

A4: The Dexter Township General Development Plan will include goal statements regarding the future growth and development of the township. More specific objectives will be generated from these goals. Please indicate if you strongly agree, agree, disagree, strongly disagree, or are not sure about the following goal statements: (Please check the box next to each goal statement that best describes your opinion)

	<b>Strongly Agree</b>	Agree	Disagree	Strongly Disagree	Not Sure
a) Protect agricultural activities	366 (44.4%)	344 (41.7%)	47 (5.7%)	21 (2.5%)	46 (5.6%)
b) Encourage road connections between neighboring developments	48 (5.9%)	207 (25.2%)	243 (29.6%)	167 (20.4%)	155 (18.9%)
c) Provide a low density, rural atmosphere	432 (52.7%)	262 (32.0%)	54 (6.6%)	28 (3.4%)	44 (5.4%)
d) Provide a variety of housing alternatives	47 (5.7%)	258 (31.3%)	234 (28.4%)	195 (23.7%)	90 (10.9%)
e) Encourage housing for moderate income households	61 (7.5%)	345 (42.2%)	166 (20.3%)	<b>151</b> ( <b>18.5</b> %)	94 (11.5%)
f) Encourage higher density residential development in areas where					
municipal sewer service is available	66 (8.0%)	199 (24.2%)	197 (23.9%)	280 (34.0%)	82 (10.0%)
g) Encourage commercial development that serves the local population	83 (10.0%)	258 (31.0%)	188 (22.6%)	216 (26.0%)	87 (10.5%)

#### **Section B: Opinion on Residential Growth**

B1: Looking back on the last 10 years, how do you feel about residential growth in Dexter Township?

Much too fast: 323 (40.4%) A little too fast: 265 (33.1%) About right: 197 (24.6%) Too slow: 15 (1.9%)

B2: Since 2000, there have been approximately 400 new homes built in Dexter Township. Most of these new homes have been single family homes on large lots or in subdivisions. If Dexter Township continues to grow, please indicate whether you would strongly encourage, encourage, discourage, strongly discourage, or are not sure about the following housing types: (Please check the box next to each housing type that best describes your position)

	Strongly Encourage	Encourage	Discourage	<b>Strongly Discourage</b>	Not Sure
a) Large lot, single family residential homes	272 (33.4%)	339 (41.6%)	102 (12.5%)	56 (6.9%)	46 (5.6%)
b) Subdivisions, with no common open space preserved	15 (1.8%)	34 (4.2%)	331 (40.7%)	407 (50.1%)	26 (3.2%)
c) Subdivisions, with some common open space preserved	107 (13.0%)	403 (49.0%)	150 (18.2%)	129 (15.7%)	34 (4.1%)
d) Smaller sized homes that are more affordable	87 (10.7%)	327 (40.2%)	162 (19.9%)	145 (17.8%)	92 (11.3%)
e) Duplexes (i.e. a house with 2 dwelling units)	19 (2.3%)	91 (11.2%)	295 (36.3%)	340 (41.8%)	68 (8.4%)
f) Attached single family dwelling units (townhouses, etc.)	19 (2.3%)	150 (18.4%)	256 (31.4%)	292 (35.9%)	97 (11.9%)
g) Apartments	9 (1.1%)	74 (9.1%)	282 (34.8%)	386 (47.6%)	60 (7.4%)
h) Specialized housing for seniors or those with special needs	104 (12.7%)	387 (47.1%)	103 (12.5%)	124 (15.1%)	103 (12.5%)
i) Manufactured housing park	10 (1.2%)	19 (2.3%)	132 (15.9%)	634 (76.4%)	35 (4.2%)
j) Mixed use residential communities (single family, multiple					
family, and perhaps commercial mixed in one development)	35 (4.3%)	140 (17.0%)	202 (24.5%)	330 (40.1%)	116 (14.1%)

B3: In general, how would you most like to see residential growth occur in the following areas of Dexter Township in the future? (<u>Please check the box next to each area that best describes your opinion</u>)

	Average lot sizes	Average lot sizes	Average lot sizes	Average lot sizes
	more than 5 acres	2-5 acres	1-2 acres	less than 1 acre
a) Land accessed via a paved road	117 (15.6%)	157 (20.9%)	350 (46.5%)	128 (17.0%)
b) Land accessed via gravel road	263 (35.8%)	249 (33.9%)	173 (23.5%)	50 (6.8%)
c) Near existing agricultural areas	329 (44.6%)	190 (25.8%)	165 (22.4%)	53 (7.2%)
d) On or near the waterfront/lakes	111 (14.9%)	69 (9.3%)	240 (32.3%)	324 (43.5%)

B4: Please indicate whether you would strongly encourage, encourage, discourage, strongly discourage, or are not sure about the following types of non-motorized transportation in Dexter Township: (Please check the box next to each type that best describes your position)

	<b>Strongly Encourage</b>	Encourage	Discourage	<b>Strongly Discourage</b>	Not Sure
a) Designated paved bicycle lanes alongside paved roads	328 (39.3%)	264 (31.6%)	102 (12.2%)	117 (14.0%)	24 (2.9%)
b) Wider gravel shoulders along paved and gravel roads	112 (13.5%)	321 (38.8%)	196 (23.7%)	96 (11.6%)	103 (12.4%)
c) Sidewalks	72 (8.7%)	178 (21.5%)	266 (32.1%)	216 (26.1%)	96 (11.6%)
d) Natural walking paths and trails	268 (32.1%)	359 (43.0%)	87 (10.4%)	74 (8.9%)	46 (5.5%)

#### <u>Section C: Opinions on Commercial Growth</u> (*Please check only one box for questions C1 – C5*)

#### C1: Which best describes how you view the number of commercial businesses in the Township?

Not enough: 147 (18.0%) About right for the size and character of the community: 585 (71.5%) Too much: 86 (10.5%)

#### C2: Where would you most like to see new commercial growth located?

Dexter-Pinckney/N. Territorial area: 208 (24.3%) Dexter-Pinckney, northwest of McGregor Rd.: 19 (2.2%) McGregor Rd.: 10 (1.2%)

N. Territorial/Stofer area: 32 (3.7%) Other: 20 (2.3%) Don't want more commercial growth: 474 (55.3%) \*No Response or Multiple Responses: 94 (11.0%)

#### C3: What type of new retail/service establishments would you most like to see in Dexter Township?

Food service/Produce/General store: 77 (9.0%)

Gas station/Mechanic service: 16 (1.9%)

Restaurant: 134 (15.6%)

Other: 21 (2.5%)

Professional office/Health care office: 32 (3.7%)

Don't want more retail/service establishments: 404 (47.1%)

\*No Response or Multiple Responses: 173 (20.2%)

C4: Which best describes how you feel about a shopping center of 4-6 businesses located in the Township which is designed and constructed to serve the local population?

Strongly favor: **107** (**12.9**%) Somewhat favor: **227** (**27.3**%) Somewhat opposed: **181** (**21.8**%) Strongly opposed: **315** (**38.0**%)

#### C5: In general, commercial development in the Township should be:

Highly promoted with few land use restrictions: 22 (2.6%) Encouraged with appropriate land use regulations: 251 (30.2%)

Allowed, but with many land use regulations: 194 (23.2%) Discouraged 365 (43.9%)

#### Section D: Opinions on Infrastructure and Services (Please check only one box for questions D1 – D6)

D1: What type of roads should Dexter Township encourage to service new residential development? Public roads: 312 (45.8%) Private roads: 369 (54.2%)

**D2:** If a gravel road was deteriorating or showing signs of approaching its capacity, which of the following actions would be <u>most appropriate</u>?

- Restrict further residential development on that road in order to prevent or postpone the need to pave the road: 267 (33.6%)
- Maintain current levels of residential development on that road and continue to grade and fill the road after it reaches its capacity: 184 (23.1%)
- Maintain current levels of residential development on that road and pave the road after it reaches capacity: 344 (43.3%)

**D3:** What type of sanitary waste service should Dexter Township encourage for <u>new</u> residential developments?

- Individual septic systems on each lot: 255 (32.6%)
- Private community septic systems where each development has its own plant and privately maintains it: 218 (27.9%)
- Public sanitary sewer, as long as it does not promote higher densities or more intense land uses: 309 (39.5%)

**D4:** Should Dexter Township allow *existing* homes that currently have septic systems to connect to the sanitary sewer system in the future? Yes: **621** (**79.0%**) No: **165** (**21.0%**)

**D5:** Would you support coordinated garbage pickup service throughout the township, where a preferred hauler is selected and residents have the option of enrolling at a discounted rate? Yes: **483** (**59.3**%) No: 331 (40.7%)

**D6:** If the township were to use a preferred hauler for garbage pickup service in the future, should the fees for garbage pickup be included on the property tax bill? Yes: **194** (**23.7**%) No: **624** (**76.3**%)

D7: How important do you think it is for Dexter Township to cooperate with adjacent local units of government on the following issues? (Please check the box next to each item that best describes your opinion)

	Very Important	<b>Somewhat Important</b>	Not Very Important	Not At All Important	Not Sure
a) Police protection	609 (73.4%)	159 (19.2%)	30 (3.6%)	22 (2.7%)	10 (1.2%)
b) Fire protection	668 (80.3%)	131 (15.7%)	16 (1.9%)	11 (1.3%)	6 (0.7%)
c) Coordinated garbage pickup service	82 (9.9%)	169 (20.5%)	265 (32.1%)	295 (35.7%)	15 (1.8%)
d) Planning, zoning, and land use	387 (47.1%)	308 (37.5%)	70 (8.5%)	45 (5.5%)	12 (1.5%)
e) Sewage treatment	263 (32.0%)	315 (38.4%)	130 (15.8%)	87 (10.6%)	26 (3.2%)
f) Road maintenance and upgrading	374 (45.0%)	331 (39.8%)	79 (9.5%)	38 (4.6%)	10 (1.2%)

<b>Section E: General Informatio</b>	n				
E1: Do you live in Dexter Township?	Yes: <b>796</b> ( <b>93.9</b> %)	No: <b>51</b> ( <b>6.1</b> %)			
<b>E2:</b> What zip code do you live in?	48130: <b>366</b> ( <b>43.5</b> %)	48169: <b>163</b> ( <b>19.4</b> %)	48137: <b>113 (13.4%</b> )	48118: <b>172 (20.4</b>	%) Other: <b>28</b> ( <b>3.3</b> %)
<b>E3:</b> What school district do you live in?	Dexter: 415 (49.5%)	Chelsea: 307 (36.6%)	Pinckney: <b>76</b> ( <b>9.1</b> %)	Other: 22 (2.6%)	Not Sure: 19 (2.3%)
<b>E4:</b> How many members in your house	ehold? 1: <b>83 (9.9%</b> )	2: <b>418</b> ( <b>49.9</b> %)	3: <b>135(16.1%</b> )	4-5: <b>185</b> ( <b>22.1</b> %)	6 or more: <b>17 (2.0%)</b>
E5: How long have you lived in Dexter T	'ownship? 1-10 years:	<b>273</b> ( <b>32.5</b> %) 11-20 y	ears: <b>218 (25.8%</b> )	-40 years: <b>236 (28.0%)</b>	41 years or more: <b>67</b> ( <b>7.9</b> %)
*Not Applicable (i.e. Not a Resident):	49 (5.8%)				
<b>E6:</b> Which area best describes where y	ou live? On/near a lak	te: <b>257</b> ( <b>30.6</b> %)	In a subdivision: 207 (24.7	(%) On a farm: 4:	5 (5.4%)
On a residential, non-subdivision lot: 2	81 (33.5%) * <u>Not Applica</u>	<u>ıble (i.e. Not a Resident)</u> :	49 (5.8%)		
E7: On what size parcel do you live?	Less than 1 acre: 184 (21.9	9%) 1-2 acres: <b>344</b>	<b>(40.9%)</b> 2.01 – 4.99	acres: 127 (15.1%)	5-10 acres: <b>64</b> ( <b>7.6</b> %)
More than 10 acres: <b>74</b> ( <b>8.8</b> %)	* <u>Not Applicable (i.e. Not a</u>	<u>a Resident)</u> : 49 (5.8%)			
E8: Is any part of your land commercia	ally farmed? Yes: 3	4 (4.0%) No: 807(9	96.0%)		
If you is your land formed by you or so	amahady alsa? Mysal	f. 1 (12 80%) Comph.	ody also: 25 (86.2%)		

If yes, is your land farmed by you or somebody else? Myself: **4** (**13.8**%) Somebody else: **25** (**86.2**%)

If your land is farmed, how many acres are farmed? Under 50 acres: 21 (67.7%) 50-100 acres: **7 (22.6%)** Over 100 acres: 3 (9.7%)

**E9:** Please check the reasons you chose to live or continue to live in Dexter Township – (*check all that apply*)

Ouality of Schools: **339 (40.8%)** Close to Work: **161** (**19.4**%) Affordable Housing: 110 (13.2%) Close to Family and/or Friends: 216 (26.0%) Close to Lakes/Water: **411** (**49.5**%) Community Atmosphere: 260 (31.3%) Rural/Country Living: **648** (**78.0**%) Other: **70** (**8.4**%)

E10: Now, please circle the answer in question E9 that is the most important reason you live in Dexter Township

Close to Work: **18 (2.4%)** Quality of Schools: 51 (6.9%) Affordable Housing: 13 (1.8%) Close to Family and/or Friends: **69 (9.4%)** Community Atmosphere: 36 (4.9%) Rural/Country Living: 370 (50.3%) Close to Lakes/Water: **155** (**21.1%**) Other: 23 (3.1%)

**E11:** What type of road do you live on? Public road: **562** (**68.7**%) Private road: **256** (**31.3**%)

**E12:** What type of surface is the road that you live on? Paved: **391** (**47.7**%) Gravel: **428** (**52.3**%)

**E13:** What type of sanitary waste disposal does your residence have? Septic: **569** (**68.9**%) Sewer: **257** (**31.1**%)

**E14:** Do you recycle? Yes: 748 (89.7%) No: 86 (10.3%)

If yes, do you use the drop off bins located at Dexter Township Hall? Yes: 544 (73.6%) No: 195 (26.4%)

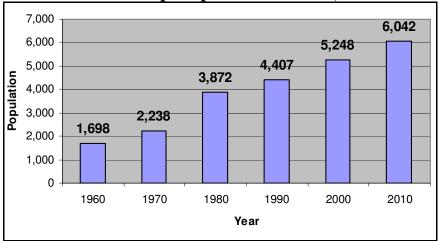
## **Chapter 4: Social Characteristics**

#### **Population Demographics**

#### Number of Current Residents

Dexter Township has steadily grown in population over the past several decades, from 1,698 in 1960 to 6,042 in 2010 (See **Chart 1**). This growth is largely attributed to new subdivisions, new construction as a result of land divisions, and the conversion of houses in the lake areas from part-time cottages to full-time single family homes.

Chart 1: Dexter Twp. Population Growth, 1960-2010



Sources: U.S. Census, SEMCOG, and Washtenaw County Department of Economic Development and Environment

From 1960-2010, there have been 56,904 new residents in the *Dexter Township Region*, 4,344 (7.63%) of which are in Dexter Township (See **Table 5**). Most of the new growth in the *Dexter Township Region* has occurred in Hamburg and Scio Townships. The growth in these townships is largely due to their location. Hamburg Township, which is the most populous township in Livingston County, has a large number of developing lakes, the M-36 corridor, and is in close proximity to US-23. Scio Township is bisected by I-94 and borders the City of Ann Arbor and the Village of Dexter.

Table 5: Dexter Twp. Region Population Growth, 1960-2010

Community	1960	1970	1980	1990	2000	2010	Population Change (#) 1960-2010	% Share of "Region" Growth 1960-2010
Dexter Twp.	1,698	2,238	3,872	4,407	5,248	6,042	4,344	7.63%
Chelsea	3,355	3,858	3,816	3,772	4,398	4,944	1,589	2.79%
Dexter Village	1,702	1,729	1,524	1,497	2,338	4,067	2,365	4.16%
Hamburg	3,189	5,481	11,318	13,083	20,627	21,165	17,976	31.59%
Lima	995	1,281	2,124	2,132	2,517	3,307	2,312	4.06%
Lyndon	1,037	1,373	2,057	2,228	2,728	2,720	1,683	2.96%
Pinckney	732	921	1,390	1,603	2,141	2,427	1,695	2.98%
Putnam	1,471	2,433	4,253	4,580	5,359	5,821	4,350	7.64%
Scio	4,454	5,501	6,505	9,578	13,421	16,470	12,016	21.12%
Sylvan	1,451	1,642	2,128	2,508	2,734	2,833	1,382	2.43%
Unadilla	1,216	1,793	2,874	2,949	3,190	3,366	2,150	3.78%
Webster	1,286	1,981	2,760	3,235	5,198	6,328	5,042	8.86%
Totals	22,586	30,231	44,621	51,572	69,899	79,490	56,904	100.00%

Sources: U.S. Census, SEMCOG, Washtenaw County Department of Economic Development and Environment, and Livingston County Department of Planning

One of the major reasons Dexter Township's population has not grown as fast as Hamburg and Scio Townships is because of transportation access. Unlike Hamburg and Scio Townships, Dexter Township does not contain any state or federal highways.

#### Estimated Number of Future Residents

In addition to the current population of Dexter Township, this Plan seeks to address the future needs of current and future residents. Therefore, it is important to reasonably estimate what that population will be. In April 2008, SEMCOG published a 2035 population forecast for each local unit of government in Region 1. The "2035 Forecast for Southeast Michigan" can be accessed at <a href="http://www.semcog.org">http://www.semcog.org</a>, and its methodology is described in the introduction of the report. However, the release of the 2010 Census results has shown much of this forecasting to be obsolete. As SEMCOG updates its population forecasts in the future, subsequent amendments to this Plan will include these updated forecasts.

SEMCOG predicts the population of Dexter Township to be **6,440** in **2035** – an increase of 398 residents (6.59%) from 2010-2035. The *Dexter Township Region* is expected to grow by 11,037 residents from 2010-2035 (See **Table 6**). This anticipated growth is far less than the rates of growth the *Dexter Township Region* has experienced over the last several decades. The executive summary of the "2035 Forecast for Southeast Michigan" attributes this occurrence to the regional economy of southeast Michigan. "The region is currently experiencing an extended period of decline in jobs and population, led by significant decreases of manufacturing jobs and increasing out-migration of working age population...At the community level, the forecasts show many communities will experience very low population and household increases; some will experience losses. Few communities will experience the robust growth of the past." I

An alternative method of projecting future population growth is to take known past rates of growth and extrapolate those rates into the future. For example, if Dexter Township grows at the rate it did from 1980-1990 (the slowest decade of growth since 1940), it would grow at a rate of 13.8% per decade. Using Dexter Township's population in 2010 (6,042), if Dexter Township's population grows at an average rate of 13.8% per decade from 2010-2035, its population will be approximately **8,365 in 2035** – a 38.45% increase from 2010.

Although the decline in jobs and population in Southeast Michigan may take place for several more years, the forecasted population estimates should be used as a guide only and should not be used as a substitute for continually monitoring the land use and demographic changes of Dexter Township and the *Dexter Township Region*. Therefore, even though the population of Dexter Township may increase between 6.59% and 38.45.8% from 2010-2035, this Plan must be flexible enough to accommodate rates of growth that may be much lower or much higher. For example, if the regional economy performs better than anticipated, the regional population may increase more than projected.

Table 6: *Dexter Twp. Region* Projected Population Growth, 2010-2035

Community	2010	2035 Forecast	Projected Population Change (#) 2010-2035	% Share of " <i>Region</i> " Growth 2010-2035
Dexter Twp.	6,042	6,440	398	3.61%
Chelsea	4,944	5,835	891	8.07%
Dexter Village	4,067	3,827	-240	-2.17%
Hamburg	21,165	23,383	2,218	20.10%
Lima	3,307	3,715	408	3.70%
Lyndon	2,720	3,203	483	4.38%
Pinckney	2,427	2,521	94	0.85%
Putnam	5,821	6,669	848	7.68%
Scio	16,470	18,826	2,356	21.35%
Sylvan	2,833	5,435	2,602	23.58%
Unadilla	3,366	4,243	877	7.95%
Webster	6,328	6,430	102	0.92%
Totals	79,490	90,527	11,037	100.00%

Source: U.S. Census and SEMCOG

Note: As mentioned previously, the release of the 2010 Census results have made many of the 2035 forecasts – which were done in 2005 – obsolete.

<sup>&</sup>lt;sup>1</sup> SEMCOG, 2035 Forecast for Southeast Michigan, p. 1.

#### Number of Current Households

As Dexter Township's population has steadily grown over the last several years, so has its number of households. A household is commonly defined as an occupied housing unit. Therefore, the number of households does not include those housing units that are vacant.

From 1990 to 2010, the number of households in Dexter Township grew from 1,527 to 2,225 – an increase of 45.7%. Dexter Township's population grew by 37.1% over that same time 20-year period. The reason for the discrepancy between the growth in households and the growth in population is that the average household size steadily decreased from 2.87 in 1990 to 2.72 in 2010.

From 1990-2010, there have been 12,286 new households in the *Dexter Township Region* – a 69.0% increase over that 20-year period. Of those new households, 698 are in Dexter Township (See **Table 7**). Like population growth, most of the new household growth in the *Dexter Township Region* has occurred in Hamburg and Scio Townships.

Table 7: Dexter Twp. Region Household Growth, 1990-2010

Community	1990	2000	2010	Household Change (#) 1990-2010	% Share of " <i>Region</i> " Growth 1990-2010
Dexter Twp.	1,527	1,863	2,225	698	5.68%
Chelsea	1,390	1,840	2,224	834	6.79%
Dexter Village	633	1,013	1,590	957	7.79%
Hamburg	4,435	7,086	7,860	3,425	27.88%
Lima	721	901	1,197	476	3.87%
Lyndon	700	877	962	262	2.13%
Pinckney	518	731	869	351	2.86%
Putnam	1,505	1,895	2,166	661	5.38%
Scio	3,479	5,057	6,405	2,926	23.82%
Sylvan	827	927	1,094	267	2.17%
Unadilla	975	1,156	1,286	311	2.53%
Webster	1,097	1,774	2,215	1,118	9.10%
Totals	17,807	25,120	30,093	12,286	100.00%

Sources: U.S. Census, SEMCOG, Washtenaw County Department of Economic Development and Environment, and Livingston County Department of Planning

#### Estimated Number of Future Households

Just as estimating future population is an important element of planning for Dexter Township, it is also important to reasonably estimate the number of additional households Dexter Township will have to house that population. SEMCOG's "2035 Forecast for Southeast Michigan" predicts the number of households in Dexter Township to be **2,565 in 2035** – an increase of 340 (15.3%) households from 2010-2035. The *Dexter Township Region* is expected to grow by only 5,809 households from 2010-2035 (See **Table 8**). Like future population growth, the future growth in the number of households will be directly related to the current and future economic cycle.

Table 8: Dexter Twp. Region Projected Household Growth, 2010-2035

Í		2035	Projected Household	% Share of "Region"
Community	2010	Forecast	Change (#) 2010-2035	Growth 2010-2035
Dexter Twp.	2,225	2,565	340	5.85%
Chelsea	2,224	2,586	362	6.23%
Dexter Village	1,590	1,711	121	2.08%
Hamburg	7,860	8,878	1,018	17.52%
Lima	1,197	1,483	286	4.92%
Lyndon	962	1,191	229	3.94%
Pinckney	869	998	129	2.22%
Putnam	2,166	2,553	387	6.66%
Scio	6,405	7,622	1,217	20.95%
Sylvan	1,094	2,128	1,034	17.80%
Unadilla	1,286	1,637	351	6.04%
Webster	2,215	2,550	335	5.77%
Totals	30,093	35,902	5,809	100.00%

Source: SEMCOG

Note: As mentioned previously, the release of the 2010 Census results have made many of the 2035 forecasts – which were done in 2005 – obsolete.

On page 26, the population growth from 1980-1990 was extrapolated to provide an alternative projection of the 2035 population. The number of households in Dexter Township grew at a rate of 21.5% from 1980-1990. Using Dexter Township's number of households in 2010 (2,225), if the number of households grows at an average rate of 21.5% per decade from 2010-2035, its number of households will be approximately 3,638 in 2035.

Although the average household size (household population divided by the number of households) in 2035 cannot be known without having an estimated household population, it can be closely estimated by dividing projected population by projected number of households. If SEMCOG's projections are used, the average household size will fall to about **2.51 by 2035** (down from 2.72 in 2010). If the alternative projection is used, average household size will fall even more, to about **2.30 in 2035**.

#### Age

In 2010, the median age of Dexter Township residents was 43.8 years old – a steady increase from 30.1 years old in 1980, 34.5 years old in 1990, and 38.2 years old in 2000. The aging of the population in Dexter Township mirrors a national trend, due to the aging of the "baby boom" generation. From 1990-2010, the percentage of residents between the ages of 18-34 declined by 10% while the percentage of residents between the age of 35-64 increased by 8% (See **Table 9**). SEMCOG's "2035 Forecast for Southeast Michigan" predicts that in 2035 the percentage of Dexter Township residents age 65 years or older will be between 20%-25% - about double the percentage measured in the 2010 Census. Therefore, unique consideration must be given as to how Dexter Township will plan for this growing demographic.

Table 9: Dexter Twp. Population by Age, 1990-2010

Age Groups	1990 Census	2000 Census	2010 Census
0-4 years old	358 (8%)	322 (6%)	320 (5%)
5-17 years old	905 (21%)	1,173 (22%)	1,232 (20%)
18-34 years old	984 (22%)	816 (16%)	728 (12%)
35-64 years old	1,832 (42%)	2,504 (48%)	3,033 (50%)
65+ years old	328 (7%)	433 (8%)	729 (12%)
Total Population	4,407 (100%)	5,248 (100%)	6,042 (100%)

Sources: U.S. Census Bureau and SEMCOG

#### Race

According to the 2010 U.S. Census, 95.1% of Dexter Township's population was White (See **Table 10**). Residents of one or more minority races, consist of about 4.9% of the Dexter Township population.

Table 10: Dexter Twp. Population by Race, 2010

Race	Number (%)
White	5,744 (95.1%)
Hispanic or Latino	106 (1.8%)
Asian	44 (0.7%)
Black or African American	28 (0.5%)
American Indian and Alaska Native	9 (0.1%)
Native Hawaiian and Other Pacific Islander	9 (0.1%)
Some Other Race	7 (0.1%)
Two or More Races	95 (1.6%)
Total Population	6,042 (100%)

Source: U.S. Census Bureau

#### Gender

According to the U.S. Census Bureau, the male-female ratio of Dexter Township has remained stable from 1980-2010. In 1980, the male-female ratio of Dexter Township was 49.0% (1,896) male – to – 51.0% (1,976) female. In 2010, the male-female ratio changed slightly to 50.7% (3,061) male – to- 49.3% (2,981) female.

#### People with Disabilities

According to the 2000 U.S. Census, approximately 1,101 residents (21% of the Township population) of Dexter Township had a disability (See **Table 11**). This number and percentage will likely increase as the population of Dexter Township continues to age. Much of this population will require specific service needs, such as transportation from their residence to their service providers. As of the date of approval of this Plan, the 2010 Census data for this topic has not yet been released. Once this data is released, a subsequent amendment to this Plan will include it.

Table 11: Dexter Twp. Population with a Disability, 2000

	Number and Percentage of Total Population with a Disability	Number and Percentage of Population 65+ years old with a Disability	
Sensory Disability	56 (1.1%)	24 (5.5%)	
Physical Disability	292 (5.6%)	109 (25.2%)	
Mental Disability	209 (4.0%)	25 (5.8%)	
Self-Care Disability	111 (2.1%)	34 (7.9%)	
Employment Disability	312 (5.9%)	N/A	
Go-Outside-Home Disability	121 (2.3%)	50 (11.5%)	
Total Disabilities	1,101 (21.0%)	242 (55.9%)	

Source: U.S. Census Bureau

#### **Educational Attainment**

The educational attainment of Dexter Township residents has increased over the years. From 1990 to 2000, the percentage of residents age 25 or older with a Bachelor's Degree or higher increased from about 28% to about 38% (See Tables 12 and 13). While educational attainment varied by municipality throughout the Dexter Township Region, Dexter Township's educational attainment proportions and changes were fairly consistent with those of the Dexter Township Region. Between 1990 and 2000, the proportion of residents age 25 or older with a Bachelor's Degree or higher increased in all 12 municipalities in the Dexter Township Region. Over the same time period, the proportion of residents age 25 or older that did not graduate high school fell in all 12 municipalities. The SEMCOG region and the state of Michigan experienced the same trends (See Tables 14 and 15). As of the date of approval of this Plan, the 2010 Census data for this topic has not yet been released. Once this data is released, a subsequent amendment to this Plan will include it.

Table 12: Dexter Twp. Region Educational Attainment of Residents Age 25 or Older, 1990

Community	Did Not Graduate High School	Graduated High School	Some College, No Degree	Associate Degree	Bachelor's Degree	Graduate or Professional Degree
Dexter Twp.	229 (8%)	871 (31%)	636 (22%)	286 (10%)	554 (19%)	266 (9%)
Chelsea	484 (19%)	663 (26%)	470 (18%)	155 (6%)	478 (18%)	346 (13%)
Dexter Village	184 (18%)	293 (29%)	250 (25%)	48 (5%)	156 (15%)	88 (9%)
Hamburg	1,331 (16%)	2,558 (30%)	2,144 (25%)	659 (8%)	1,278 (15%)	601 (7%)
Lima	214 (15%)	359 (25%)	351 (25%)	69 (5%)	263 (19%)	160 (11%)
Lyndon	290 (20%)	423 (29%)	322 (22%)	120 (8%)	179 (12%)	117 (8%)
Pinckney	182 (20%)	314 (34%)	179 (19%)	78 (8%)	126 (14%)	40 (4%)
Putnam	521 (18%)	1,020 (36%)	700 (25%)	185 (7%)	318 (11%)	88 (3%)
Scio	518 (8%)	1,234 (19%)	1,198 (19%)	468 (7%)	1,477 (23%)	1,444 (23%)
Sylvan	219 (14%)	504 (32%)	380 (24%)	96 (6%)	232 (15%)	152 (10%)
Unadilla	446 (24%)	648 (35%)	448 (24%)	113 (6%)	143 (8%)	47 (3%)
Webster	173 (8%)	505 (24%)	509 (24%)	167 (8%)	419 (20%)	332 (16%)
Totals	4,791 (14.3%)	9,392 (28.0%)	7,587 (22.6%)	2,444 (7.3%)	5,623 (16.8%)	3,681 (11.0%)

Source: U.S. Census Bureau and SEMCOG

Table 13: Dexter Twp. Region Educational Attainment of Residents Age 25 or Older, 2000

Community	Did Not Graduate High School	Graduated High School	Some College, No Degree	Associate Degree	Bachelor's Degree	Graduate or Professional Degree
Dexter Twp.	226 (6%)	792 (23%)	847 (24%)	286 (8%)	741 (21%)	586 (17%)
Chelsea	257 (8%)	716 (22%)	795 (25%)	135 (4%)	845 (26%)	456 (14%)
Dexter Vil.	131 (8%)	402 (25%)	376 (23%)	95 (6%)	383 (23%)	243 (15%)
Hamburg	928 (7%)	3,450 (26%)	3,456 (26%)	1,163 (9%)	3,016 (23%)	1,378 (10%)
Lima	136 (8%)	459 (26%)	353 (20%)	95 (5%)	366 (21%)	346 (20%)
Lyndon	126 (7%)	488 (28%)	419 (24%)	143 (8%)	369 (21%)	175 (10%)
Pinckney	97 (8%)	395 (33%)	322 (27%)	119 (10%)	195 (16%)	81 (7%)
Putnam	422 (12%)	1,221 (34%)	1,057 (29%)	290 (8%)	431 (12%)	217 (6%)
Scio	380 (4%)	1,049 (12%)	1,746 (20%)	451 (5%)	2,519 (29%)	2,635 (30%)
Sylvan	158 (9%)	423 (24%)	384 (22%)	119 (7%)	423 (24%)	268 (15%)
Unadilla	325 (15%)	768 (36%)	557 (26%)	155 (7%)	232 (11%)	79 (4%)
Webster	128 (4%)	528 (16%)	649 (19%)	338 (10%)	978 (29%)	776 (23%)
Totals	3,314 (7.2%)	10,691 (23.2%)	10,961 (23.8%)	3,389 (7.4%)	10,498 (22.8%)	7,240 (15.7%)

Source: U.S. Census Bureau and SEMCOG

Table 14: Educational Attainment Age 25+, 1990

Place	Did Not Graduate High School	Graduated High School	Some College, No Degree	Associate Degree	Bachelor's Degree	Graduate or Professional Degree
Dexter Twp.	229 (8%)	871 (31%)	636 (22%)	286 (10%)	554 (19%)	266 (9%)
Dexter Twp.	4,791	9,392	7,587	2,444	5,623	3,681
Region	(14.3%)	(28.0%)	(22.6%)	(7.3%)	(16.8%)	(11.0%)
SEMCOG	693,348	866,086	617,102	187,492	349,319	213,910
Region	(24%)	(30%)	(21%)	(6%)	(12%)	(7%)
State of	1,356,759	1,887,449	1,191,518	392,869	638,267	375,780
Michigan	(23.2%)	(32.3%)	(20.4%)	(6.7%)	(10.9%)	(6.4%)

Source: U.S. Census Bureau and SEMCOG

Table 15: Educational Attainment Age 25+, 2000

Place	Did Not Graduate High School	Graduated High School	Some College, No Degree	Associate Degree	Bachelor's Degree	Graduate or Professional Degree
Dexter Twp.	226 (6%)	792 (23%)	847 (24%)	286 (8%)	741 (21%)	586 (17%)
Dexter Twp.	3,314	10,691	10,961	3,389	10,498	7,240
Region	(7.2%)	(23.2%)	(23.8%)	(7.4%)	(22.8%)	(15.7%)
SEMCOG	538,420	891,629	733,402	207,969	477,604	300,669
Region	(17%)	(28%)	(23%)	(7%)	(15%)	(10%)
State of	1,064,133	2,010,861	1,496,576	448,112	878,680	517,579
Michigan	(16.6%)	(31.3%)	(23.3%)	(7.0%)	(13.7%)	(8.1%)

Source: U.S. Census Bureau and SEMCOG

#### **Economic Characteristics**

#### **Employment**

According to the 2000 U.S. Census, there were 2,791 residents over the age of 16 that were employed (See **Table 16**). As of the date of approval of this Plan, the 2010 Census data for this topic has not yet been released. Once this data is released, a subsequent amendment to this Plan will include it.

Table 16: Industry of the Employed Civilian Population Age 16+, 2000

Industry	Dexter	Dexter Twp.	SEMCOG	State of
ilidustiy	Twp.	Region	Region	Michigan
Agriculture; forestry; fishing and	31	248	5,884	49,496
hunting; mining	(1.1%)	(0.6%)	(0.3%)	(1.1%)
Construction	137	3,041	123,988	278,079
Construction	(4.9%)	(7.3%)	(5.5%)	(6.0%)
Manufacturing	408	8,174	507,435	1,045,651
Manufacturing	(14.6%)	(19.7%)	(22.5%)	(22.5%)
Wholesale trade	121	1,480	76,267	151,656
vvilolesale trade	(4.3%)	(3.6%)	(3.4%)	(3.3%)
Retail trade	270	4,551	257,942	550,918
netali trade	(9.7%)	(10.9%)	(11.4%)	(11.9%)
Transportation and warehousing;	79	1,121	100,952	191,799
utilities	(2.8%)	(2.7%)	(4.5%)	(4.1%)
Information	48	1,059	55,471	98,887
Illioillation	(1.7%)	(2.5%)	(2.5%)	(2.1%)
Finance; insurance; real estate and	128	2,222	134,256	246,633
rental and leasing	(4.6%)	(5.3%)	(5.9%)	(5.3%)
Professional; scientific; management;	343	3,750	231,361	371,119
administrative; waste mgmt. services	(12.3%)	(9.0%)	(10.2%)	(8.0%)
Educational; health and social services	810	10,762	429,450	921,395
Educational, fleatin and social services	(29.0%)	(25.9%)	(19.0%)	(19.9%)
Arts; entertainment; recreation;	167	2,495	162,304	351,229
accommodation and food services	(6.0%)	(6.0%)	(7.2%)	(7.6%)
Other services (except public	133	1,584	100,181	212,868
administration)	(4.8%)	(3.8%)	(4.4%)	(4.6%)
Public administration	116	1,096	72,557	167,731
r ubiic auministration	(4.2%)	(2.6%)	(3.2%)	(3.6%)
	2,791	30,120	2,258,048	4,637,461
Totals	(100%)	(100%)	(100%)	(100%)

Source: U.S. Census Bureau

The two largest employment industries of residents of Dexter Township, the *Dexter Township Region*, the SEMCOG Region, and the state of Michigan were "manufacturing" and "educational; health and social services." While the largest employment industry for residents of the SEMCOG Region and

the state of Michigan was manufacturing, the largest employment industry for residents of Dexter Township and the *Dexter Township Region* was educational, health, and social services. Therefore, residents of Dexter Township are less sensitive to the changes in the manufacturing industry, but more sensitive to those in the education, health, and social services industries. The large proportion of education, health, and social services employees in Dexter Township is largely attributed to Dexter Township's proximity to major employers such as the University of Michigan and Trinity Health (which includes St. Joseph Mercy Hospital) (See **Table 17**).

Table 17: Major Educational and Health Services Employers in Washtenaw County, 2011

	Industry	Number of Employees	Location
University of Michigan	Education	26,241	Ann Arbor
U of M Health System	Health Care	21,271	Ann Arbor
Trinity Health	Health Care	7,257	Ann Arbor
Ann Arbor Public Schools	Education	2,659	Ann Arbor
Washtenaw Community College	Education	2,218	Ann Arbor
Eastern Michigan University	Education	1,950	Ypsilanti
VA Medical Center	Health Care	1,600	Ann Arbor
Chelsea Community Hospital	Health Care	1,034	Chelsea

Sources: Ann Arbor SPARK and Michigan Economic Development Corporation

#### Income

According to the 2000 Census, the median household income in Dexter Township was \$75,085 in 1999. This is higher than the median household income of the *Dexter Township Region*, the SEMCOG Region, and the state of Michigan (See **Table 18**). Dexter Township's median household income is the third highest in the *Dexter Township Region*, after Webster (\$90,830) and Hamburg Townships (\$75,960). As of the date of approval of this Plan, the 2010 Census data for this topic has not yet been released. Once this data is released, a subsequent amendment to this Plan will include it.

Table 18: Median Household Income, 1999

Place	Income
Dexter Township	\$75,085
Dexter Twp. Region	\$65,480
SEMCOG Region	\$49,979
State of Michigan	\$44,667

Source: U.S. Census Bureau and SEMCOG

# **Chapter 5: Physical Characteristics**

### **Environmental and Natural Features**

#### Climate

Dexter Township's four-season climate allows for excellent recreational activities from swimming to cross-country skiing. The temperatures vary widely with the winter winds and the summer humidity. According to the Weather Channel, the average maximum and minimum temperature in July (the warmest month) is 83 degrees and 62 degrees Fahrenheit, respectively. The average maximum and minimum temperature in January (the coolest month) is 30 degrees and 17 degrees Fahrenheit, respectively. The average annual precipitation for Dexter Township is 35.35 inches. The average precipitation in August (the wettest month) is 3.71 inches. The average precipitation in February (the driest month) is 2.04 inches. The average annual amount of snowfall is 36 inches.

# **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 850-1,000 feet above sea level (See **Map 5**). Its highest points, located at 1,040 feet above sea level, are located around the Inverness Woods Country Club (located in the center of the western edge of the Township in Section 19) and at Peach Mountain (Sections 11, 12, and 14). Most of the area surrounding the Inverness Woods County Club is used for residential subdivisions, and most of the Peach Mountain area is owned by the University of Michigan and used for the Peach Mountain Observatory. The lowest points in Dexter Township, at 840 feet above sea level, are located along the Huron River.

### Soils: Steep Slopes

As a result of existing topography, areas of steep slope occur throughout the Township (See **Map 6**). The "Steep Slope" areas in **Map 6** show areas where the slope is 12% or greater based on the <u>United States Department of Agriculture Soil Conservation Service Soil Survey of Washtenaw County</u>. Any soil with a slope of 12% or greater is considered to have *severe* limitations on development. Depending on soil characteristics and existing vegetation, these categories of slope are considered vulnerable to excessive erosion and runoff. Most of the "Steep Slope" areas are located in areas owned by the University of Michigan and the State of Michigan.

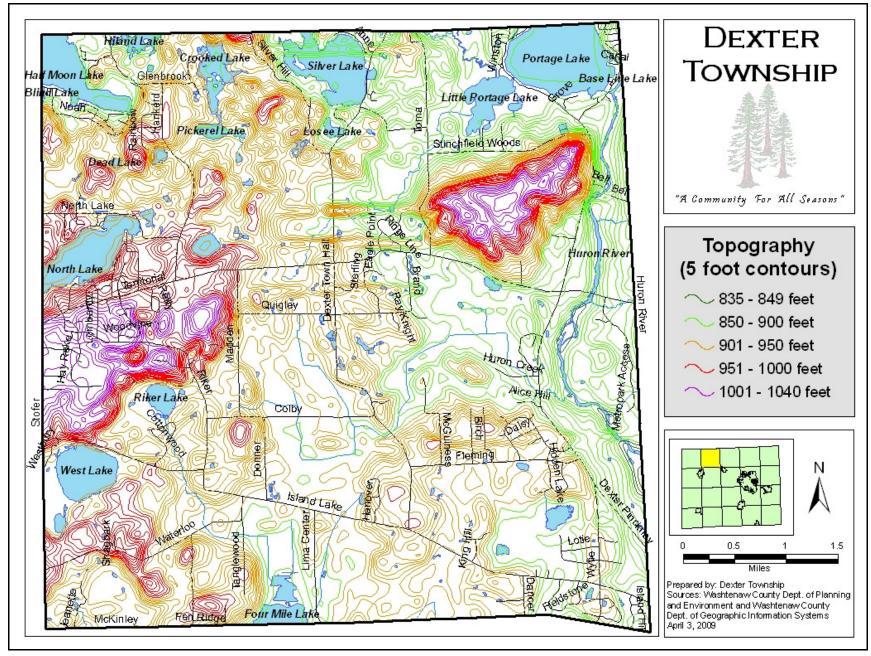
### Soils: Septic Limitations

The <u>Soil Survey</u> classifies each soil type by several factors. One of these factors is the limitations of the soil on a septic tank absorption field. The septic limitations of the soil are determined by evaluating the soil material from a depth of 18 inches to 6 feet, and considering the properties that affect both absorption of effluent and construction and operation of the system. These properties include permeability, depth to water table, and susceptibility to flooding. Septic limitations are categorized into 3 types: *Severe*, *Moderate*, or *Slight* Limitations (See **Map 7**).

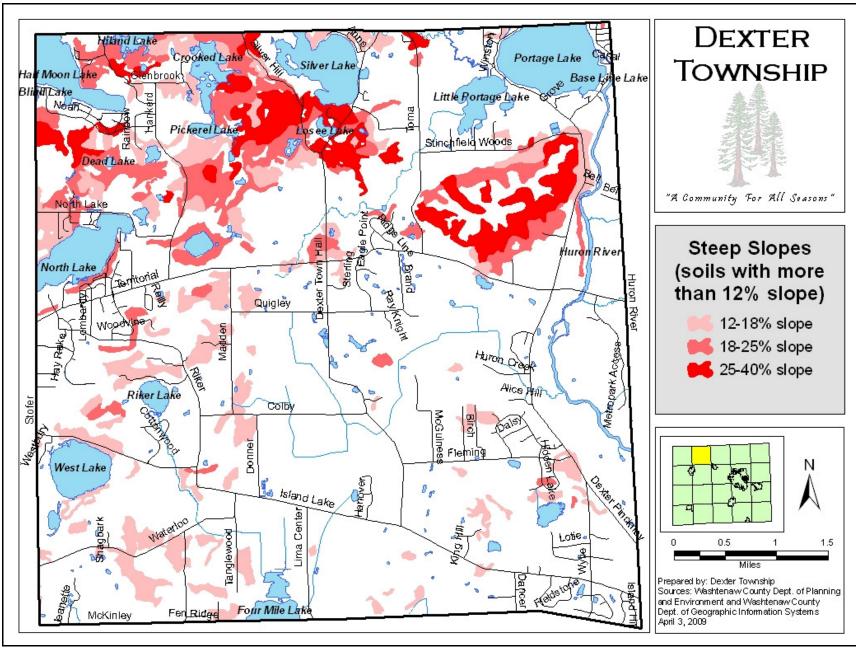
# Soils: Residential Development Limitations

The <u>Soil Survey</u> also classifies each soil type on its limitations on residential dwellings. These 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. Limitations on residential dwellings without a basement are also categorized by *Severe, Moderate*, or *Slight* Limitations (See **Map 8**).

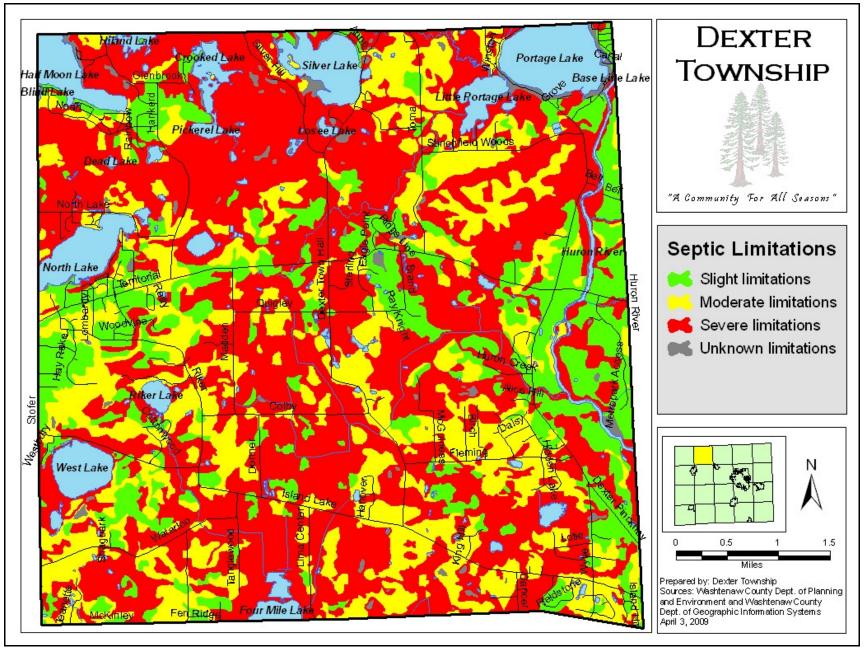
**Map 5: Dexter Township Topography** 



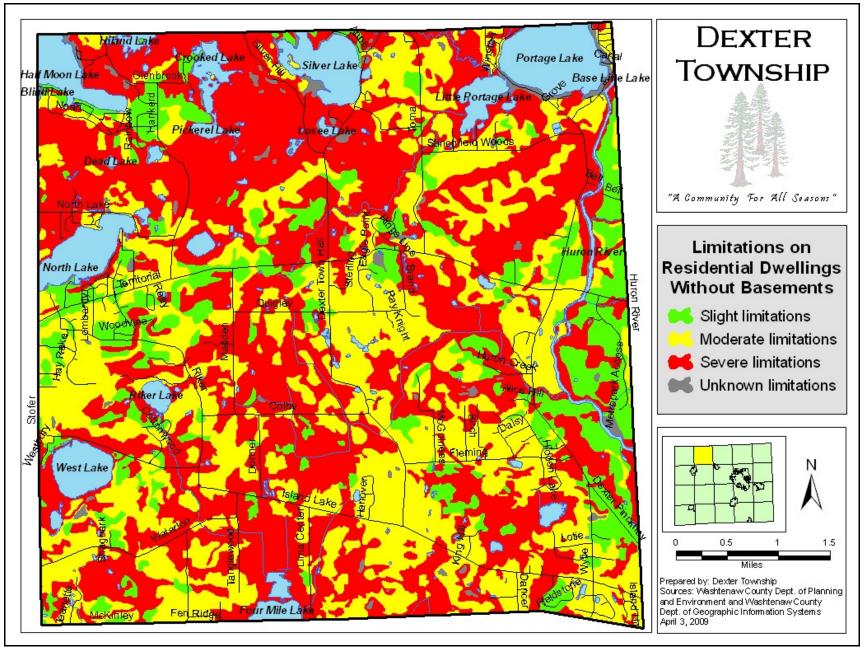
Map 6: Dexter Township Soils: Steep Slopes



**Map 7: Dexter Township Soils: Septic Limitations** 



Map 8: Dexter Township Soils: Limitations on Residential Dwellings without Basements



#### Lakes

Of Dexter 33 square mile area of Dexter Township, approximately 2.96 square miles (about 9%) is covered by lakes and the Huron River (See Map 3). The 15 lakes in Dexter Township include Base Line Lake, Blind Lake, Crooked Lake, Dead Lake, Four Mile Lake, Half Moon Lake, Hiland Lake, Little Portage Lake, Losee Lake, North Lake, Pickerel Lake, Portage Lake, Riker Lake, Silver Lake, and West Lake. These lakes as well as the Huron River are used for passive and active recreational purposes.

### **Floodplains**

A floodplain is the land surrounding a river, stream, lake or drain that becomes inundated by the overflow of water. Inundation or flooding typically takes place after a rain event, and floodplains serve the surrounding area by retaining the excess floodwaters. A 100-year floodplain is land that has a 1% chance of becoming flooded in a given year – not a flood which occurs once every hundred years. The 100-year floodplain in Dexter Township is located mostly along the Huron River (See **Map 9**). This is determined from the Flood Insurance Rate Maps from the Federal Emergency Management Agency (FEMA). FEMA is currently in the process of updating its floodplain boundaries, and its revised floodplain map for Dexter Township is not yet available. When FEMA publishes an updated map for Dexter Township, **Map 9** will become obsolete and will eventually be replaced with the new map.

### Watersheds, Sub-Watersheds, and Sub-Basins

Dexter Township is located in the Huron River Watershed, which is one of 63 watersheds in the state of Michigan. A watershed is an area of land in which all surface waters drain to a common outlet. The Huron River Watershed is approximately 910 square miles and stretches across a 7-county area of southeast Michigan (See **Map 10**). Water from the Watershed collects as far as 70 miles from where it empties at the end of the Huron River into Lake Erie.

According to the Huron River Watershed Council (HRWC), there are 24 sub-watersheds within the Huron River Watershed, and many of these sub-watersheds contain several sub-basins. Sub-watersheds and sub-

basins function like watersheds, but on a much smaller scale. Three of these sub-watersheds (Mill Creek, Portage Creek, and Huron River) and nine of these sub-basins are partially located in Dexter Township (See **Map 11**). The boundaries of these sub-basins generally follow the natural topography.

There are several sub-watershed management plans that have been facilitated by the HRWC. These sub-watershed plans can be accessed at <a href="http://www.hrwc.org/text/watershedmgmtplans.htm">http://www.hrwc.org/text/watershedmgmtplans.htm</a>. 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 was an active participant in the preparation of the Mill Creek Subwatershed Management Plan.

### 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. In fact, in the 2007 Dexter Township Community Survey, more respondents (81.8%) rated "Groundwater quality" as a High Priority than any other item. This indicates that residents understand the source of their water and place a high value on its quality.

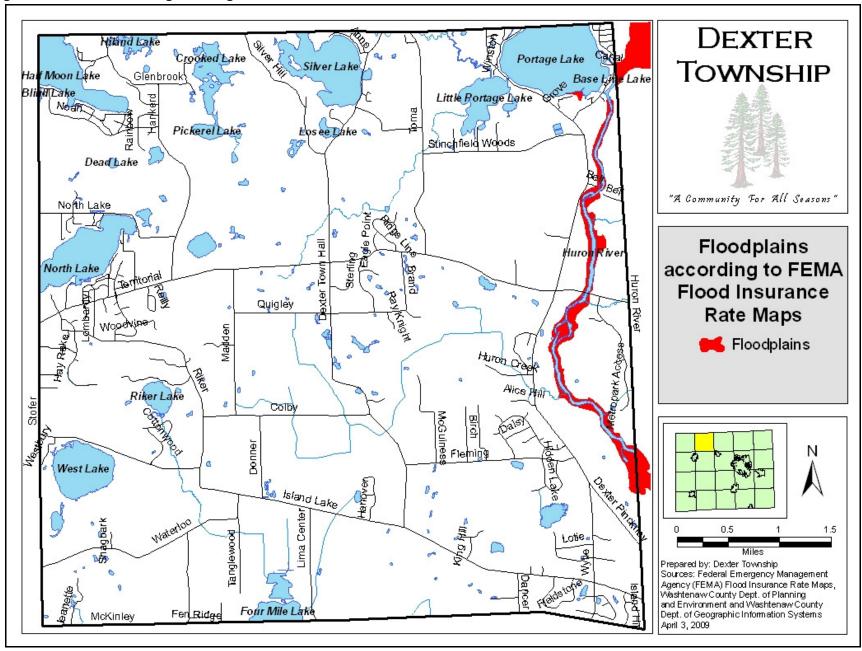
One way to protect the quality of groundwater is to protect groundwater recharge areas from excessive development or storm water runoff. A groundwater recharge area is a highly permeable area that readily permits water to move into an aquifer underground. High permeability decreases the amount of time 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.

Without a professional on-site hydrogeologic evaluation, the location and boundaries of groundwater recharge areas cannot be known. However, there are many sources of information that indicate whether or not an area has a strong likelihood of being a groundwater recharge area, including:

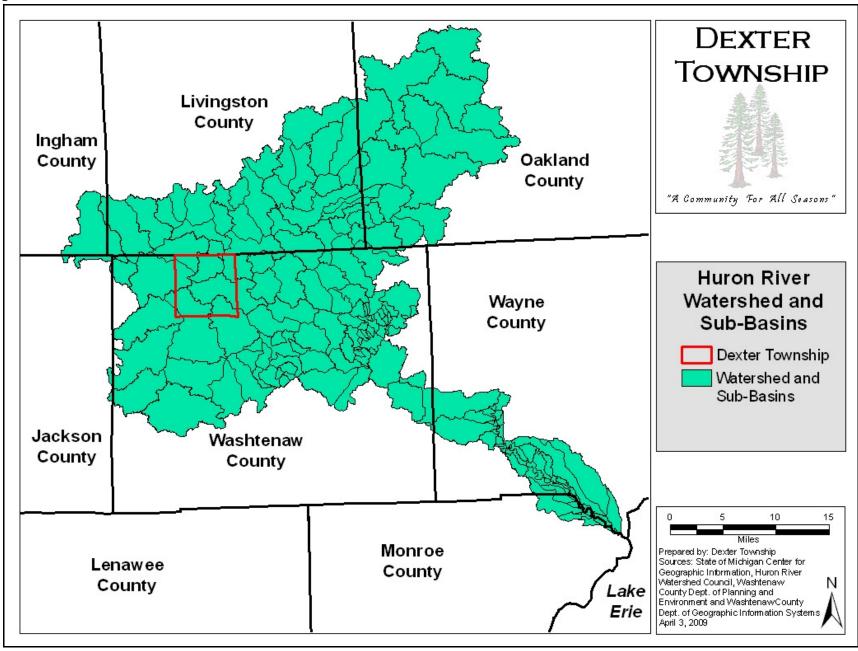
- Map 12, which shows the *probability* of an area being a groundwater recharge area. The data in this map was produced by the University of Michigan School of Natural Resources. Areas of high elevation, permeable soils, and coarse-textured glacial geology have a high probability of being groundwater recharge areas. These probabilities are not quantified into percentages, but rather into whether the particular area has a higher or lower probability based on the existing natural conditions. Therefore, the data in **Map 12** is more qualitative.
- Map 13, which shows the *depth to groundwater* based on well log records from the Michigan Geology Survey. This data was compiled by the HRWC and converted into map form. However, this map shows only the general groundwater depth rather than individual groundwater depths of each well. Therefore, the data in Map 13 should not be used to determine precise groundwater depths.
- Map 14, which shows the *soil permeability* based on the individual soil characteristics identified by the USDA Natural Resource Conservation Service. These soil characteristics determine how rapid or slow a soil's permeability is.

Again, the data in these maps are for illustrative purposes only, and should not be used to establish specific locations and boundaries of groundwater recharge areas.

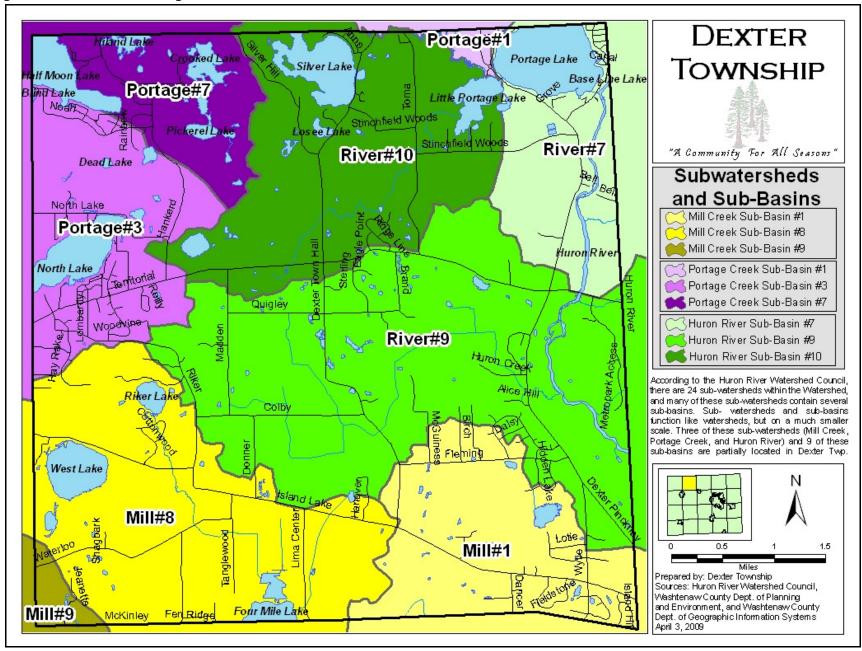
Map 9: Dexter Township Floodplains



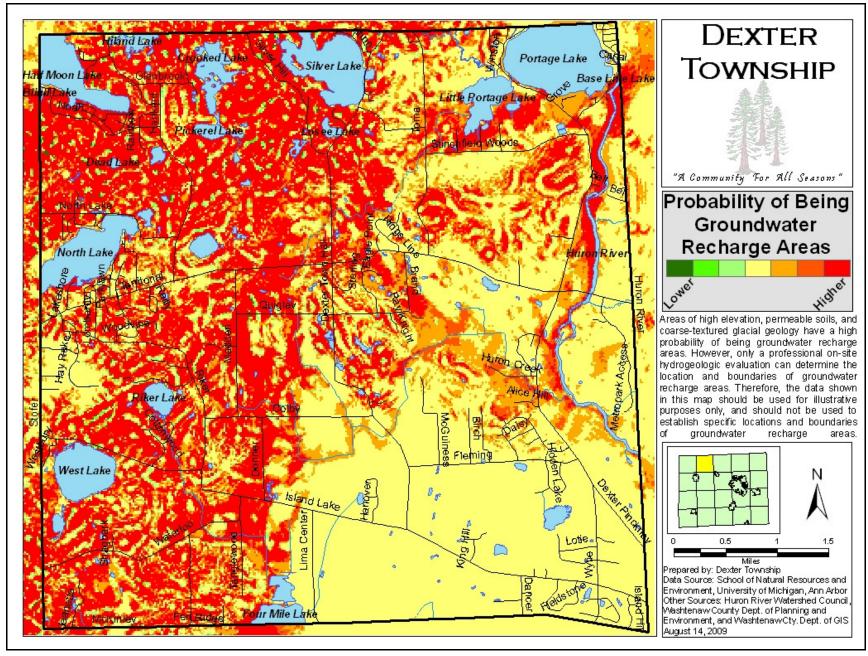
**Map 10: Huron River Watershed and Sub-Basins** 



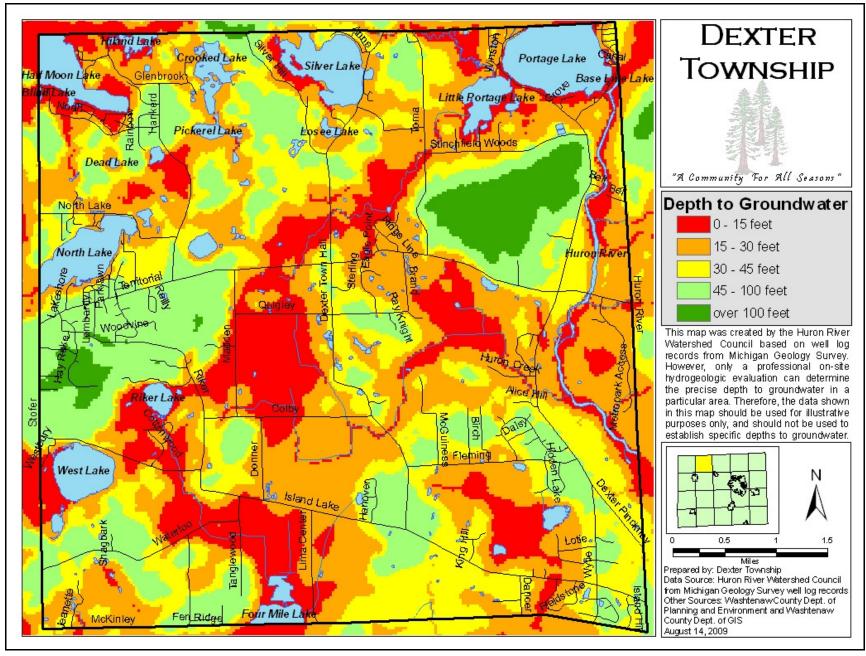
Map 11: Dexter Township Sub-Watersheds and Sub-Basins



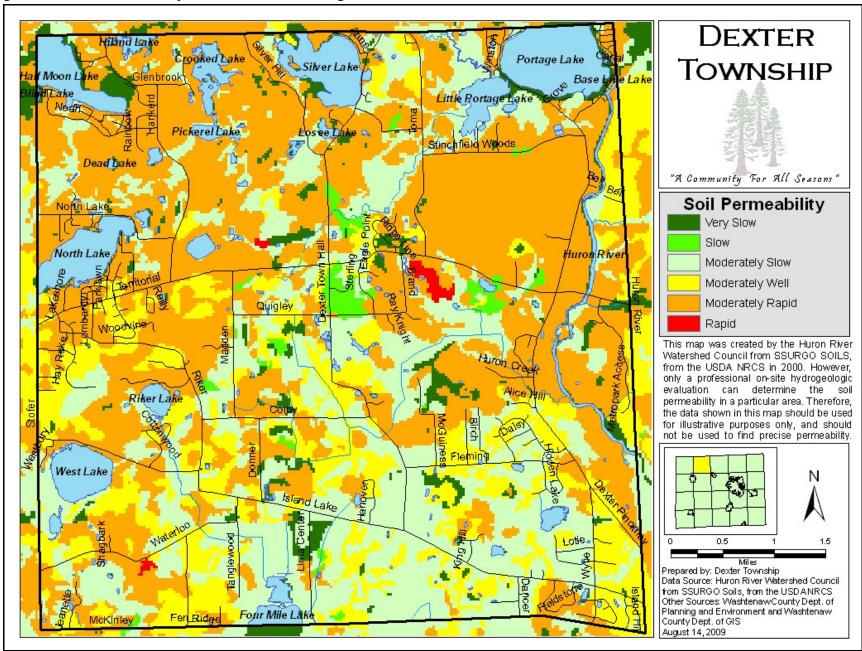
**Map 12: Dexter Township Potential Groundwater Recharge Areas** 



Map 13: Depth to Groundwater in Dexter Township



Map 14: Soil Permeability in Dexter Township



#### Wetlands

Wetlands are typically defined as land characterized by the presence of water at a frequency and duration sufficient to support, and that under normal circumstances does support, wetland vegetation or aquatic life. Wetlands are oftentimes referred to as a bog, swamp, or marsh. Wetlands function like natural sponges, storing water, filtering pollutants and sediments from it, and then slowly releasing it. This process helps control erosion and reduces flood heights. In fact, one acre of wetland can store up to 1.5 million gallons of floodwater – enough to fill more than 2 Olympic size swimming pools (MDNRE). Because of the numerous benefits that wetlands provide, this Plan includes strategies that preserve both the quantity and quality of its wetlands.

Almost 36% (11.8 square miles) of Dexter Township is covered by wetlands (See Map 15). The wetlands in this map were delineated by the Michigan Department of Natural Resources & Environment (MDNRE) in December 2006. The MDNRE used several sources to delineate this map, including quadrangle maps of the U.S. Geological Survey (USGS), National Wetlands Inventory (NWI) maps of the U.S. Fish and Wildlife Service (USFWS), Michigan Resource Information System (MIRIS) land use inventory maps of the Michigan Department of Natural Resources (MDNR), remote sensing data (e.g. aerial photography), soil survey maps of the U.S. Natural Resource Conservation Services (NRCS), hydric soils maps of the NRCS, and recorded hydrologic data. Due to the multiple sources of data, the sizes of wetlands and locations of wetland boundaries are general. A far more accurate method of delineating a wetland is to participate in the Wetland Identification Program (WIP) through the MDNRE. This is a formal process by which a wetland can be delineated in accordance with Public Act 451 of 1994, as amended.

The following types of wetlands in Dexter Township are regulated by the MDNRE through 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 the MDNRE to be essential to the preservation of the state's natural resources.

Of the 11.8 square miles (7,536 acres) of wetlands in Dexter Township, 1,895 acres (about 25%) include the Huron River or one of Dexter Township's 15 lakes. Therefore, Dexter Township contains 5,641 acres of wetlands outside of the lakes and the Huron River. Approximately 250 of these acres consist of wetland areas that are 5 acres or less in size. While this may seem like a minor amount, 159 of the 222 wetland areas delineated in **Map 15** are 5 acres or less in size. Since most of these 159 wetland areas are not contiguous to or within 500 feet of an inland lake, pond, river, or stream, most are not regulated by the MDNRE. The sizes of these 159 wetland areas are shown in **Table 19**.

Table 19: Number and Size of Wetlands (excluding lakes and the Huron River)

Size of Wetland Areas	Number of Wetland Areas	Total Acreage
Less than 1/2 acre	29	9.4 acres
Between ½ – 2 acres	84	85.8 acres
Between 2 – 5 acres	46	154.4 acres
Total Wetlands 5 Acres and Below	159	249.6 acres
Total Wetlands More Than 5 Acres	63	5,391.4 acres
TOTAL WETLAND AREAS	222	5,641 acres

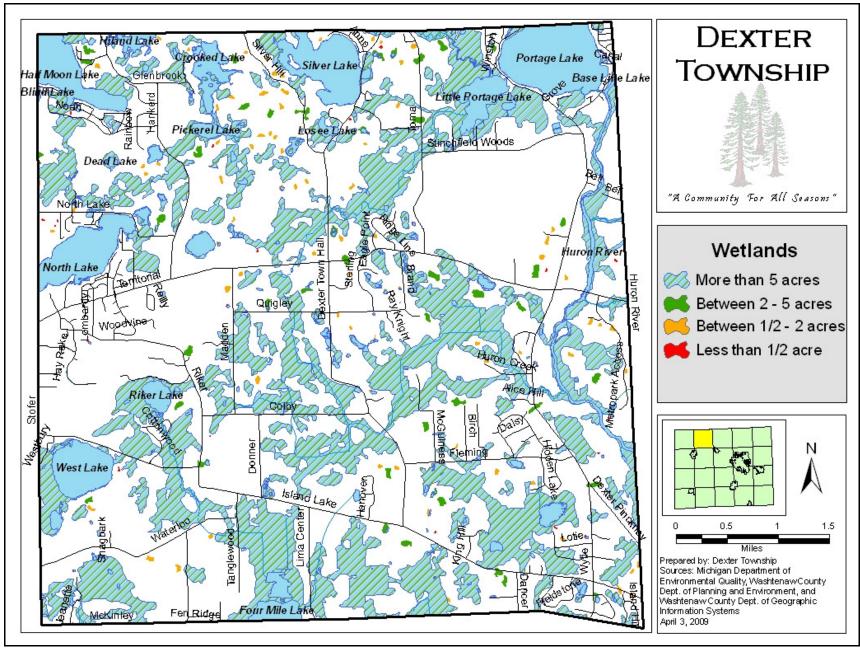
Source: MDNRE

#### **Woodlands**

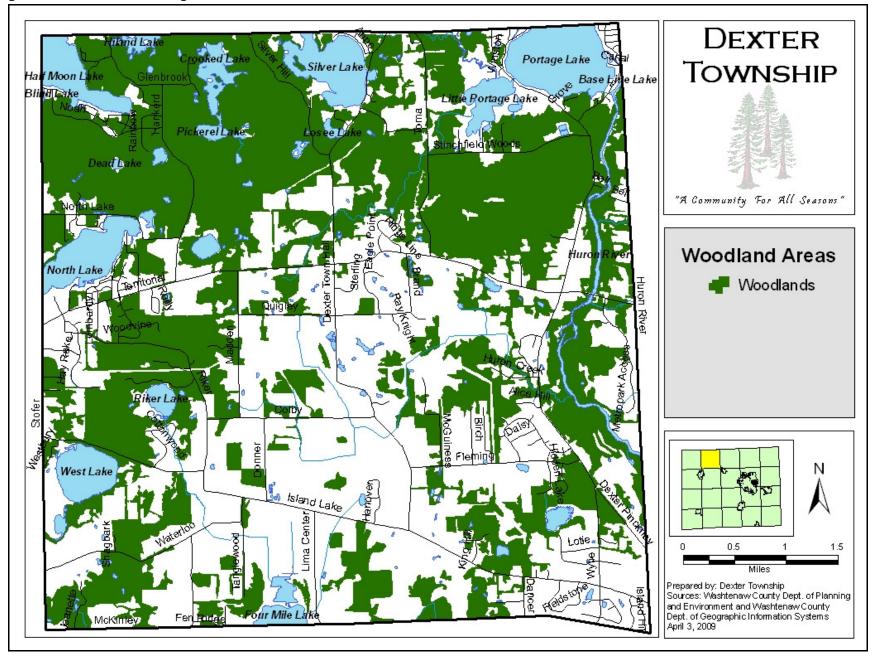
Woodlands serve many valuable functions, such as aesthetics, fuel sources, building materials, wildlife habitat, slope stabilization, water purification, storm water management, and wind noise and view buffers. The woodlands shown in **Map 16** were mapped by Washtenaw County. These woodland areas include areas with over 26% canopy cover or interlocking crowns of 26% or more and are more than 2.5 acres in size. Approximately 43% (14.2 square miles) of Dexter Township is covered by woodland areas. This relatively high percentage is due to the large amount of publicly owned land (State of Michigan, Huron-Clinton Metropolitan Authority, and the University of Michigan) that has been left mostly undeveloped.

**Map 17** is a hybrid of **Maps 15** and **16**, and shows Dexter Township's wetlands and woodlands overlaid with one another.

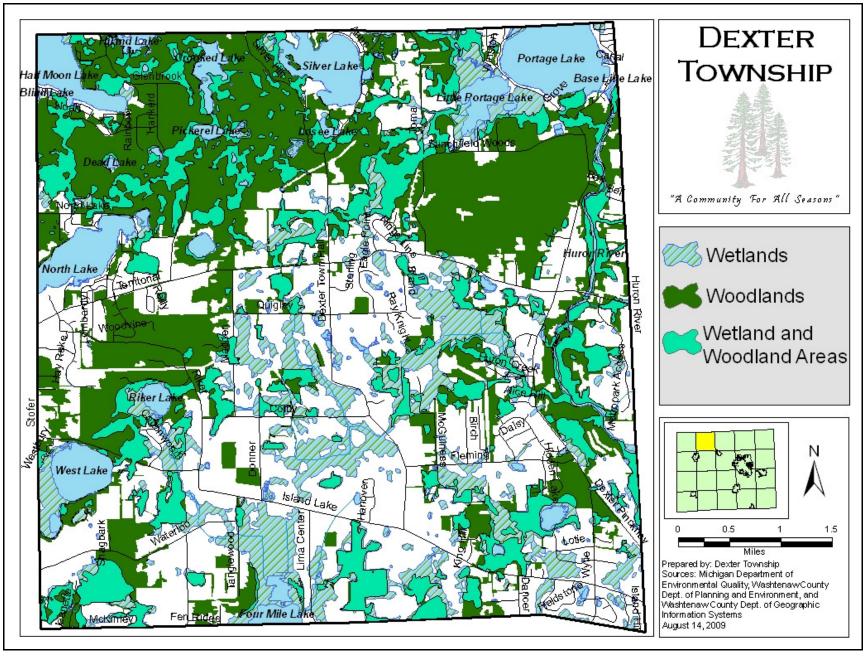
**Map 15: Dexter Township Wetlands** 



**Map 16: Dexter Township Woodlands** 



**Map 17: Dexter Township Wetland and Woodland Areas** 



### High Quality Natural Areas/Bioreserve Areas

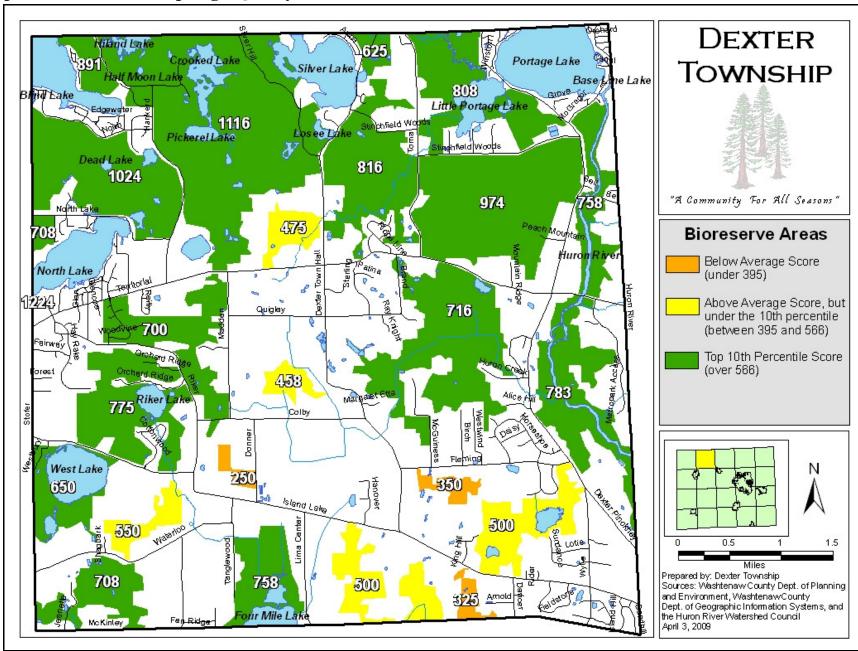
In 2007, the Huron River Watershed Council (HRWC) completed a 2-year project to identify and map all of the high quality natural areas (bioreserve areas) for all of the communities within the Huron River Watershed. The HRWC began the project by mapping all of the natural areas (wetlands, woodlands, and open fields) in the watershed and scoring them based on the following 15 criteria (with a maximum allowable score of 100 each):

- Size
- Core size
- Presence of waterway or lake
- Areas containing wetlands
- Potential for groundwater recharge
- Pre-settlement (1800s) vegetation and ecosystems.
- Glacial variation
- Topographical variation
- Connectedness to other bioreserve areas
- Connectedness to undeveloped areas
- Unchanged vegetation (by percentage)
- Unchanged vegetation (by area)
- Restorability
- Presence of high quality plant communities
- Biorarity

Of the nearly 1,700 of bioreserve areas (about 237,000 acres) in the Huron River Watershed, 25 of these areas (about 9,180 acres) are located in Dexter Township (see **Map 18**). While the average score of a bioreserve area in the Huron River Watershed was about 395, the average score of a bioreserve area in Dexter Township was about 698. Dexter Township's high score is mostly due to the size, quality, and connectivity of its Wetlands (**Map 15**), Woodlands (**Map 16**), and Public and Conservation Areas (**Map 24**). Due to possible variations in scoring criteria and individual scorers, **Map 18** should be used mainly as a guideline. This map may be refined or substituted in the future as more thorough on-site evaluations take place.

Because of the high quality of many of Dexter Township's natural areas, this Plan includes strategies intended to preserve the quality and quantity of these areas as appropriate, balancing the needs of the community.

Map 18: Dexter Township High Quality Natural Areas/Bioreserve Areas



# **Transportation/Circulation**

#### **Current Road Network**

Of the 58.1 miles of Primary and Local County Roads in Dexter Township, 27.3 miles are paved and 30.8 miles are gravel. These roads are two-lane rural roads. Most of the roads in Dexter Township are classified as Local Roads, which means they are designed to receive traffic from the larger Primary Roads and redistribute it to the public or private local roads in neighborhoods. The Primary Paved Roads within the Township include Hankerd Rd., Dexter-Townhall Rd., Dexter-Pinckney Rd., Island Lake Rd. (east of Lima Center Rd.), North Territorial Rd., Stofer Rd., Hadley Rd., McGregor Rd., and Huron River Dr. (south of North Territorial Rd.). Map 19 shows all of the roads in Dexter Township, their classifications, and the volume count as measured by the Washtenaw County Road Commission. The 24-hour volume counts are also represented in Table 20, as are the morning and evening peak hour traffic levels.

Based on the traffic counts, the busiest roads are Dexter-Pinckney Rd. and North Territorial Rd. Dexter-Pinckney Rd. directly connects the Village of Dexter, the Village of Pinckney, M-36, I-96, and the City of Howell. North Territorial interchanges at US-23 approximately 7.5 miles east of Dexter Township, making its intersection at Dexter-Pinckney Rd. a pivotal point during peak traffic hours. According to SEMCOG, this intersection experiences more traffic crashes than any other intersection in Dexter Township. From 2005-2009 there were 38 traffic crashes at this intersection, which ranked 175<sup>th</sup> in Washtenaw County. None of these crashes were fatal, and 28 resulted in no injury. More recent and/or detailed crash data can be found at <a href="https://www.miwats.org">www.miwats.org</a>, and <a href="https://www.miwats.org</a>, and <a href="https://www.miwats.org">www.miwats.org</a>, and <a href="https://www.miwats.org</a>.

Other significant roads in Dexter Township are McGregor Rd. east of Dexter-Pinckney Rd. (to the Portage Lake area), Island Lake Rd. east of Dexter Townhall Rd. (to the Village of Dexter), and Stofer Rd. south of North Territorial Rd. (to M-52 and the City of Chelsea).

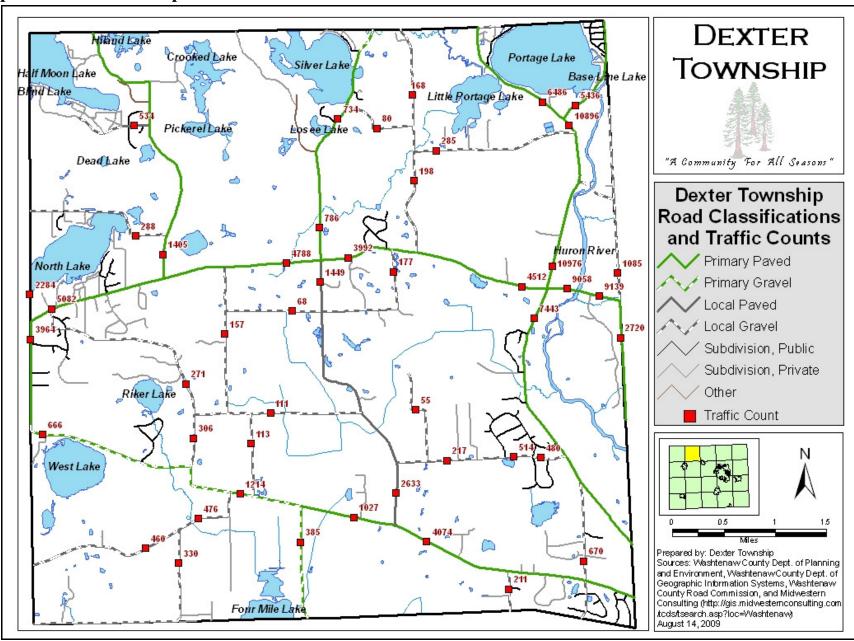
Although Dexter Township does not contain any freeways, freeway interchanges, highways, or rail lines, there are several of these in the *Dexter Township Region* (See Map 20) and Washtenaw County (See Map 21). Because of nearby freeway interchanges and state highways nearby, Dexter Township is relatively accessible to residential commuters.

**Table 20: Dexter Township Traffic Counts** 

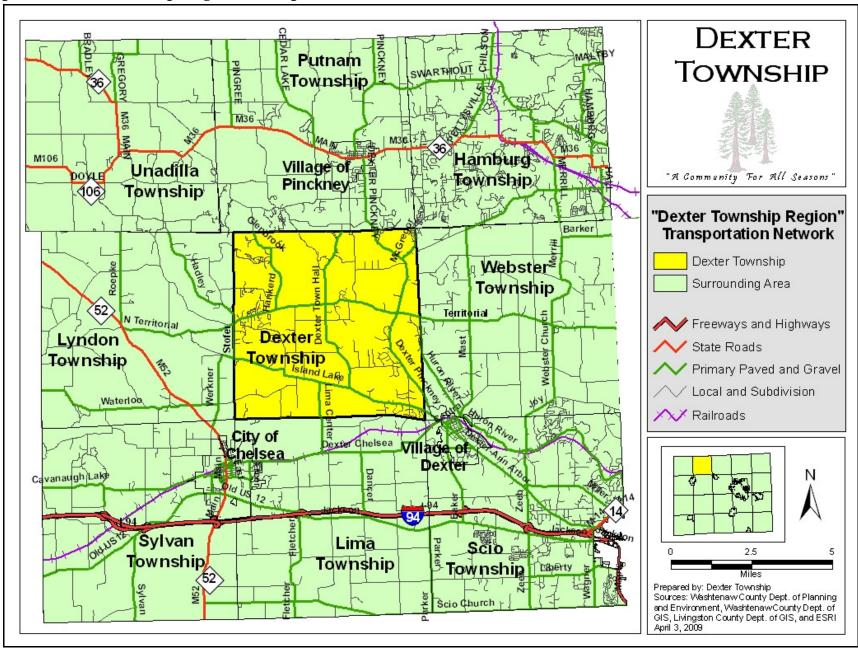
Tubic 20.	DUALE	1 TOWNSHIP 11	ullic C	Julie		
Road	Dir	Cross Street	Surface	Date	24-Hr Count	Peak Hr AM / PM
Brand	South of	N Territorial	Gravel	6/6/05	177	15 / 21
Colby	East of	Donner Rd	Gravel	8/8/05	111	9 / 15
Dancer	South of	Island Lk Rd	Gravel	6/6/05	211	17 / 23
Dexter-Pinckney	North of	McGregor Rd	Paved	6/10/09	6,486	544 / 623
Dexter-Pinckney		McGregor Rd	Paved	6/10/09	10,896	975 / 1,098
Dexter-Pinckney	North of	N. Territorial	Paved	6/10/09	10,976	957 / 1,095
Dexter-Pinckney	South of	N. Territorial	Paved	6/11/09	7,443	523 / 718
Dexter-Townhall	South of	Stinchfield Woods Rd	Paved	9/20/04	734	49 / 86
Dexter-Townhall	North of	N. Territorial	Paved	6/10/09		58 / 77
Dexter-Townhall	South of	N. Territorial	Paved	5/28/09	1,449	107 / 157
Dexter-Townhall	North of	Island Lake Rd	Paved	7/21/04	2,633	195 / 250
Donner Rd	South of	Colby Rd	Gravel	8/8/05	113	9 / 18
Fleming	East of	McGuiness Rd	Gravel	6/7/05	217	19 / 22
Fleming	West of	Carriage Ln	Gravel	9/21/05	514	44 / 54
Fleming	East of	Carriage Ln	Gravel	9/21/05	480	44 / 51
Hadley	North of	N. Territorial Rd	Paved	6/15/09	2,284	167 / 207
Hankerd	North of	N Territorial Rd	Paved	5/28/09		104 / 132
	North of	N. Territorial Rd.	Gravel	6/8/09	1,085	80 / 83
	South of	N. Territorial Rd.	Paved	6/8/09		291 / 256
Island Lake	East of	Stofer Rd	Gravel	5/10/05	666	55 / 57
Island Lake	West of	Donner Rd	Gravel	8/8/05	1,214	98 / 135
Island Lake	West of	Dexter Townhall Rd	Paved	6/11/09	1,027	92 / 103
Island Lake	East of	Dexter Townhall Rd	Paved	7/21/04		329 / 421
Lima Center		Island Lake Rd	Gravel	6/15/09		25 / 40
Madden	South of	Quigley Rd	Gravel	5/9/05	157	11 / 17
McGregor	East of	Dexter-Pinckney Rd	Paved	6/10/09		429 / 573
McGuiness	North of	Fleming Rd	Gravel	8/16/05	55	6/5
McKinley Rd	South of	Waterloo Rd	Gravel	5/5/05		27 / 36
Noah Rd	West of	Hankerd Rd	Gravel	5/11/05	534	64 / 51
North Lake Rd		Hankerd Rd	Gravel	5/9/05		32 / 31
North Territorial		Hadley Rd	Paved	6/15/09		378 / 441
North Territorial		Dexter Townhall	Paved	5/28/09		411 / 458
North Territorial	East of	Dexter Townhall	Paved	5/28/09	3,992	342 / 386
North Territorial	West of	Dexter-Pinckney Rd	Paved	5/28/09	4,512	387 /431
North Territorial	East of	Dexter-Pinckney Rd	Paved	6/15/09	9,058	827 / 918
North Territorial	West of	Huron River Dr	Paved	5/28/03	9,139	896 / 940
Quigley	West of	Dexter Townhall Rd	Gravel	8/8/05	68	4 / 12
Riker	North of	Colby Rd	Gravel	8/10/09	271	12 / 35
Riker	South of	Colby Rd	Gravel	8/10/09	306	21 / 37
Stinchfield Woods	West of	Toma Rd	Gravel	8/16/05	80	8 / 11
Stinchfield Woods		Toma Rd	Gravel	8/8/05		22 / 30
Stofer		N. Territorial Rd	Paved	8/3/09		291 / 400
Toma		Stinchfield Wds Rd (N)	Gravel	5/11/05		17 / 21
Toma		Stinchfield Wds Rd (S)	Gravel	5/12/05	198	21 / 22
Waterloo		McKinley Rd	Gravel	5/9/05		34 / 47
Waterloo		McKinley Rd	Gravel	5/5/05		38 / 57
		Island Lake Rd	Gravel	5/9/05		72 / 80
		inty Road Commissio				

Source: Washtenaw County Road Commission and Midwestern Consulting

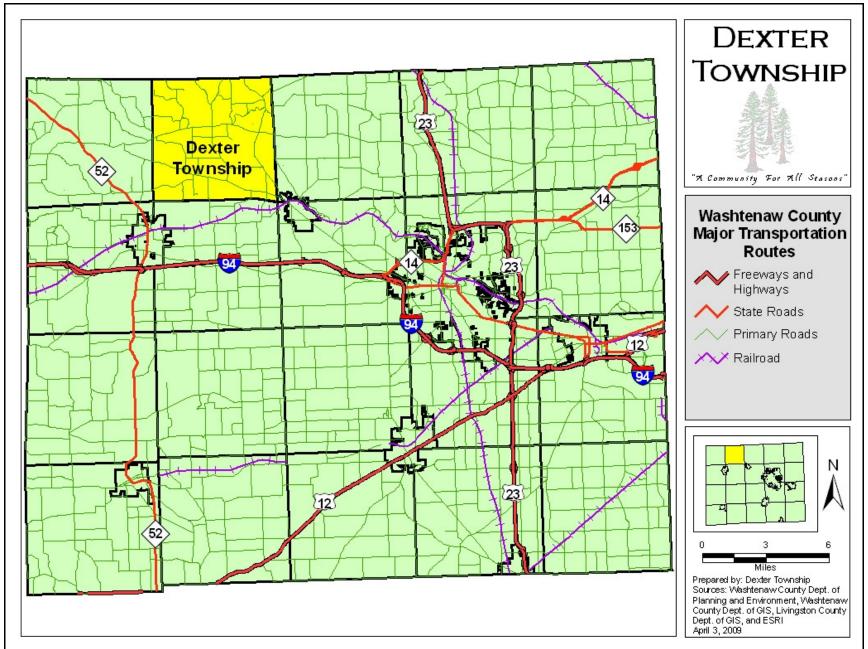
**Map 19: Dexter Township Road Classifications and Traffic Counts** 



Map 20: Dexter Township Region Transportation Network



**Map 21: Washtenaw County Major Transportation Routes** 



# 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 the 2000 U.S. Census (**Table 21** and **Map 22**), approximately 93.6% of employed Dexter Township residents worked outside of the township. The City of Ann Arbor was by far the largest employment center for Dexter Township residents. Dexter Township was the 3<sup>rd</sup> highest place of employment. This is likely attributed to local agriculture, the local nature of township businesses, and residents who work from their home.

The vast majority of employed Dexter Township residents – 77.7% – worked in Washtenaw County in 2000. Approximately 38.5% worked in the *Dexter Township Region*. As of the date of approval of this Plan, the 2010 Census data for this topic has not yet been released. Once this data is released, a subsequent amendment to this Plan will include it.

**Table 21: Employment Location for Dexter Township Residents, 2000** 

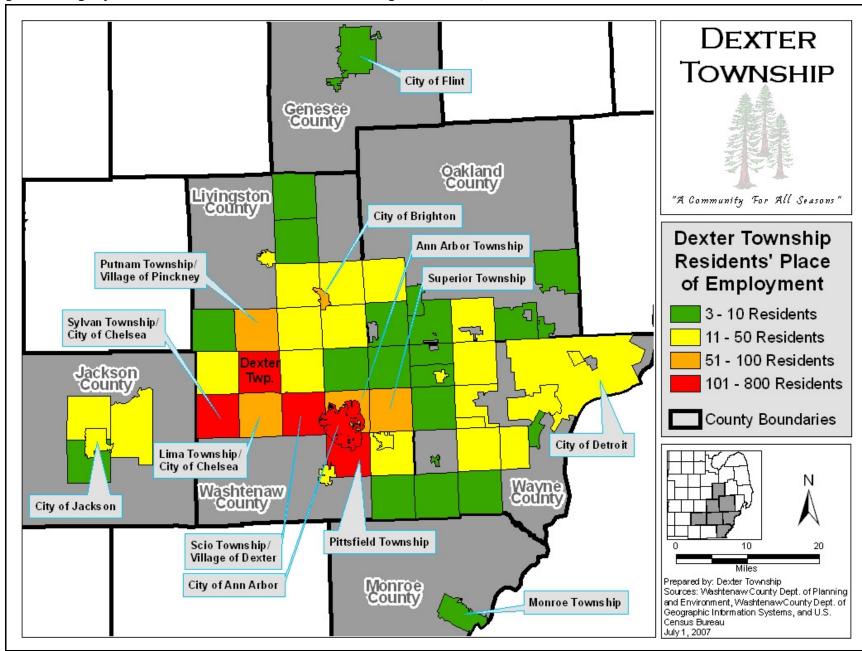
			Percentage of Dexter
		Number of	Township
Place of Employment	County	Employees	Employees
City of Ann Arbor	Washtenaw	800	29.4%
Scio Twp./Village of Dexter	Washtenaw	536	19.7%
Dexter Twp.	Washtenaw	173	6.4%
Sylvan Twp./City of Chelsea	Washtenaw	158	5.8%
Pittsfield Twp.	Washtenaw	118	4.3%
Ann Arbor Twp.	Washtenaw	73	2.7%
Lima Twp.	Washtenaw	65	2.4%
Superior Twp.	Washtenaw	62	2.3%
Putnam Twp./Village of Pinckney	Livingston	60	2.2%
City of Brighton	Livingston	55	2.0%
Detroit	Wayne	44	1.6%
Livonia	Wayne	41	1.5%
Ypsilanti Twp.	Washtenaw	29	1.1%
Genoa Twp.	Livingston	28	1.0%
City of Jackson	Jackson	23	0.8%
Brighton Twp.	Livingston	22	0.8%
City of Howell	Livingston	21	0.8%
Webster Twp.	Washtenaw	21	0.8%
City of Ypsilanti	Washtenaw	21	0.8%
Westland	Wayne	20	0.7%
Milford Twp.	Oakland	19	0.7%
Farmington Hills	Oakland	17	0.6%
City of Saline	Washtenaw	17	0.6%

Table 21: Employment Location for Dexter Township Residents, 2000 (continued)

			Percentage of Dexter
		Number of	Township
Place of Employment	County	Employees	Employees
Romulus			0.6%
Lyndon Twp.	Washtenaw	16	0.6%
Dearborn	Wayne	16	0.6%
Hamburg Twp.	Livingston	14	0.5%
City of Plymouth	Wayne	14	0.5%
Leoni Twp.	Jackson	12	0.4%
Highland Park	Wayne	12	0.4%
Taylor	Wayne	12	0.4%
Wayne	Wayne	12	0.4%
Blackman Twp.	Jackson	11	0.4%
Green Oak Twp.	Livingston	11	0.4%
Novi	Oakland	10	0.4%
Huron Twp.	Wayne	10	0.4%
Southfield	Oakland	9	0.3%
Northfield Twp.	Washtenaw	9	0.3%
Plymouth Twp.	Wayne	9	0.3%
Lyon Twp.	Oakland	8	0.3%
Oak Park	Oakland	8	0.3%
Augusta Twp.	Washtenaw	8	0.3%
Summit Twp.	Jackson	7	0.3%
Midland	Midland	7	0.3%
Salem Twp.	Washtenaw	7	0.3%
Deerfield Twp.	Livingston	6	0.2%
Oceola Twp.	Livingston	6	0.2%
Monroe Twp.	Monroe	6	0.2%
Belleville	Wayne	6	0.2%
Flint	Genesee	5	0.2%
Unadilla Twp.	Livingston	5	0.2%
Wixom	Oakland	5	0.2%
Canton Twp.	Wayne	5	0.2%
Northville Twp.	Wayne	5	0.2%
Troy	Oakland	4	0.1%
Allen Park	Wayne	3	0.1%
Sumpter Twp.	Wayne	3	0.1%
Totals		2,721	100.0%
Employees in the Dexter	r Twp. Region	1,048	38.5%
Employees in Washtena	•	2,113	77.7%

Source: U.S. Census Bureau. These numbers were obtained using 2000 Census data from the long form, which was sent to 1-in-6 households. Therefore, the results do not represent 100% of the employed population of Dexter Township, but rather a projected result based on the responses.

Map 22: Employment Location for Dexter Township Residents, 2000



### **Public Transportation**

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 Village of Dexter. WAVE provides a low-cost public transportation for residents of these municipalities. It operates a fixed bus route schedule that runs between the City of Chelsea, the Village of Dexter, and the east end of Scio Township. From the bus stop at the east end of Scio Township, riders can transfer 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

In September 2006, the Washtenaw Area Transportation Study (WATS) published the *Non-Motorized Plan for Washtenaw County*. The general purpose of the Non-Motorized Plan is to promote adequate facilities for bicycles, pedestrians, and other non-motorized system uses in order to reduce congestion, improve health, improve air quality, and provide an elevated level of connectivity to residents of Washtenaw County. The Non-Motorized Plan included the following data for each municipality in Washtenaw County:

- A current inventory of non-motorized infrastructure (**Table 22**);
- The amount of non-motorized infrastructure needed (**Table 23**), based on policy guidelines within the Plan; and
- The deficiencies in non-motorized infrastructure (**Table 24**), based on the National Functional Classification (NFC) System, public input, and missing pieces of existing facilities.

According to the Non-Motorized Plan, Dexter Township contains 2.68 miles of non-motorized infrastructure (**Table 22**). The 2.68 mile "Off-Road Bike Trail" is located within the Hudson Mills Metropark. While this distance has since increased by 1.5 miles (to 4.18 miles) with the partial construction of Segment C of the Washtenaw County border-to-

border trail, (see **Table 25**) there are no other non-motorized paths (i.e. sidewalks, bicycle facilities<sup>2</sup>, and paved shoulders) in Dexter Township.

Table 22: Current Inventory of Non-Motorized Infrastructure (miles)

	Sidewalks	Off- Road Bike Trails		3 ft.+ Paved Shoulder
Dexter Township	0	2.68	0	0
Dexter Twp. Region (Washtenaw County portion only)	67.8	3.93	42.88	19.87

Source: WATS

**Table 23: Non-Motorized Infrastructure Needed (miles)** 

	Urban	Urban	Rural	Rural
	Pedestrian	Bicycle	Pedestrian	Bicycle
Dexter Township	42.66	21.74	38.24	0
Dexter Twp. Region	282.3	118.22	338.36	14
(Washtenaw County portion only)	202.5	110.22	330.30	17

Source: WATS

**Table 24: Current Non-Motorized Deficiency (miles)** 

	Deficient (i.e. nonexistent) Sidewalk	Deficient Bicycle Facilities or Rural Pedestrian Facilities
Dexter Township	21.33	59.98
Dexter Twp. Region	290.33	363,27
(Washtenaw County portion only)	290.33	303.27
G TTT L TOG		

Source: WATS

To remedy many of these deficiencies, the Non-Motorized Plan recommends several specific non-motorized transportation improvements in Washtenaw County. While all of the recommended projects in the County are in the Non-Motorized Plan, the projects recommended for Dexter Township are in **Table 25**.

<sup>2</sup> According to the *Non-Motorized Plan for Washtenaw County*, a "bike facility" includes striped bike lanes and shared use paths.

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Table 25: Non-Motorized Projects Recommended in **Dexter Township** 

Length Deficiency

Project Name	Project Limits	Proposed Work	(miles)	Addressed
	Fleming to N.			
Dexter-Pinckney	County Line	Add wide shoulder	4.80	No bike access
	Dexter Village to			Deficient bike
Dexter-Pinckney	Horseshoe Bend	Add wide shoulder	1.90	access
	Island Lake to N.			
Dexter Townhall	County Line	Add wide shoulder	5.21	No bike access
	Island Lake to N.			
Hadley	County Line	Add wide shoulder	4.26	No bike access
	N. Territorial to N.			
Hankerd	County Line	Add wide shoulder	2.37	No bike access
	Dexter Village to			
Island Lake	Werkner	Add wide shoulder	6.63	Several
	Dexter-Chelsea to			
Island Lake	Dexter-Pinckney	Add wide shoulder	0.35	No bike access
	Island Lake to			
Lima Center	Dexter-Chelsea	Add wide shoulder	2.37	No bike access
	Dexter-Townhall			
N. Territorial	to W. County Line	Add wide shoulder	6.87	No bike access
Border to Border	Livingston Co. to	Non-Motorized Path		
Segment A	Bell Road	County Connector	1.70	County Connector
				County Connector
Border to Border	Bell Road to North	Non-Motorized Path		
Segment B	Territorial Rd.	County Connector	1.30	County Connector
Border to Border	North Territorial	Non-Motorized Path		
Segment C	Rd. to Dexter	County Connector	4.70	County Connector

Source: WATS

The border-to-border trail referenced in **Table 25** is a proposed 35-mile shared-use path that will link the open spaces of the Huron River corridor within Washtenaw County from north of Portage Lake in Dexter Township to east of Ford Lake in Ypsilanti Township. The partially implemented trail will also link together the Village of Dexter and the Cities of Ann Arbor and Ypsilanti. The eastern half of this trail that links Ann Arbor to Ypsilanti is already in existence.

Segments A and B of the trail referenced in **Table 25** are entirely within Dexter Township. About half of Segment C is within Dexter Township, with the other half in Webster Township and the Village of Dexter. Although Segments A and B are still in the conceptual phase, a 1.5-mile portion of Segment C was constructed in 2007-2008. This portion runs southward from the existing Hudson Mills hike-bike trail at North

Territorial Road and ends north of the Hudson Mills Golf Course. The remaining portion of Segment C, which continues southward into the Village of Dexter, is proposed for construction in the near future.

### **Current Land Use**

The existing land uses in this section were determined using the most recent (2000) Michigan Land Cover/Use Classification System, which is a multi-level, hierarchical system that classifies Michigan's land cover/use into approximately 500 categories. The assigned designations of land cover/use are, in large part, based on assumptions made in analyzing aerial imagery. SEMCOG provides land use/cover data for the entire 7-county SEMCOG region, and updates the data about every 10 years.

Because the land use/cover data in **Tables 26-27** and **Maps 23 and 25** is based on interpretations of aerial imagery, it will not be as accurate as an on-site assessment. For example, the wetland boundaries shown in **Maps 15 and 20** are different from each other because they use different information sources. However, the land use/cover data is highly useful for comparing differences in land uses over time.

# Land Use of Dexter Township, Dexter Township Region, Washtenaw County, and SEMCOG Region, 2000

There are many similarities and differences between how the land is used in Dexter Township compared to the Dexter Township Region. The major differences in land use/cover can easily be explained. For example, the Chrysler Chelsea Proving Grounds (located in Sylvan Township) accounts for almost 73% of the Industrial land use/cover in the Dexter Township Region, but most municipalities will have a much lower percentage of Industrial land use/cover (Table 26) and indeed Dexter Township has none. Likewise, Dexter Township's percentage of Cultural, Outdoor Recreation, and Cemetery land use/cover is higher than the Dexter Township Region average because of the presence of Hudson Mills Metropark, which is located on the east side of Dexter Township. While Dexter Township is generally thought of as an agricultural community, its percentage of Active Agriculture land use/cover is lower than that of the Dexter Township Region, Washtenaw County, and the SEMCOG Region. This discrepancy can partially be attributed to the fact that the percentage of Woodland and Wetland and Water (i.e. areas either difficult or impossible to farm) is higher in Dexter Township than in the other areas.

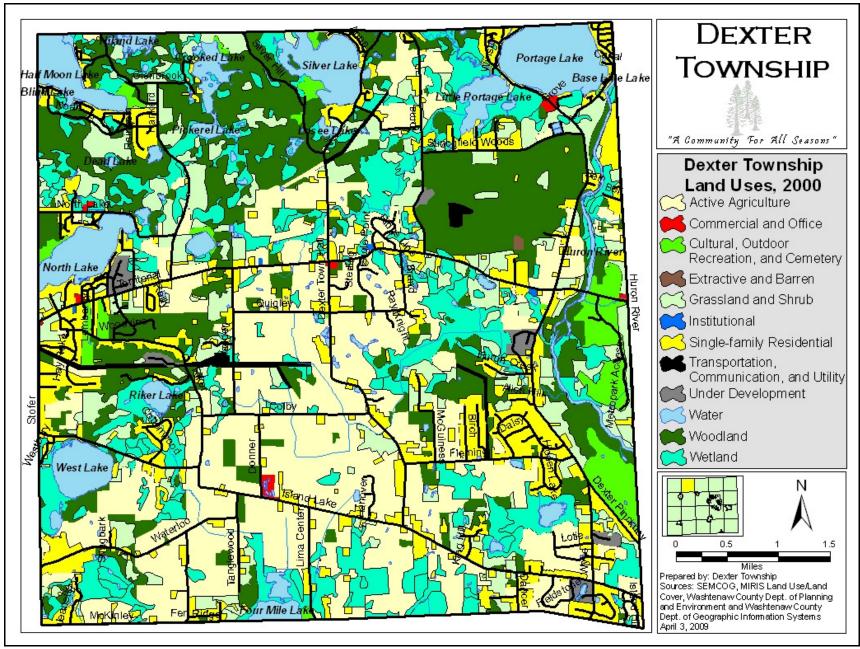
Table 26: Land Use/Cover of Dexter Twp., *Dexter Twp. Region*, Washtenaw County, and SEMCOG Region

Landillaa	Dexter	Dexter Twp.	Washtenaw	SEMCOG
Land Use	Twp.	Region	County	Region
	3,122	32,733	67,064	719,003
Single-Family Residential	(15%)	(16%)	(14%)	(24%)
	0	196	3,480	34,807
Multiple-Family Residential	(0%)	(<1%)	(1%)	(1%)
	53	693	4,600	68,067
Commercial and Office	(<1%)	(<1%)	(1%)	(2%)
	10	881	5,356	48,365
Institutional	(<1%)	(<1%)	(1%)	(2%)
	0	4,868	8,656	81,192
Industrial	(0%)	(2%)	(2%)	(3%)
Transportation,	161	1,366	5,160	63,545
Communication, and Utility	(1%)	(1%)	(1%)	(2%)
Cultural, Outdoor	620	2,953	7,779	75,141
Recreation, and Cemetery	(3%)	(1%)	(2%)	(3%)
	5,640	61,336	191,140	924,266
Active Agriculture	(27%)	(30%)	(41%)	(31%)
	2,321	25,283	59,040	310,081
Grassland and Shrub	(11%)	(12%)	(13%)	(11%)
	7,483	62,494	93,366	493,243
Woodland and Wetland	(35%)	(31%)	(20%)	(17%)
	8	286	1,617	18,375
Extractive and Barren	(<1%)	(<1%)	(<1%)	(1%)
	1,645	8,916	10,133	67,171
Water	(8%)	(4%)	(2%)	(2%)
	159	1,455	5,141	31,945
Under Development	(1%)	(1%)	(1%)	(1%)
	21,222	203,460	462,533	2,935,201
Total Acres	(100%)	(100%)	(100%)	(100%)

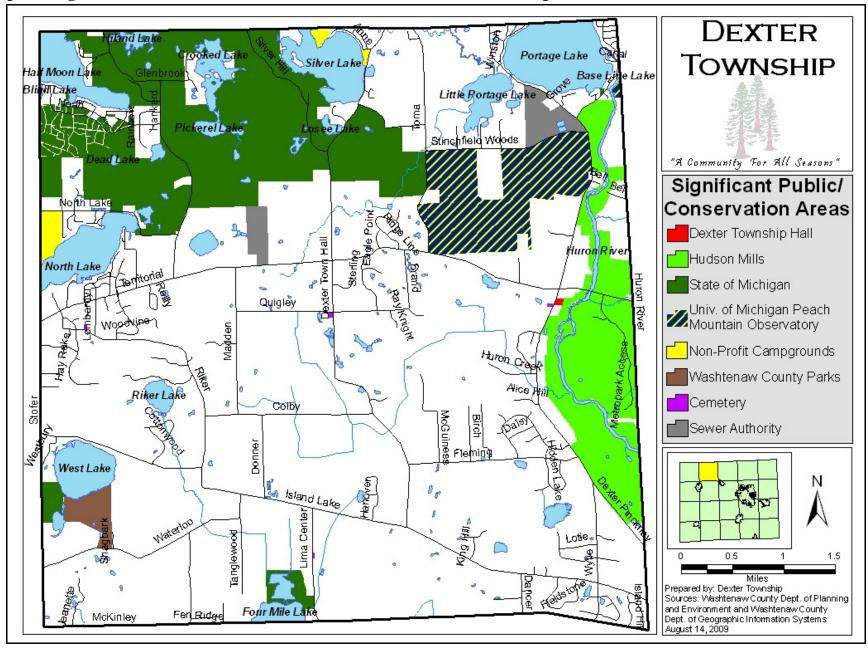
Source: SEMCOG Land Use/Land Cover

The areas shown in Map 24 include the major public and conservation areas in Dexter Township that are tax exempt. As you can see, the public and conservation areas dominate the landscape in the northern one-third of Dexter Township and east of Dexter-Pinckney Road. Though some areas in Map 24 are classified as Cultural, Outdoor Recreation, and Cemetery in Map 23 (e.g. the Hudson Mills Metropark trail and the Hudson Mills Golf Course), many of the tax exempt conservation areas owned by the Huron-Clinton Metropolitan Authority, the State of Michigan (e.g., the Pinckney State Recreation Area), and the University of Michigan are classified as Woodland, Wetland, and Grassland and Shrub. Because the areas in Map 24 are tax exempt, they are unlikely to be developed in the near future.

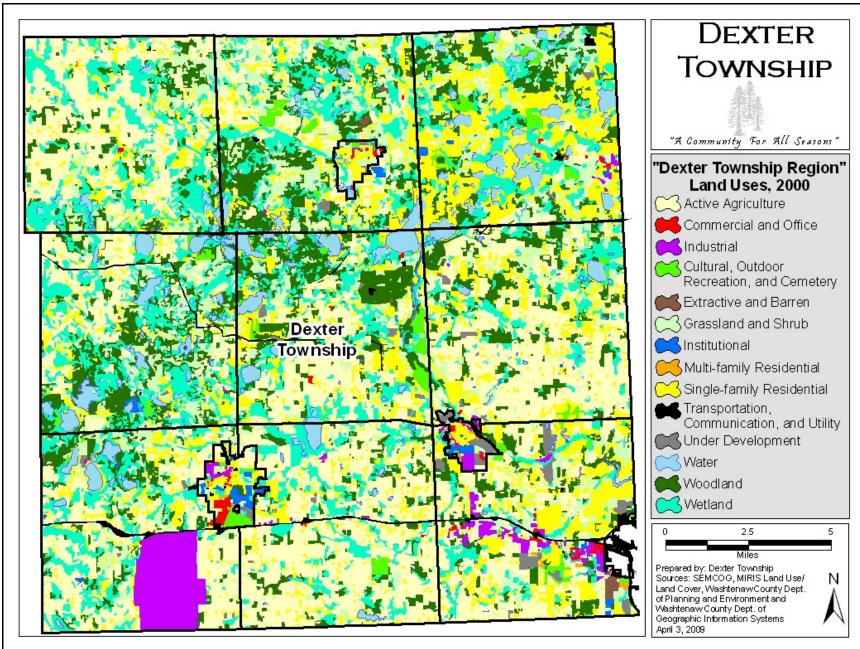
Map 23: Dexter Township Land Use/Land Cover, 2000



Map 24: Significant Public and Conservation Areas in Dexter Township



Map 25: Dexter Township Region Land Use/Land Cover, 2000



### Land Use Changes, 1990 - 2000

From 1990-2000, Dexter Township, the *Dexter Township Region*, Washtenaw County, and the SEMCOG Region have all seen steady increases in the percentage of land devoted to Single-Family Residential use (**Table 27**). Conversely, all of these areas have seen a similar decline in the percentage of land used for Active Agriculture. Using the *Dexter Township Region* as an example, the amount of land devoted to Single-Family Residential use increased by 8,375 acres from 1990-2000 – an increase of almost 34.4%. At the same time, the amount of land devoted to Active Agriculture use decreased by 8,162 acres. This is not to suggest that all new land used for Single-Family Residential was previously used as Active Agriculture; however, there is a correlation between the increase in land used for Single-Family Residential and the decrease in land used for Active Agriculture in Dexter Township, the *Dexter Township Region*, Washtenaw County, and the SEMCOG Region.

While the amount of land devoted to Single-Family Residential use in the Dexter Township Region increased by almost 34.4% from 1990-2000, the number of households increased by about 22%. This suggests that, on average, a single-family residence constructed after 1990 occupies more land than a single-family residence constructed before 1990. The lowering of residential densities can be attributed to a number of factors. Among these factors are market preferences for larger lot sizes. In the 2007 Dexter Township Community Survey, 50.3% of respondents chose "Rural/Country Living" as the primary reason they moved to Dexter Township. Another factor is local zoning regulations. Most of the land in Dexter Township is zoned for 2-acre or 5-acre minimum lot sizes. However, since 2003 the Dexter Township Zoning Ordinance has allowed for Open Space Communities - where density bonuses are granted if a residential development preserves open space and exhibits superior design. The Open Space Communities program is discussed in succeeding sections of this Plan.

Table 27: Land Use/Cover of Dexter Twp., Dexter Twp. Region, Washtenaw County, and SEMCOG Region, 1990-2000

	Year 1990	Year 2000	Year 1990	Year 2000	Year 1990	Year 2000	Year 1990	Year 2000
	Dexter Twp.	Dexter Twp.	Dexter Twp. Region	Dexter Twp. Region	Washtenaw County	Washtenaw County	SEMCOG Region	SEMCOG Region
Single-Family Residential	2,542 (12%)	3,122 (15%)	24,358 (12%)	32,733 (16%)	51,723 (11%)	67,064 (14%)	600,818 (20%)	719,003 (24%)
Multiple-Family Residential	0 (0%)	0 (0%)	68 (<1%)	196 (<1%)	2,703 (1%)	3,480 (1%)	28,540 (1%)	34,807 (1%)
Commercial and Office	57 (<1%)	53 (<1%)	554 (<1%)	693 (<1%)	3,929 (1%)	4,600 (1%)	59,891 (2%)	68,067 (2%)
Institutional	5 (<1%)	10 (<1%)	522 (<1%)	881 (<1%)	4,718 (1%)	5,356 (1%)	44,877 (2%)	48,365 (2%)
Industrial	0 (0%)	0 (0%)	4,579 (2%)	4,868 (2%)	7,527 (2%)	8,656 (2%)	70,768 (2%)	81,192 (3%)
Transportation, Communication, and Utility	156 (1%)	161 (1%)	1,347 (1%)	1,366 (1%)	5,114 (1%)	5,160 (1%)	60,503 (2%)	63,545 (2%)
Cultural, Outdoor Recreation, and Cemetery	589 (3%)	620 (3%)	2,179 (1%)	2,953 (1%)	6,318 (1%)	7,779 (2%)	61,089 (2%)	75,141 (3%)
Active Agriculture	6,555 (31%)	5,640 (27%)	69,498 (34%)	61,336 (30%)	221,266 (48%)	191,140 (41%)	1,069,358 (36%)	924,266 (31%)
Grassland and Shrub	2,062 (10%)	2,321 (11%)	24,665 (12%)	25,283 (12%)	49,765 (11%)	59,040 (13%)	337,100 (11%)	310,081 (11%)
Woodland and Wetland	7,496 (35%)	7,483 (35%)	65,196 (32%)	62,494 (31%)	95,020 (21%)	93,366 (20%)	505,984 (17%)	493,243 (17%)
Extractive and Barren	8 (<1%)	8 (<1%)	382 (<1%)	286 (<1%)	1,339 (<1%)	1,617 (<1%)	15,471 (1%)	18,375 (1%)
Water	1,640 (8%)	1,645 (8%)	8,872 (4%)	8,916 (4%)	10,062 (2%)	10,133 (2%)	66,250 (2%)	67,171 (2%)
Under Development	111(1%)	159 (1%)	1,242 (1%)	1,455 (1%)	3,049 (1%)	5,141 (1%)	17,342 (1%)	31,945 (1%)
Total Acres	21,221 (100%)	21,222 (100%)	203,462 (100%)	203,460 (100%)	462,533 (100%)	462,533 (100%)	2,935,201 (100%)	2,935,201 (100%)

Source: SEMCOG

# **Current Zoning**

The current Dexter Township Zoning Ordinance became effective on May 1, 2003. Since that time, the Township has made several text amendments and one map amendment, which corrected a coloring error on the Official Zoning Map. The Zoning Ordinance and Official Zoning Map (Map 26) have generally supported the existing land use and physical characteristics of the Township. The current number of acres per zoning district is shown in **Table 28**.

#### Public Lands District

It is the intent of the Public Lands (PL) District to accommodate public facilities providing administrative and public services functions while also protecting special and important natural resources, the enjoyment and protection of which is of great public interest to Dexter Township, the State of Michigan, and other public entities. The majority of lands within this District are comprised of public holdings which, collectively, form the Pinckney State Recreation Area and other public park and/or resource conservation areas. Much of the land within this District is characterized by extensive wetland and woodland environments. Together, these public resources are critical in providing for wildlife habitats, water and air purification, flood control, and recreation opportunities, and support the desired rural character of the Township. It is also the intent of this District to carefully review and limit the introduction of land uses which will undermine the intent, quantity, quality and value of the natural resources contained within. About 24.3% (4,752.52 acres) of land in Dexter Township is currently zoned PL.

#### Recreation Conservation District

It is the intent of the Recreation Conservation (RC) District to provide opportunities for certain land uses to be situated among abundant natural resources, such as woodlands, wetlands, and water bodies, due to the unique reliance of such land uses on such natural resources, including hunting camps and shooting ranges. This District is intended to permit only those land uses which are comparatively low in intensity and require very limited alteration of the natural landscape. This district permits residential development but only to the extent that it is of a

comparatively low density character in light of this District's intent to preserve natural resources and assure adequate buffering between such residential development and the other permitted uses in the District. About 3.19% (623.01 acres) of land in Dexter Township is currently zoned RC.

#### Agriculture District

It is the intent of the Agriculture (AG) District to preserve, encourage, and provide opportunities for agriculture and the retention of land areas in Dexter Township which are well suited for production of food and fiber, while also providing opportunities for comparatively low density rural residential lifestyles and development patterns which encourage the preservation of open spaces, including farmland, and other natural resources of the Township and the Township's rural character. It is also the intent of the AG District to provide opportunities for the conversion of farmland and vacant land to residential use of an overall rural character where farming may no longer be viable or desirable to the landowner. About 22.3% (4,361.15 acres) of land in Dexter Township is currently zoned AG.

#### Rural Residential District

It is the primary intent of the Rural Residential (RR) District to encourage and provide opportunities for comparatively low density rural residential lifestyles and development patterns which preserve open spaces, including farmland, and other natural resources of the Township and the Township's rural character. About 47.25% (9,242.78 acres) of land in Dexter Township is currently zoned RR.

#### Lakes Residential District

It is the primary intent of the Lakes Residential (LR) District to provide opportunities for residential development along the principal lakes of Dexter Township. The surface waters of the Township are valuable assets and resources to the citizens of Dexter Township, Washtenaw County, and the State of Michigan. The purpose of this District is to recognize and permit suburban development patterns in association with some of the Township's lake areas, while assuring the maintenance of safe and healthful conditions, protecting against water pollution, reducing hazards to persons and damage to property as a result of flood conditions, protecting fish and other aquatic life, and controlling development so as to preserve the economic and natural environmental value of these water resources. This District is established in recognition of existing suburban and urban lake area development patterns and land divisions. This District is not intended to permit development upon lots of lesser size than required by the Zoning Ordinance unless such properties were lots of record as of March 27, 1973. About 2.13% (416.04 acres) of land in Dexter Township is currently zoned LR.

#### Mobile Home Park Residential District

It is the intent of the Mobile Home Park Residential (MHPR) District to provide opportunities for higher density single family residential development, in the form of mobile home parks, to meet the varied housing needs of the Township's present and future residents while similarly limiting excessive public costs and demands placed upon public facilities and services which may be associated with such housing developments. It is the intent of this district that all mobile home parks be adequately served by public facilities and services and provide for a healthy residential environment. Currently, none of the land in Dexter Township is zoned MHPR and, since the effective date of the current Zoning Ordinance, Dexter Township has not received any applications to rezone property to MHPR.

#### Common Use Residential District

The intent of the Common Use (CU) Residential District is to provide opportunities for the shared use of private riparian land by residents of a development project which such riparian land is intended to serve. This

District is intended to manage the use of such riparian land and control the type and intensity of use of the riparian land, protect the environmental quality of such land and abutting water bodies, and protect adjacent land uses from the negative impacts of such common riparian land usage. It is the intent of the Ordinance that, except in the case of Open Space Communities, no land will be used for shared or common riparian purposes unless specifically zoned for such use under the classification of this District. About .09% (17.31 acres) of land in Dexter Township is currently zoned CU.

### Open Space Communities Overlay District

The Open Space Communities (OSC) District is established as an overlay district on top of all Agricultural and Residential Districts. Land within these Districts may be developed according to the more traditional provisions of the base zoning district or according to the more flexible OSC provisions. It is the purpose of the OSC District to provide opportunities for residential development which, because of the more flexible standards available to OSCs, more effectively encourage the preservation of the Township's natural resources, sensitive environmental areas, and rural character. The regulations of this District accomplish these purposes, in part, by providing for the grouping or clustering of new homes on smaller lots than typically required by the zoning district within which the OSC is proposed to be located, so that the remainder of the site can be preserved as open space or for agricultural use. This more flexible residential development option is available through the use of planned unit development legislation to, among other things, encourage the use of Township land in accordance with its character and adaptability; assure the permanent preservation of farmland, open space, woodlands, and other natural resources; and allow innovation and greater flexibility in the design of residential developments.

Density bonuses for preservation of open space are determined by a formula established in the Zoning Ordinance for each residential district. Additional density bonuses can be attained in the OSC by preserving more open space than is otherwise required and exhibiting superior design features. These superior design features include preserving sensitive natural resources, dedicating usable open space to a public

entity or non-profit land conservancy, preserving rural character along public road frontages, placing open spaces contiguous to other existing open spaces that are permanently preserved, allowing farm operations within the open space, placing the dwellings and open space strategically to minimize conflicts between ongoing farming activities and future residents of the OSC, and designing the storm water management system that relies upon natural systems to the greatest extent possible.

Since the OSC Overlay District was established in 2003, most, if not all, of the new residential site plan applications in Dexter Township have been OSCs. To date, the Planning Commission has granted final site plan approval to 4 OSCs. These 4 OSCs consist of 176 housing units and 189.7 acres of preserved open space.

#### General Commercial District

The General Commercial (C-1) District is intended to provide for retail, service, and office establishments which primarily serve the day-to-day convenience and service needs of Dexter Township residents and visitors. The District is intended to provide opportunities for day-to-day convenience shopping and services compatible with the predominantly rural character of the Township. Support for the preservation of the community's rural character should be embodied in architectural design and building scale, building materials, signage, landscaping, buffering, and lighting. About .75% (147.27 acres) of land in Dexter Township is currently zoned C-1. Approximately 117.75 of these acres (80%) are located around the intersection of North Territorial Road and Dexter-Pinckney Road. While most of the commercially-zoned land outside of this intersection is developed.

# Commercial - Planned Unit Development Overlay District

It s the purpose of the Commercial – Planned Unit Development (C-PUD) Overlay District to establish provisions for the submission, review, and approval of applications for specific development proposals of a predominantly commercial character that rely on more flexible land use and development standards than would normally be permitted by the

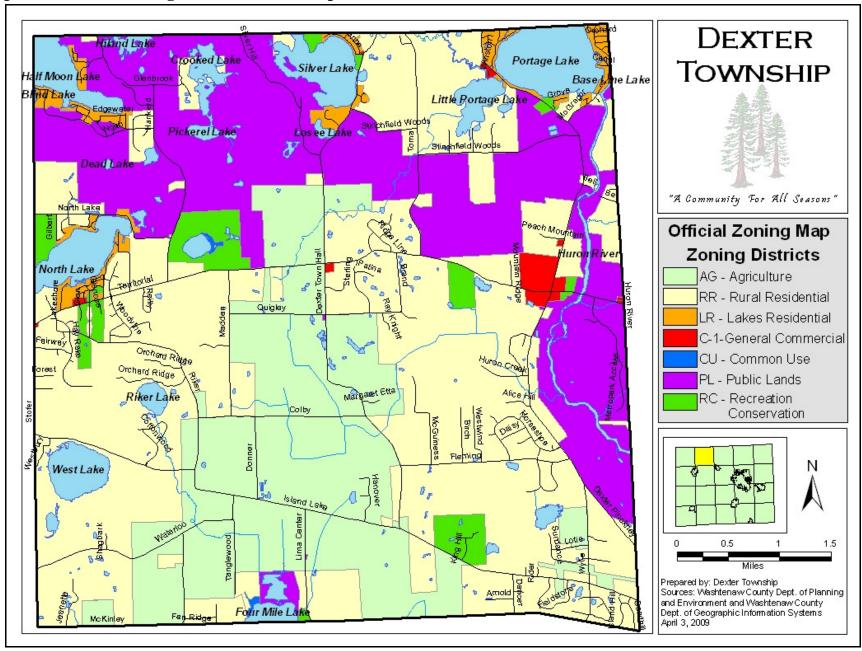
typical standards of the C-1 District. It is also the purpose of this district that such development be established only where it is determined that approval supports the overall objectives of the Ordinance and results in a benefit to the community that would not otherwise be realized under traditional C-1 District provisions. Such benefit may involve innovation in land use and variety in design, layout, and type of structures constructed; economy and efficiency in the use of land, natural resources, energy, and the provision of public services and utilities; useful open space; and better housing, employment, and shopping opportunities. The provisions of this District are intended to result in land use and development substantially consistent with the planned development pattern for the Township, with appropriate modifications and departures from generally applicable Ordinance requirements made in accordance with established standards provided in the Ordinance.

**Table 28: Current Zoning of Dexter Township** 

	Number of Acres
PL – Public Lands District	4,752.52 (24.30%)
RC – Recreation Conservation District	623.01 (3.19%)
AG – Agriculture District	4,361.15 (22.30%)
RR – Rural Residential District	9,242.78 (47.25%)
LR – Lakes Residential District	416.04 (2.13%)
MHPR – Manufactured Home Park Residential District	0.00 (0.00%)
CU – Common Use Residential District	17.31 (0.09%)
C-1 – General Commercial District	147.27 (0.75%)
Total Acres	19,560.08 (100%)

Source: Dexter Township Zoning Ordinance and Official Zoning Map

**Map 26: Current Zoning of Dexter Township** 



# **Zoning Build-Out Analysis**

The purpose of conducting a zoning build-out analysis is to estimate the number of residents and households in Dexter Township if it were completely built-out according to current zoning regulations. A build-out analysis is most useful when a community is developing or updating a comprehensive plan or considering alternative zoning schemes. The primary focus of a build-out analysis is usually residential development, but it can also be used to project future commercial and industrial development. The reasonableness of the result is dependent on the assumptions used in the analysis. The advantages, disadvantages, and limitations of a build-out analysis are as follows:

#### **Advantages:**

- Provides a maximum range of households and population if a policy, plan, or ordinance is implemented. This is useful for analyzing impacts on the community and possible future service needs.
- May promote more rational thinking when existing land use policies are evaluated or new ones are prepared.
- Helps policy-makers better envision the consequences of their decisions by putting a future end-state into a format where it can be compared to the present.

#### **Disadvantages:**

- The number of persons per household may change in the future and significantly alter the build-out population.
- The most current build-out analysis becomes more outdated as newer data and information becomes available and more refined methodology is adopted.

#### Limitations

• The build-out analysis is only an estimate of what will happen in the future based on the information at present. As such, the analysis will not actually reflect final conditions because other factors will change over time (e.g. change in land use regulations, development design, alternative lifestyles, housing demand, etc.).

# **Build-Out Analysis by Dexter Township Planning Staff**

Before proceeding with the build-out analysis results, it is important to document the methodology behind these results. The build-out analysis, conducted by Dexter Township staff, followed these steps:

#### Step 1: Calculate the amount of buildable land in Dexter Township

Using Geographic Information System (GIS) software, buildable land can be identified and calculated with relative accuracy. This process is as follows:

- **A.** Using a layer containing all of Dexter Township's parcels, create a layer of buildable parcels by deleting all parcels that are right-of-ways, dedicated parks, common areas and/or publicly owned.
- **B.** From this new layer of buildable parcels, delete the following areas that are typically deemed unbuildable:
  - i. Wetlands per the delineation of the MDNRE.
  - **ii.** Lakes, ponds, and rivers.
  - **iii.** Currently developed land. This includes, but is not limited to, residential, commercial, office, institutional, transportation, utility, and communications land uses. The existing land uses in this part of the analysis were determined using the most recent (2000) Michigan Land Cover/Use Classification System mentioned previously.
  - **iv.** Land and parcels that have received site plan approval, but have not yet been developed. At the time of this analysis, there were approximately 340 units that had been approved by the Planning Commission, but not yet developed. This number will be added to the final build-out number.

The layer now represents undeveloped, privately-owned upland.

#### Step 2: Reduce land area for roads and utility rights-of-way

A percentage of the acreage remaining from Step 1 is removed to account for future road and utility rights-of-way. This percentage is called a "reduction factor." According to SEMCOG, the recommended reduction factor is 8% for build-out analysis of residences between 1-5 acres per unit.

# Step 3: Associate zoning and density for all buildable land to determine the number of households at build-out

The Dexter Township Official Zoning Map was used to determine residential development densities. The number of buildable acres in each residential zoning district was multiplied by the applicable zoning density. For example, if 1 unit per 2 acres were allowed, the zoning density would be 0.5. Residential zoning districts are Agriculture (AG), Rural Residential (RR), and Recreation Conservation (RC). Lakes Residential (LR) was not used because that district is almost built-out.

After multiplying the number of buildable acres by the applicable zoning density and adding the 340 approved dwelling units mentioned in Step 1.B.iv, the result is the number of additional dwelling units that Dexter Township can accommodate if it becomes built-out under the current zoning standards. Under the conventional zoning, Dexter Township can accommodate approximately 2,283 additional dwelling units. However, a more realistic scenario would be to assume that half of the buildable land will be developed using the OSC Overlay District. Under this scenario, where half of the buildable land is developed using the OSC Overlay District and half is developed under conventional zoning standards, the number of additional dwelling units at build-out is 3,433 (Table 29). Combined with the number of households in 2010 (2,225), the total number of dwelling units at build-out under this scenario would be 5,658 (a 154.3% increase from 2010). This build-out is far higher than the 2035 household projections described on page 27 of this Plan (e.g., SEMCOG projects 2,565 households and the alternative model using the growth rate from 1980-1990 projects 3,638 households).

#### Step 4: Determine future Township population at build-out

Using the total number of dwelling units at build-out under the 50% conventional zoning/50% OSC Overlay District zoning scenario (5,658 dwelling units) and multiplying it by SEMCOG's projection of Dexter Township's average household size in 2035 (2.51 persons per household), the future population of Dexter Township at build-out would be approximately 14,202 residents. This build-out is far higher than the 2035 population projections described on page 26 (e.g., SEMCOG projects 6,440 residents and the alternative model using the growth rate from 1980-1990 projects 8,365 residents). As mentioned previously, the build-out population is based on several variables, and it is important to continually update the build-out analysis as newer data, information, and methodology becomes available.

**Table 29: Dexter Township Build-Out Analysis Results** 

Table 25. Dexter Township Band Out Thatysis Results				
	# of dry, undeveloped, privately owned acres	Minus 8% for road and utility rights-of- way	# of dwelling units, using 100% conventional zoning standards	# of dwelling units, using 50% conventional zoning standards and 50% OSC Overlay District standards
AG – Agriculture (5 acre minimum lot size)	2,179.08 acres	2,004.76 acres	401 dwelling units	758 dwelling units
RR – Rural Residential (2 acre minimum lot size)	3,231.92 acres	2,973.37 acres	1,487 dwelling units	2,231 dwelling units
RC – Recreation Conservation (5 acre minimum lot size)	294.61 acres	271.05 acres	55 dwelling units	104 dwelling units
	5,705.61 total acres	5,249.18 total acres	1,943 additional dwelling units	3,093 additional dwelling units
			+340 dwelling units approved but not yet developed	+340 dwelling units approved but not yet developed
			2,283 additional dwelling units at build-out	3,433 additional dwelling units at build-out
			+2,225 existing dwelling units in 2010	+2,225 existing dwelling units in 2010
			4,508 total dwelling units at build-out	5,658 total dwelling units at build-out

Source: Dexter Township Department of Planning & Zoning

# **Build-Out Analysis by Washtenaw County Planning Staff**

In 2008, the Washtenaw County Department of Economic Development & Environment staff conducted its own build-out analysis of Dexter Township using different methodology. After meeting with Dexter Township staff and obtaining the requisite zoning and land use information, Washtenaw County staff used the following steps to calculate the number of additional dwelling units Dexter Township would have if it were built out according to its current zoning standards:

#### Step 1: Calculate the amount of buildable land in Dexter Township

Similar to Step 1 of Dexter Township staff's build-out analysis, Washtenaw County staff created a layer of buildable land in Dexter Township by taking a layer containing all of Dexter Township's parcels and deleting all parcels that are right-of-ways, dedicated parks, common areas, and/or publicly owned. Next, Washtenaw County staff deleted all wetlands, lakes, ponds, and rivers. Unlike Dexter Township staff's build-out analysis, Washtenaw County staff deleted land adjacent to county drains and land with steep slopes. Similar to Dexter Township staff's layer after Step 1, Washtenaw County staff's layer at this point represents undeveloped, privately-owned upland.

# Step 2: Associate zoning and density for all buildable land to determine the number of households at build-out

The Dexter Township Official Zoning Map was used to determine residential development densities. First, Washtenaw County staff overlaid Dexter Township's residential zoning districts on the buildable land area calculated in Step 1. Next, it assigned maximum OSC densities to those parcels 20 acres or more in the Agriculture (AG) and Rural Residential (RR) Districts. Those parcels in the Recreation Conservation (RC) and Lakes Residential (LR) Districts and those parcels less than 20 acres in the AG and RR Districts were assigned their normal zoning density. Once these densities were established for each parcel, the map was overlaid by a checkered grid, with each cell the size of the zoning density. If the cell has buildable area in its center, it is counted as a potential dwelling unit. After deducting existing dwelling units in buildable areas and reducing land that has been approved for development but not yet built, Washtenaw County staff's mode predicts that Dexter Township can accommodate approximately 2,579 additional dwelling units (2,239 additional dwellings + 340 dwelling units approved, but not yet developed). This projection is lower than those calculated by Dexter Township staff for two reasons. First, only those cells that had buildable area in their center were counted. And second, the cell had to be completely contained on the parcel in order to be counted. Therefore, if half of a cell is bisected by a property line, it is not counted as a buildable lot. Although there were several portions of cells that would have added perhaps a few hundred more potential dwelling units, it is just as likely that many of the parcels will not be built out according to OSC zoning or even to the maximum standards of its zoning district. Combined with the number of households in 2010 (2,225), the total number of dwelling units at build-out under this analysis would be 4,804 (a 115.9% increase from 2010). This build-out is far higher than the 2035 household projections described on page 27 of this Plan (e.g., SEMCOG projects 2,565 households and the alternative model using the growth rate from 1980-1990 projects 3,638 households).

Using both build-out analyses, Dexter Township can expect between **2,579** and **3,433** additional dwelling units at build-out. This relatively large range illustrates the differences in outcomes when different methodologies are used. Therefore, it is important for Dexter Township to continuously update its build-out analysis while concurrently seeking alternative analyses.

# Step 3: Determine future Township population at build-out

Using the total number of dwelling units at build-out under Washtenaw County's OSC Overlay District zoning scenario (**4,804 dwelling units**) and multiplying it by SEMCOG's projection of Dexter Township's average household size in 2035 (**2.51 persons per household**), the future population of Dexter Township at build-out would be approximately **12,058 residents**. This build-out is far higher than the 2035 population projections described on **page 26** (e.g., SEMCOG projects 6,440 residents and the alternative model using the growth rate from 1980-1990 projects 8,365 residents).

# **Build-Out Analysis Summary**

If we can reasonably conclude that the build-out population of Dexter Township will be between **12,058** and **14,202**, this information will allow Dexter Township to guide future decision-making on such issues as zoning, infrastructure, and public services. However, we must continue to periodically conduct alternative build-out analyses to ensure that such decision-making is based on relatively accurate population estimates.

# **Chapter 6: Policies and Implementation**

#### **Plan Format**

The following pages outline the development *goals*, *objectives*, and *strategies* of the Township. The *goals*, *objectives*, and *strategies* were established through the planning process (see **Figure 1 on page 2**). During this process, the Township Planning Commission solicited public input on the problems and opportunities facing Dexter Township. This was accomplished through public meetings and an opinion survey, which was mailed to all property owners in the Township. The Planning Commission then analyzed the responses and formulated *goals* and *objectives* designed to address the issues raised during that process.

The list of *strategies* following the *objectives* are not exhaustive or mutually exclusive, but they provide a broad range of options, some more feasible than others, that can be used to reach the *goals* and *objectives*. These *strategies* should each be viewed as one piece of the puzzle – an interlocking series of planning actions that together form the basis for eventual achievement of the development *goals* of the Township. Finally, it should be noted that some *strategies* might not be feasible given current political, legal, economic, or practical reasons. While this may prevent implementation of some *strategies* immediately, a consideration of these options in the future by the Planning Commission is possible.

#### Goals

*Goals* should be viewed as long-range statements. They are reflections on the Township's underlying values and desires. They are typically more general in nature.

#### **Objectives**

*Objectives* are shorter term, more specific statements, which are designed to partially achieve the *goals*. They can be thought of as one step towards meeting the *goal*.

### **Strategies**

Strategies are specific actions which can be taken by the Planning Commission and Township Board in their efforts to achieve each *objective*. They are definitive statements aimed at the achievement of specific *objectives*.

Through this *goal* – *objective* – *strategy* format (see **Figure 2**), a direct link has been established between Township desires (*goals* and *objectives*) and the actions necessary to achieve them (*strategies*).



#### **Overall Policies**

#### Overall Goal

Promote an efficient pattern of development where Dexter Township continues to develop into a high-quality residential area that sustains our sense of place and rural character, protects existing agricultural enterprises, preserves our natural environment and resources, protects property rights, and is consistent with the Township's ability to provide the necessary infrastructure and services.

**Overall Objective #1:** Prepare a Master Plan, which will guide the orderly growth of the Township and be in general harmony with the expressed desires of the majority of Township residents, while fostering the continued viability of the community.

#### **Strategies**

- **1.1** Annually review the Master Plan for amendment and make planning, not reacting, the driving principal behind decisions.
- **1.2** Update all data, maps, and tables within the Master Plan as newer and more accurate information becomes available.
- **1.3** Study, consider, and implement the strategies listed in the Master Plan.
- **1.4** Seek public comment on amendments to, and implementation of, the Master Plan via public hearings, town hall meetings, and, from time to time, community surveys.

*Overall Objective #2*: Review the Dexter Township Zoning Ordinance and site plan applications to assure conformity with the Master Plan.

# **Strategies**

- **2.1** Amend the Zoning Ordinance to implement the Master Plan.
- **2.2** Amend the Zoning Ordinance in such a manner as to minimize the need for variances and to promote a general policy of limiting the number and extent of variances.
- **2.3** During review of site plan applications, determine whether or not the applications support the policies of the Master Plan.

*Overall Objective #3:* Develop subplans for geographic areas less than the entire Township if, because of the unique physical characteristics of

that area, more intensive planning is necessary for the purposes set forth in the Michigan Planning Enabling Act, as amended.

#### **Strategies**

- **3.1** Review all data, issues, trends, and policies in the Master Plan to identify unique geographic areas where more intensive planning may be necessary.
- **3.2** Conduct studies of identified unique geographic areas to determine if more intensive planning is necessary.

Overall Objective #4: In accordance with the results of the 2007 Dexter Township Community Survey (where the following percentages of respondents thought that it was Very Important or Somewhat Important "for Dexter Township to cooperate with adjacent local units of government on the following issues:" "Police protection" (92.6%), "Fire protection" (96.0%), "Planning, zoning, and land use" (84.6%), "Sewage treatment" (70.4%), and "Road maintenance and upgrading" (84.8%)), participate in regional planning efforts to advance the policies of the Dexter Township Master Plan and the general welfare of the Dexter Township Region.

- **4.1** Continue to actively participate in CAPT/DART and, where all interests are mutually beneficial, advocate for regional plans.
- **4.2** Continue to review and comment on all proposed Master Plans and Master Plan amendments of surrounding communities when the communities formally request such review and comment per the Michigan Planning Enabling Act.
- **4.3** Coordinate planning efforts when large projects are located along political boundaries and can affect more than one (1) governmental unit.

# **Agricultural Policies**

# Agricultural Goal

Encourage and support the creation and continuation of local farming operations and the long-term protection and viability of farmland resources by the provision of an environment conducive to agricultural operations.

Agricultural Objective #1: Make land use decisions with the intent of supporting agricultural operations and minimizing conflicts between agricultural and non-agricultural land uses. This includes promoting a balance between supporting the Agricultural Policies of this section and supporting the Environmental Policies of the following section.

#### **Strategies**

- 1.1 Continue to encourage clustering or siting non-farm residences in a manner that minimizes conflicts between residential and agricultural uses while also encouraging the preservation of farmland, natural resources, and rural character. Current examples of clustering include Open Space Community (OSC) Overlay District (see pages 64-65) and AG Agriculture District (see pages 89-90) zoning standards.
- 1.2 Where appropriate, require buffering between housing or commercial sites and agricultural areas so that residential or commercial uses will not interfere with agricultural activities. Buffering may be achieved through vegetative screening or larger setback distances. However, careful consideration shall be given to the potential impact of creating a new habitat for wildlife that could become a nuisance by damaging nearby crops. Therefore, such buffering should be properly managed by the owner to discourage invasive species and nuisance animals.
- 1.3 Consider the adoption of an overlay district around the perimeter of actively farmed land to minimize potential conflict between agricultural and non-agricultural uses. At the same time, also consider increasing the allowable densities outside of the overlay district as a means of partially or wholly offsetting the development that would have otherwise been permitted inside of the overlay district.

- 1.4 Support only those new or expanding agricultural uses that comply with the Michigan Right to Farm Act (P.A. 93 of 1981, as amended) and, where appropriate, the adopted Generally Accepted Agricultural and Management Practices (GAAMPs) of the Michigan Commission of Agriculture, and discourage those that do not.
- **1.5** Support only those new or expanding agricultural uses that comply with all federal, state, county, and local environmental regulations, and discourage those that do not.
- 1.6 Participate with, and give input to, the Michigan Department of Agriculture and the applicant when Dexter Township is sent notice of a siting request application for a new or expanded livestock production facility. Dexter Township's input should include the application's conformity with the Master Plan and Zoning Ordinance.
- 1.7 When appropriate, support farmers in obtaining any necessary permits through the State of Michigan to prevent or control the population of nuisance animals that are damaging crops.

Agricultural Objective #2: Educate the public (including Dexter Township officials and appointees) on the importance of sustaining and enhancing a strong local agricultural economy and on how local land uses impact the local agricultural economy.

- **2.1** Make available on the Dexter Township website references to those studies that have found that farmland and open space typically produce more revenue than the cost to provide such land with public services (i.e., a sustainable tax base).
- **2.2** Make available on the Dexter Township website information on state and local regulations enacted to protect agricultural uses.
- 2.3 Make available on the Dexter Township website studies and statistics that demonstrate the importance of agriculture and food production to the local and state economy.
- **2.4** Encourage Dexter Township officials and appointees to participate in seminars that will increase their knowledge of agricultural issues and regulations.

Agricultural Objective #3: Encourage and support programs that will sustain and enhance the viability of agriculture through new and expanding markets for locally grown products.

#### **Strategies**

- **3.1** Support and participate in collaborative efforts between Washtenaw County, MSU Extension, University of Michigan Business School, local governments, surrounding counties, state government, agricultural organizations, and other interested entities to find new market opportunities for Dexter Township's and the region's agricultural sector.
- **3.2** Support improvements in the local and regional transportation system that maintain and improve the local farmers' access to markets.

Agricultural Objective #4: In accordance with the results of the 2007 Dexter Township Community Survey (where the 56.8% of respondents rated "Preservation of agricultural land" as a High Priority), encourage and support the creation and continuation of agricultural operations through farmland preservation programs.

#### **Strategies**

- **4.1** Where appropriate, encourage and support P.A. 116 agreements, which are temporary restrictions on the land between the State of Michigan and the landowner, voluntarily entered into by the land owner, preserving their land for agriculture in exchange for certain tax benefits and exemptions for various special assessments.
- **4.2** Encourage the use of easements, land trusts, or deed restrictions when and where appropriate to preserve agricultural areas.
- **4.3** Where appropriate, encourage and support Purchase of Development Rights (PDR) agreements, which are permanent restrictions on the land between the government and the landowner, voluntarily entered into by the landowner, preserving their land for agriculture in exchange for a cash payment for those rights.
- **4.4** Although the results of the 2007 Dexter Township Community Survey (where only 19.3% of respondents stated that they would support additional taxes for "Preservation of agricultural land")

- suggest little support for a new millage to fund PDR for the preservation of agricultural land, consider such a millage if there is a demonstrated demand for it from the electorate.
- **4.5** Consider adoption of a Transfer of Development Rights (TDR) ordinance that would allow increased development in areas that Dexter Township has designated for development in return for preservation of places it wants to protect, such as active farms. A TDR program shall only be considered under the following circumstances:
  - 1. The "sending" areas (i.e., the land where development rights are transferred from) and "receiving" areas (i.e., the land where development rights are transferred to) shall be defined and approved by Dexter Township; and
  - 2. The number of units approved by Dexter Township shall not be greater than the number of units that would have otherwise been approved by Dexter Township without the TDR; and
  - **3.** The "receiving" area shall be serviced by adequate public infrastructure prior to approval of any increase in density.

When invited, participate with other municipalities in the region to study and consider a regional TDR program, even if Dexter Township ultimately opts not to participate in a regional TDR program.

Agricultural Objective #5: Review and, if necessary, amend the planning and zoning provisions to assure they support local farming operations.

- **5.1** Periodically review the Dexter Township Zoning Ordinance, in consultation with the Dexter Township Attorney, to ensure that the Zoning Ordinance complies with the Michigan Right to Farm Act, adopted GAAMPs, and all other state regulations related to agricultural land uses.
- 5.2 Amend the Dexter Township Master Plan and Zoning Ordinance when new laws are adopted and new planning and zoning techniques are discovered that benefit agricultural uses. However, Dexter Township shall be sensitive to imposing higher standards on farmers than the state or federal government, or imposing regulations that will be detrimental to agricultural use.

#### **Environmental Policies**

#### Environmental Goal

Preserve, protect, and restore the natural resources and environment of Dexter Township and the region through a comprehensive approach to water quality management and preservation of our natural features.

**Environmental Objective #1:** Identify and inventory Dexter Township's natural features and environmentally sensitive areas.

#### **Strategies**

- 1.1 Actively utilize and maintain available GIS mapping data from Washtenaw County and other agencies, and continually update Dexter Township's maps of natural features and environmentally sensitive areas as newer and more accurate data becomes available. Such data should include topography, soils, slopes, water bodies, floodplains, sub-watersheds, sub-basins, groundwater recharge areas, wetlands, woodlands, plant and flora quality, and land use.
- 1.2 Use information from the Huron River Watershed Council (such as the bioreserve project) and other agencies to prioritize the quality of natural features and environmentally sensitive areas based on their size, hydrology, topography, connectivity, biodiversity, ability to sustain a viable wildlife habitat, and other related factors.
- **1.3** Educate the public (including Dexter Township officials and appointees) by posting and updating maps of Dexter Township's natural features and environmentally sensitive areas at Dexter Township Hall and on Dexter Township's website.

Environmental Objective #2: In accordance with the results of the 2007 Dexter Township Community Survey (where the following were rated as a High Priority accordingly by respondents: "Groundwater quality" (81.8%), "Surface water quality (lakes, rivers, etc.) and storm water runoff" (78.2%), and "Protection of wetlands" (67.7%)), protect and enhance the quality of water resources in Dexter Township through a comprehensive approach of education, planning, regulation, and enforcement.

- 2.1 Educate the public (including Dexter Township officials and appointees) on the importance of protecting water quality, how local land uses affect water quality, and strategies that can be used to protect and improve water quality. Education materials should include the environmental impacts of impervious surfaces and phosphorus sources.
- Where necessary, require proposed development to evaluate the capacity of the groundwater to supply quality water.
- 2.3 Where appropriate, require proposed developments to conduct a hydrogeological evaluation to determine the location and boundaries of groundwater recharge areas, and determine whether the proposed development will impact the groundwater recharge areas.
- **2.4** Adopt and actively enforce Township storm water management standards for development and redevelopment in or near environmentally sensitive areas through the use of best management practices (BMPs).
- **2.5** Consider the adoption of phosphorus and pesticide regulations that will prohibit excessive application and limit the amount of phosphorus and toxins that enter our lakes, rivers, streams, ponds, and wetlands.
- **2.6** Where a portion of land is characterized by floodplains, discourage development within the floodplain.
- 2.7 Consider the adoption of a wetland protection ordinance if other strategies are inadequate in preserving and protecting the quantity and quality of Dexter Township's wetlands.
- 2.8 Consider the adoption of an overlay district to protect areas that are relatively more environmentally sensitive to water pollution (including steep slopes, floodplains, groundwater recharge areas, wetlands, bioreserve areas, and areas near water bodies). At the same time, consider increasing the allowable densities outside of the overlay district as a means of partially or wholly offsetting the development that would have otherwise been permitted inside of the overlay district.
- Where appropriate, encourage a "Green Streets" strategy which provides for roadside on-site storm water treatment of typical rain events via low, dense vegetation.

Environmental Objective #3: Preserve and enhance the quality of wildlife habitat and biodiversity in Dexter Township through a comprehensive approach of education, planning, regulation, and enforcement.

#### **Strategies**

**3.1** Educate the public (including Dexter Township officials and appointees) on the importance of protecting wildlife habitat and biodiversity, how local land uses affect them, and strategies that can be used to protect and improve them.

**Environmental Objective #4:** Protect the visual environment and rural character of Dexter Township through management of outdoor lighting and its impact upon traffic safety, adjacent and nearby land uses, and the night sky.

#### **Strategies**

- **4.1** Educate the public (including Dexter Township officials and appointees) on the importance of preserving the night sky, how local land uses affect the night sky, and strategies that can be used to light an area in a way that maximizes security and safety while also minimizing glare, sky glow, light trespass, energy waste, and financial waste.
- **4.2** Enforce the outdoor lighting standards in the Dexter Township Zoning Ordinance.
- **4.3** When the outdoor lighting standards in the Dexter Township Zoning Ordinance are deficient or inadequate, prepare a separate ordinance or amend the Zoning Ordinance to appropriately regulate outdoor lighting in a way that maximizes security and safety while also minimizing glare, sky glow, light trespass, energy waste, and financial waste.

**Environmental Objective #5:** Make land use decisions with the intent of protecting environmentally sensitive areas and preventing conflicts between land uses and environmentally sensitive areas.

# **Strategies**

**5.1** Verify compliance with local, state, and federal environmental regulations when reviewing all land use proposals.

- **5.2** Minimize the impact on natural features and environmentally sensitive areas when reviewing all land use proposals.
- **5.3** Encourage maximum retention and preservation of environmentally sensitive areas during site plan design, review, and approval processes.
- **5.4** Enforce all applicable Township Ordinance regulations that protect environmentally sensitive areas.
- 5.5 In accordance with the results of the 2007 Dexter Township Community Survey (where the following were rated as a High Priority accordingly by respondents: "Groundwater quality" (81.8%), "Surface water quality (lakes, rivers, etc.) and storm water runoff" (78.2%), "Protection of woodlands and large trees" (72.7%), "Preservation of natural undeveloped land" (69.2%), and "Protection of wetlands" (67.7%)), consider applying for funding for natural area preserves and PDR agreements where appropriate and where such agreements will further this objective.
- 5.6 Although the results of the 2007 Dexter Township Community Survey (where a minority of respondents stated that they would support additional taxes for "Preservation of natural undeveloped land" (28.7%), "Protection of wetlands" (23.4%), Surface water quality and storm water runoff" (23.6%), "Groundwater quality" (23.7%), and "Protection of woodlands and large trees" (22.5%)) suggest little support for a new millage to fund additional environmental protection, consider such millages if there is a demonstrated demand for them from the electorate.
- 5.7 Consider adoption of a Transfer of Development Rights (TDR) ordinance that would allow increased development in areas that Dexter Township has designated for development in return for preservation of places it wants to protect, such as environmentally sensitive areas. A TDR program shall only be considered under the following circumstances:
  - 1. The "sending" areas (i.e., the land where development rights are transferred from) and "receiving" areas (i.e., the land where development rights are transferred to) are defined and approved by Dexter Township; and
  - **2.** The number of units approved by Dexter Township does not not exceed the number of units that would have otherwise been approved by Dexter Township without the TDR; and

**3.** The "receiving" area is serviced by adequate public infrastructure prior to approval of any increase in density.

When invited, participate with other municipalities in the region to study and consider a regional TDR program, even if Dexter Township ultimately opts not to participate in a regional TDR program.

**Environmental Objective #6:** Oppose sanitary landfills, hazardous waste sites, nuclear waste storage of any type or classification, and similarly hazardous uses within Dexter Township.

#### **Strategies**

- **6.1** Maintain Township policy, which emphasizes the incompatibility of landfills, hazardous waste sites, and nuclear storage facilities of any type or classification within Dexter Township.
- **6.2** Know the procedure by which landfills, hazardous waste sites, and nuclear storage facilities are sited.

**Environmental Objective #7:** In accordance with the results of the 2007 Dexter Township Community Survey (where the 72.7% of respondents rated "Protection of woodlands and large trees" as a High Priority), preserve and protect the woodland areas in Dexter Township through a comprehensive approach of education, planning, regulation, and enforcement.

- **7.1** Educate the public (including Dexter Township officials and appointees) on the importance of preserving woodlands, how local land uses affect woodlands, and strategies that can be used to protect woodlands.
- **7.2** Minimize the impact on woodlands and large trees when reviewing all land use proposals.
- **7.3** Encourage maximum retention and preservation of woodlands and large trees during site plan design, review, and approval processes.

#### **Residential Policies**

#### Residential Goal

Accommodate residential development in Dexter Township in a manner that preserves the Township's overall rural character, assures a safe and healthy residential setting, meets the various housing needs and preferences of the community, and respects the opportunities and constraints of the Township's public services, infrastructure and natural resources.

**Residential Objective #1:** Foster residential developments that integrate the physical (natural) and built environments in a way that complements and enhances both, promotes neighborhood and community identity, minimizes the conflicts between residential and non-residential land uses, respects the opportunities and constraints of the Township's public services and infrastructure, and preserves the natural resources and rural character of Dexter Township.

#### **Strategies**

- 1.1 In accordance with the results of the 2007 Dexter Township Community Survey (where 62.0% of respondents either Strongly Encouraged or Encouraged "Subdivisions, with some common open space preserved" and 90.8% of respondents either Strongly Discouraged or Discouraged "Subdivisions, with no common open space preserved"), continue the policy of encouraging residential developments that preserve open space. However, this open space should be properly managed by the owner to discourage invasive species and nuisance animals.
- 1.2 Organize residential developments around natural features (e.g., wetlands, woodlands, high-quality wildlife corridors, steep slopes, water bodies, etc.) and open space amenities (e.g., public land, other permanent open space, scenic vistas, etc.), and require quality site and architectural design that creates neighborhoods of sustainable value.
- 1.3 Amend the Dexter Township Zoning Ordinance to require that all proposed residential and mixed use developments allow for non-motorized transportation along the roadsides, trails/greenways within the open space areas, if any, and connectivity to existing or proposed non-motorized trails.

**Residential Objective #2:** Pursue land use regulations for the high density residential areas around Portage, Silver, North, and Half Moon Lakes that recognize their unique character and needs, preserve the natural resources and rural character of those areas, minimize their environmental impact on water quality, accommodate the level of traffic and parking, and promote public safety.

- 2.1 Review the existing building setbacks and lot coverages of the high density residential areas around the lakes and, where appropriate, create separate zoning districts and accompanying development standards that reflect the unique characteristics and built environment of the area.
- 2.2 When necessary, amend the setback, lot coverage, and height standards of the high density residential areas around the lakes in a way that reduces the number of nonconforming structures (and, therefore, the number of variance requests to the Zoning Board of Appeals), promotes public safety, preserves the built environment, controls density, prevents overuse of the land (including preserving the panoramic views of the lake to the greatest extent feasible for both waterfront and non-waterfront properties), and enhances the opportunities to improve lake water quality through the use of best management practices (BMPs) to mitigate storm water runoff.
- **2.3** Educate the public (including Dexter Township officials and appointees) on the importance of protecting water quality, how local land uses affect water quality, and strategies that can be used to protect and improve water quality. Education materials should include the environmental impacts of impervious surfaces and phosphorus sources.
- 2.4 Adopt and actively enforce Township storm water management standards for development and redevelopment in or near the high density residential areas around the lakes through the use of best management practices (BMPs).
- **2.5** Consider the adoption of phosphorus and pesticide regulations in or near the high density residential areas around the lakes that will prohibit excessive application and limit the amount of

- phosphorus and toxins that enter our lakes, rivers, streams, ponds, and wetlands.
- **2.6** Discourage zoning amendments, variances, and land uses in or near the high density residential areas around the lakes that would create fire hazards or otherwise impede access of emergency responders.

Residential Objective #3: As Dexter Township's population continues to age and in accordance with the results of the 2007 Dexter Township Community Survey (where 59.8% of respondents either Strongly Encouraged or Encouraged "Specialized housing for seniors or those with special needs"), pursue residential land use regulations that accommodate the housing needs and preferences of Dexter Township's elderly and special needs population while also promoting neighborhood and community identity, minimizing conflicts between land uses, respecting the opportunities and constraints of the Township's public services and infrastructure, and preserving the natural resources and rural character of Dexter Township.

#### **Strategies**

- **3.1** Review applicable data and conduct necessary studies to determine if, where, and how much additional housing is needed that is designed to accommodate the needs and preferences of the elderly and/or special needs population.
- **3.2** If necessary, amend the Dexter Township Master Plan and Future Land Use Map to allow and encourage additional housing that is designed to accommodate the needs and preferences of the elderly and/or special needs population.
- **3.3** Based on the policies and Future Land Use Map of the Dexter Township Master Plan, amend the Dexter Township Zoning Ordinance, if necessary, to allow and encourage additional housing that is designed to accommodate the needs and preferences of the elderly and/or special needs population.
- 3.4 Continue Dexter Township's zoning policy of allowing attached accessory dwelling areas within single-family residences, provided the single-family residences and their attached accessory dwelling areas meet all of the standards of the Dexter Township Zoning Ordinance.

**3.5** Development of housing that is designed to accommodate the needs and preferences of the elderly and/or special needs population shall meet all applicable Residential Policies in this section.

Residential Objective #4: In accordance with the results of the 2007 Dexter Township Community Survey (where 50.9% of respondents either Strongly Encouraged or Encouraged "Smaller sized homes that are more affordable"), sustain a balanced housing inventory that includes pursuing residential land use regulations that encourage housing for moderate income households and smaller sized homes that are more affordable while also promoting neighborhood and community identity, minimizing conflicts between land uses, respecting the opportunities and constraints of the Township's public services and infrastructure, and preserving the natural resources and rural character of Dexter Township.

- **4.1** Review applicable data and conduct necessary studies to determine if, where, and how much additional medium- and high-density housing is necessary.
- **4.2** If necessary, amend the Dexter Township Master Plan and Future Land Use Map to allow and encourage additional medium- and high-density housing.
- **4.3** Based on the policies and Future Land Use Map of the Dexter Township Master Plan, amend the Dexter Township Zoning Ordinance, if necessary, to allow and encourage additional medium- and high-density housing.
- **4.4** Development of medium- and high-density housing shall meet all applicable Residential Policies in this section.

#### **Commercial Policies**

#### Commercial Goal

Allow commercial land uses of a size, scale and character that are intended to serve the day-to-day needs of the local population, compatible with available public infrastructure and services, and of a design that preserves the natural resources and rural character of the Township.

Commercial Objective #1: Due to Dexter Township's limited infrastructure (e.g. lack of public water, lack of regional thoroughfares, and limited public sewer), market conditions, small population base, amount of environmentally sensitive areas, proximity of and competition from nearby urban centers, and the local commitment to the preservation of the community's natural resources and rural character, commercial development should be limited to uses that predominantly cater to the consumer and service needs of the local population. As such, large commercial facilities which draw from a regional market should be discouraged. Furthermore, new commercial uses in Dexter Township shall be located, sited, and designed to reflect the rural character of Dexter Township, maximize their benefit to the local population, and minimize any potential adverse impacts on the Township, its infrastructure, and its environment.

# **Strategies**

- **1.1** Encourage commercial land uses only in areas that are conveniently accessed by the local population.
- **1.2** Encourage commercial land uses only along roads that have the demonstrated capacity to accommodate all of the anticipated traffic generated by such uses.
- 1.3 Consider the adoption of an overlay district within all commercial zoning districts to protect areas that are environmentally sensitive to pollution or are important to wildlife habitat and biodiversity (including steep slopes, floodplains, groundwater recharge areas, wetlands, woodlands, and areas near water bodies). At the same time, consider increasing the allowable densities outside of the overlay district as a means of partially or wholly offsetting the development that

- would have otherwise been permitted inside of the overlay district.
- **1.4** Discourage "strip commercial" for commercial land uses along roadways by requiring combined drives and service drives for new commercial developments with more than one (1) commercial use.
- 1.5 Consider adopting design standards and guidelines that detail graphically what the Township's "vision" of a given area, intersection, or corridor is in relation to surrounding land uses, environmental factors, and traffic patterns. This could be done by using area plans or a visual overlay district that would include specific setbacks, curb cuts, service drives, placement of parking, and landscaping and screening guidelines to ensure a cohesive appearance.
- **1.6** Regularly review and evaluate the Home Occupation standards of the Dexter Township Zoning Ordinance to ensure that these standards allow residents to operate home-based businesses and/or telecommute without compromising the rural and residential character of the surrounding area.

Commercial Objective #2: Regularly review the Master Plan to see if it addresses community needs and desires as they pertain to commercial development, and continue to consider the public's varying points of view (e.g., responses expressed in the 2007 Dexter Township Community Survey [see pages 21-24 of this Plan]) in connection with those reviews.

#### **Strategies**

- **2.1** Annually review the Master Plan and Future Land Use Map for amendment and determine an appropriate amount and location of land dedicated to future commercial uses.
- **2.2** Seek public comment on amendments to, and implementation of, the Master Plan via public hearings, town hall meetings, and, from time to time, community surveys.

Commercial Objective #3: Review the permitted and conditional commercial land use standards of the Dexter Township Zoning Ordinance to determine if they meet the intent of the zoning district,

meet the needs of the community, and reflect the rural character of Dexter Township.

### **Strategies**

3.1 Regularly re-evaluate commercial uses in all zoning districts in regard to the list of permitted land uses, and remove or recategorize those that are not typically associated with a rural environment. Commercial uses that are typically associated with a rural environment should be reviewed from time to time and, if necessary, amended, to ensure that they are still associated with a rural environment and appropriately categorized as permitted land uses.

#### **Industrial Policies**

#### Industrial Goal

Cooperate within the region to support cohesive industrial development that is adequately supported by the necessary infrastructure.

*Industrial Objective #1*: Encourage industrial development in the region to locate only in areas where adequate infrastructure exists to support it.

- **1.1** Cooperate with neighboring communities to maximize the utilization of their facilities for industrial development, where appropriate.
- 1.2 Support light industrial uses in Dexter Township only when and where such light industrial uses are low intensity, are supported by adequate infrastructure, reflect the rural character of Dexter Township, and minimize the impact on the surrounding environment, infrastructure, traffic levels, and public services. Discourage any industrial use that does not meet all of these criteria.

# **Transportation/Circulation Policies**

#### Transportation/Circulation Goal

Strategically plan for, maintain, and invest in a transportation network that meets the needs of the community in a sustainable and cost-effective manner while preserving our sense of place and rural character.

*Transportation/Circulation Objective #1:* Maintain and improve the current level of service and safety of Dexter Township's roads.

#### **Strategies**

- 1.1 Work with the Washtenaw County Road Commission (WCRC) to determine the level of safety and service for all public roads in Dexter Township and determine what actions are needed to maintain and improve the level of safety and service.
- 1.2 In accordance with the results of the 2007 Dexter Township Community Survey (where 84.8% of respondents stated it was either Very Important or Important for Dexter Township to cooperate with adjacent local units of government on road maintenance and upgrading), participate with all regional partners (including the Chelsea Area Planning Team/Dexter Area Regional Team [CAPT/DART], which is described on page 19), as well as WCRC, the Washtenaw Area Transportation Study (WATS), and the Michigan Department of Transportation (MDOT), to identify needed solutions and available funding for the public roads of Dexter Township and the region.
- 1.3 Although the results of the 2007 Dexter Township Community Survey (where a minority of respondents stated that they would support additional taxes for "Quality of the township road system" (14.9%) and "Traffic Management (9.7%)) suggest little support for a new millage to fund road maintenance, reconstruction, and traffic management, consider such a millage if there is a demonstrated demand for it from the electorate.
- **1.4** Encourage the WCRC to maintain the safety of its right-of-way where threats to safety exist, including without limitation vegetation in the right-of-way.
- **1.5** In accordance with the results of the 2007 Dexter Township Community Survey (where 59.3% respondents supported a

- "coordinated garbage pickup service throughout the township, where a preferred hauler is selected and residents have the option of enrolling at a discounted rate), consider implementing a preferred hauler system as a means of reducing the additional truck trips on Dexter Township's roads currently experienced through our subscription-based system.
- 1.6 In accordance with the results of the 2007 Dexter Township Community Survey (where 54.2% preferred Private roads and 45.8% preferred Public roads when asked, "What type of roads should Dexter Township encourage to service new residential development"), continue the existing policy of allowing both types of new roads, provided they are designed, constructed, and maintained to assure safe and adequate access to dwellings and buildings by both the public and emergency vehicles.
- **1.7** Require new developments to provide legally permissible street improvements to prevent negative impacts on traffic flow.
- 1.8 Support the WCRC Right-of-Way Plan only when the proposed right-of-way widths are compatible with local planning, zoning, and anticipated future development. Oppose the Right-of-Way Plan if the right-of-way widths are excessive in relation to Dexter Township's anticipated future development or undermine local planning and zoning.
- 1.9 Consider adoption of a Township policy that would not allow Zoning Permits to expand structures on unapproved non-conforming private roads until the roads met the private road standards of Dexter Township.
- **1.10** Consider an amendment to the Master Plan that includes a Master Street Plan, to include a means for implementing the Master Street Plan in accordance with the Michigan Planning Enabling Act.

**Transportation/Circulation Objective #2:** Periodically review the need for a capacity analysis for Dexter Township's gravel roads that examines and rates the quality of each gravel road, determines which roads are currently over capacity, and predicts which roads will become over capacity if the area accessing them is built out according to the current zoning.

- **2.1** Encourage the WCRC to collect traffic counts at least every 3 years along all segments of public roads in Dexter Township.
- **2.2** Encourage the WCRC to conduct a gravel road inventory that includes such physical feature data as road width, surface type, width of clear zone, speed of comfortable travel, and road drainage.
- 2.3 If appropriate, consider carrying out a detailed gravel road capacity analysis for Dexter Township. The steps previously outlined in the guidebook titled, *How Much Development is Too Much?: A Guidebook on Using Impervious Surface and Gravel Road Capacity Analysis to Manage Growth in Rural and Suburban Communities* should be instructive.
- 2.4 Where appropriate, recommend solutions and available funding for preserving and enhancing the quality of Dexter Township's gravel road network considering, among other things, community concerns, including those expressed in the 2007 Dexter Township Community Survey.

Transportation/Circulation Objective #3: In accordance with the results of the 2007 Dexter Township Community Survey (where a majority of respondents either Strongly Encouraged or Encouraged "Designated paved bicycle lanes alongside paved roads" (70.9%), "Wider gravel shoulders along paved and gravel roads" (52.3%), and "Natural walking paths and trails" (75.1%). improve the non-motorized infrastructure in Dexter Township and the region by encouraging more non-motorized transportation at the local level and working with regional partners.

# **Strategies**

- **3.1** Require, to the greatest extent possible, that all modes of transportation (bus, automobile, bicycle, and pedestrian) be included in all road reconstruction projects in Dexter Township.
- **3.2** Participate with WATS, WCRC, and other regional partners to further the general purpose of the *Non-Motorized Plan for Washtenaw County*, to promote adequate facilities for bicycles, pedestrians, and other non-motorized system uses in order to reduce congestion, improve health, improve air quality, and provide an elevated level of connectivity to residents of Washtenaw County.

- **3.3** Amend the Dexter Township Zoning Ordinance to require that all proposed residential and mixed use developments allow for non-motorized transportation along the roadsides, trails/greenways within the open space areas, if any, and connectivity to existing or proposed non-motorized trails.
- **3.4** Participate with Washtenaw County, Livingston County, the Huron-Clinton Metropolitan Authority, and other regional partners to develop regional greenways and trail systems such as the Huron River Border-to-Border Trail.
- 3.5 Although the results of the 2007 Dexter Township Community Survey (where only 13.7% of respondents stated that they would support additional taxes for "Non-motorized trails") suggest little support for a new millage to fund non-motorized transportation, consider such a millage if there is a demonstrated demand for it from the electorate.

*Transportation/Circulation Objective #4*: Minimize the adverse impacts of traffic, especially regional traffic, flowing through Dexter Township.

#### **Strategies**

- 4.1 Encourage the Dexter Township Board of Trustees and Planning Commission to participate with local units of government in the *Dexter Township Region* (including the Chelsea Area Planning Team/Dexter Area Regional Team [CAPT/DART], which is described on **page 19**) to improve existing traffic routes and develop alternative traffic routes in an effort to minimize the impact of through traffic in Dexter Township and the *Dexter Township Region*. This cooperation should include working with the Washtenaw and Livingston County Road Commissions and the Michigan Department of Transportation.
- **4.2** Continue to support a future extension of Dexter Townhall Road southward from Island Lake Road in Dexter Township to Dancer Road in Lima Township if certain safety improvements are constructed elsewhere on Dexter Townhall Road.

*Transportation/Circulation Objective #5*: Minimize the number of curb cuts on Dexter Township's roads.

#### **Strategies**

- **5.1** Continue to encourage the use of shared driveways (which are allowed to service up to 4 dwelling units) as a means of reducing curb cuts and improving traffic safety, rural character, and driveway design.
- **5.2** Work with the WCRC and developers to encourage the use of innovative site planning and service drives.
- **5.3** Encourage the use of out-lots and easements dedicated for the use of future roads in subdivisions, site condominiums, and other developments in order to increase the efficiency of the road network, and decrease the isolation of single-family homes and the number of automobile trips.

*Transportation/Circulation Objective #6*: Promote the protection and enhancement of the major Township entrances, and scenic or historic transportation corridors.

#### **Strategies**

- **6.1** Encourage neighboring communities to adopt and enforce blight ordinances comparable to Dexter Township's to enhance the major entrances to the Township and maintain the natural beauty of the region.
- **6.2** Major entrance roads and roads that have a scenic or historic character should be given special care during maintenance or improvement to cause minimal damage and disturbance.

**Transportation/Circulation Objective #7:** Maximize the efficiency and use of the Western-Washtenaw Area Value Express (WAVE), Ann Arbor Transportation Authority (AATA), and similar transit systems to reduce auto dependency and meet the needs of Dexter Township's residents.

#### **Strategies**

- **7.1** Work with regional partners in Washtenaw County and Livingston County to coordinate more effective transit service, especially for underserved populations such as the elderly, disabled, and low-income.
- **7.2** Participate with WATS to advance the goals of the WATS Transit Plan.

# **Community Facilities Policies**

#### Community Facilities Goal

Maintain community facilities and public services and pursue improvements that address important community needs in a sustainable and cost-effective manner.

Community Facilities Objective #1: In accordance with the results of the 2007 Dexter Township Community Survey (where 57.0% of respondents either Strongly Disagreed or Disagreed that Dexter Township should "Encourage higher density residential development in areas where municipal sewer service is available" and a plurality of respondents (39.5%) preferred "Public sanitary sewer, as long as it does not promote higher densities or more intense land uses" when asked "What type of sanitary waste service should Dexter Township encourage for new residential development?"), adopt a future sanitary sewer service area map that allows for reasonable expansion of the sewer service area without increasing residential densities that would have otherwise been achieved by the Zoning Ordinance with individual septic systems or a cluster drain field.

#### **Strategies**

- **1.1** Allow non-lakes residential areas to connect to sanitary sewer only if all four (4) of the following criteria are fulfilled:
  - **1.** Any and all costs associated with extending and connecting the sewer line are paid by the developer; and
  - **2.** Access to sanitary sewer <u>does not</u> result in unplanned growth or higher residential densities than would have otherwise been achieved by the Zoning Ordinance, with individual septic systems or a cluster drain field; and
  - **3.** Better groundwater quality and more environmentally friendly site design is promoted; and
  - **4.** The sewer system has residential equivalency unit (REU) capacity that does not lower or jeopardize other connection opportunities in the lake areas or create the need for additional capacity at the current sewer plant.

As mentioned previously on **pages 17-18**, public sewer was initially approved in response to a significant environmental

- threat and was not originally intended to serve as a catalyst for unplanned growth areas or heightened development densities.
- 1.2 In accordance with the results of the 2007 Dexter Township Community Survey (where 70.4% of respondents stated it was either Very Important or Important for Dexter Township to cooperate with adjacent local units of government on sewage treatment), work with local units of government in the *Dexter Township Region* to enhance sewage treatment in the region.
- 1.3 Although the results of the 2007 Dexter Township Community Survey (where only 6.1% of respondents stated that they would support additional taxes for "Expansion of the public sewer systems") suggest little support for a new millage or assessment to fund sewer expansion, consider such a millage if there is a demonstrated demand for it from the electorate.

Community Facilities Objective #2: Oppose a change in the nature or use of its sewage treatment plants and reservoirs if such changes will compromise the sanitary sewer service area, REU capacity, groundwater and environmental quality, rural character, traffic safety, and road quality.

#### **Strategies**

2.1 Dexter Township shall not allow sewage treatment plants and reservoirs to import and treat septage from outside of the sanitary sewer service area without Site Plan approval from the Dexter Township Planning Commission for this particular use. Approve such a site plan only if this use does not reduce or degrade the sanitary sewer service area, REU capacity, groundwater or environmental quality, rural character, traffic safety, or road quality.

**Community Facilities Objective #3:** Work with local school districts within Dexter Township to promote long-term planning for school sites or other facilities to accommodate future student populations.

#### **Strategies**

**3.1** Consider site plan review provisions which address the impact of new and expanding residential developments on the school system's capacity and its ability to deliver services.

- **3.2** Notify affected school districts during the planning process when certain projects will alter student population or the school district's delivery of services.
- **3.3** Participate in applicable discussions of school expansion.
- **3.4** Support state legislation that would require local planning and zoning review of school site plans.

**Community Facilities Objective #4:** Identify and encourage the preservation of historically significant areas and buildings in Dexter Township through local, state, and national programs.

#### **Strategies**

- **4.1** Include in site plan review criteria the existence of historic buildings, residential properties, and farmsteads, as well as other historic features, which may be impacted by new or expanding development.
- **4.2** Work with Washtenaw County, regional partners, and any historical preservation groups to identify and preserve historically significant areas and buildings.

Community Facilities Objective #5: In accordance with the Michigan Planning Enabling Act, annually prepare a capital improvements program (CIP) of public structures and improvements. The Township Board of Trustees will determine how the CIP will be prepared, and the Planning Commission will participate as the Township Board of Trustees requires.

- **5.1** Request from each agency or department of Dexter Township with authority for public structures or improvements (including the Dexter Township Board of Trustees, the Multi-Lakes Water & Sewer Authority, and the Portage Base Sewer Authority) an annual inventory of desired public improvement projects with lists, plans, and estimates of time and cost of those public structures and improvements.
- 5.2 Show those public structures and improvements, in the general order of their priority that, in the Planning Commission's judgment, will be needed or desirable and can be undertaken within the ensuing 6-year period.

**Community Facilities Objective #6:** Consider the adequacy of the local infrastructure when making planning and zoning decisions.

#### **Strategies**

- 6.1 When considering site plans, special land use permits, and zoning amendments, consider the impact on the local infrastructure. When allowed, deny approval unless adequate public facilities and services are available to meet the needs of the proposed uses and such development does not outpace the Township's ability to effectively manage the rate of development.
- **6.2** Use the CIP process to plan for infrastructure improvements that are needed as a result of planned or proposed development.

# **Economic Development Policies**

# **Economic Development Goal**

Promote cohesive economic development within the region that provides job opportunities, preserves a sense of place, is adequately supported by the necessary infrastructure, and realizes a tax base sufficient to provide public services.

**Economic Development Objective #1:** As our economy continues to place a greater emphasis on information technology (e.g., the use of computers, broadband, e-mail, the internet, cellular phones, webcams, wireless networking, etc.), re-evaluate Township zoning standards to ensure that these standards meet the technological needs of residents and businesses while also preserving the Township's natural resources, rural character, and sense of place.

#### **Strategies**

- 1.1 Regularly review and evaluate the Home Occupation standards of the Dexter Township Zoning Ordinance to ensure that these standards allow residents to operate home-based businesses and/or telecommute without compromising the rural and residential character of the surrounding area.
- **1.2** Regularly review and evaluate the wireless communication facilities standards of the Dexter Township Zoning Ordinance to ensure that these standards accommodate current wireless technology without compromising the Township's natural resources, rural character, or sense of place.

*Economic Development Objective #2*: Implement the agricultural policies (**pages 72-73**) and commercial policies (**pages 79-80**) of the Dexter Township Master Plan.

# **Public Safety Policies**

# Public Safety Goal

Promote and provide a safe environment for the general public in a sustainable and cost-effective manner.

**Public Safety Objective #1**: Implement the goals and strategies of the Dexter Township Hazard Mitigation Plan, originally adopted by the Dexter Township Board of Trustees in 2004, for the following hazards:

- Convective Weather: Reduce Dexter Township's vulnerability to convective weather storm hazards, minimize loss of life and injury, and damage to public property.
- Hazardous Materials Incidents Transportation: Reduce the risk of damage, loss of life, and other costs resulting from hazardous material transportation incidents.
- Hazardous Materials Incidents Fixed Site: Reduce the risk of hazardous material fixed site incidents in Dexter Township by increasing the ability to respond and minimizing the impacts to the citizens, environment, and economy.
- <u>Infrastructure Failure</u>: Decrease Dexter Township's vulnerability to infrastructure failures and continue to strengthen the Township's ability to assist citizens during an event.
- Severe Winter Weather Hazard: Reduce the damage and impacts caused to the community by severe winter weather hazards.
- o <u>Petroleum and Natural Gas Pipeline Gas Accidents</u>: Reduce the potential harm from petroleum and natural gas pipeline accidents.
- o **Dam Failures:** Reduce the potential for a dam failure.
- Sabotage and Terrorism: Increase Dexter Township's capacity to anticipate, manage, and withstand potential incidents involving sabotage and terrorism.

#### **Strategies**

- **1.1** Implement the corresponding strategies of the Dexter Township Hazard Mitigation Plan, with the understanding that implementation is based on the availability of funding and staff resources.
- **1.2** Annually review the Dexter Township Hazard Mitigation Plan by reviewing the original plan, reviewing any disasters or emergencies that occurred during the previous year, reviewing

- actions taken, including what has been accomplished during the previous year, discussing implementation problems, and recommending new projects or revised action items.
- 1.3 Update the Township Hazard Mitigation Plan every 5 years as required by FEMA, with the assistance of Washtenaw County, and include land use and zoning strategies in the updates.

**Public Safety Objective #2**: Continue to ensure adequate police and fire protection in Dexter Township.

- 2.1 In accordance with the results of the 2007 Dexter Township Community Survey (where a vast majority of respondents stated that it was Very Important or Somewhat Important "for Dexter Township to cooperate with adjacent local units of government on "Police protection" (92.6%) and "Fire protection" (96.0%)), continue to participate with surrounding local units of government to sustain and improve police and fire protection.
- 2.2 Although the results of the 2007 Dexter Township Community Survey (where only 28.3% and 29.3% of respondents stated that they would support additional taxes for "Police protection" and "Fire protection," respectively) suggest little support for a additional taxes to fund police and fire protection, consider such a millage if there is a demonstrated demand for it from the electorate.
- **2.3** Periodically review the need to consider adoption of a Fire Protection Ordinance.
- 2.4 Work with the public safety officials, the WCRC, private road associations, and regional partners to maintain and improve the delivery of public safety services. Such improvements should include reducing emergency response times by improving road conditions, improving coverage areas, and expanding the number of police/fire station sites to underserved areas.
- **2.5** Where a portion of land is characterized by floodplains, discourage new development within the floodplain.

#### **Parks & Recreation Policies**

#### Parks & Recreation Goal

Promote adequate and accessible parks and recreation for all residents and support regional open space and trail systems to promote a sense of place, preserve important natural features, and provide non-motorized transportation opportunities.

**Parks & Recreation Objective #1:** Participate with Washtenaw County, Livingston County, the Huron-Clinton Metropolitan Authority, and other regional partners to identify current parks and recreational resources of the region and address the current and future recreational needs of Dexter Township and the surrounding area.

- 1.1 Consider adoption of a local or regional Parks & Recreation Plan that outlines the future parks and recreational needs of Dexter Township and the surrounding area, and how we will meet those needs.
- **1.2** Support Washtenaw County's Natural Area Protection Program as a means of preserving important natural resources and establishing additional parkland in Dexter Township and the surrounding area.
- 1.3 Consider amending the Dexter Township Zoning Ordinance to encourage via density bonuses or otherwise all proposed residential and mixed use developments of a certain size to provide parks and recreational facilities for residents through adequate on-site facilities and/or contributing to area-wide facilities and providing pedestrian connections.
- **1.4** Support the development of regional greenways and trail systems such as the Washtenaw County Border-to-Border Trail along the Huron River.
- 1.5 Although the results of the 2007 Dexter Township Community Survey (where only 5.2% of respondents stated that they would support additional taxes for "Additional outdoor recreational opportunities") suggest little support for a new millage to fund more parks and recreational facilities, consider such a millage if there is a demonstrated demand for it from the electorate.

# **Future Land Use Plan and Zoning Plan**

#### Future Land Use and Zoning Districts

The Future Land Use and Zoning Plan described in the following pages identify the planned pattern of land use and development throughout the Township for the next 20 years or more. However, no new land uses should be established, or land re-zoned, unless adequate public facilities and services are available to meet the needs of the proposed uses and such development does not outpace the Township's ability to effectively manage the rate of development.

The Future Land Use and Zoning Plan pattern was established based upon an analysis of the Township's natural and cultural characteristics including community attitudes, existing roadway network, soil conditions, existing and nearby public infrastructure, and environmentally sensitive areas. The opportunities and constraints presented by these characteristics were evaluated within the context of the goals, objectives, and strategies in this Plan. Future development within the Township should be evaluated according to its impact upon natural resources and infrastructure in the Township, including those shown in previous maps within this Plan. These maps are intended to be overlaid upon other Township maps to more graphically identify the location of natural resources and infrastructure, and the potential impact of future development upon them. These maps are intended to serve as general guides and are not a substitute for on-site investigations.

The Future Land Use and Zoning Plan divides the Township into several Future Land Use and Zoning areas, and identifies the predominant land use pattern planned for each of these areas. The approximate limits of these areas are illustrated in the Future Land Use Map (Map 27) and Zoning Plan Map (Map 28). It is not the intent of this Plan to identify each individual land use which should be permitted in each of these areas. Rather, this Plan makes broad-based recommendations regarding the dominant land use intended to be accommodated. Specific permitted land uses are determined by the zoning provisions of the Township Zoning Ordinance, based upon considerations of compatibility.

The following is a description of each of the Future Land Use and Zoning areas:

# <u>Future Land Use: Public or Institutional Land</u> <u>Corresponding Zoning District: PL – Public Lands District (see</u> <u>description on page 63)</u>

The Public or Institutional Land (PIL) area identifies areas in the Township that are planned for or are currently under governmental uses, including joint public and private ventures. The PIL areas are intended to provide a service associated with public infrastructure and/or the delivery of services, and consist of the following:

- Property currently owned and used by public entities such as HCMA
  (Township Hall property only), the Multi-Lakes Area Water &
  Sewer Authority (sewer plant), the Portage-Base Lakes Water &
  Sewer Authority (sewer plant), the University of Michigan (Peach
  Mountain Observatory), the WCRC, and public or associationoperated cemeteries.
- A privately-owned 5-acre parcel located at the southeast corner of the N. Territorial Road/Dexter Townhall Road intersection. This property has a history of commercial use, but has not been commercially used for several years. Due to its central location in Dexter Township, this site has been discussed as a future fire and police station to provide better public safety services to Dexter Township and the surrounding area. The Dexter Township Public Safety Advisory Committee is in the process of compiling response time data in an effort to identify a proper location for a future station.

#### Future Land Use: Public Recreation

# <u>Corresponding Zoning District:</u> PL – Public Lands District (see description on page 63)

The Public Recreation (PR) area identifies areas in the Township that are planned for or are currently owned by a governmental entity and used for public recreational use. The PR areas consist of land owned by the State of Michigan (Pinckney State Recreation Area), the Huron-Clinton Metropolitan Authority (Hudson Mills Metropark), and Washtenaw County (West Lake Preserve). The PR area is characterized by extensive natural resources, including large expanses of woodlands, wetlands, and steep sloped areas. These public resources provide important environmental benefits including habitats for wildlife, flood control, groundwater recharge and discharge, and surface water purification. In addition, they provide special opportunities for recreation and contribute to the Township's overall rural character. Because of the presence of extensive wetlands and steep slopes, much of the land in this area presents severe physical limitations to development.

Due to the severe development limitations within the PR area and the important role that its natural resources and public facilities play, this Plan recommends the protection of these resources and their long term viability by limiting the introduction and intensities of new land uses into these areas. Future use and development of land in the PR area should be predominantly limited to open-space and natural resource based land uses, such as parkland, agriculture, and wildlife management. Should land within the PR area be sold for the intention of private residential use, development densities should not exceed 1 dwelling unit per 5 acres. The availability of public sewer in limited portions of the PL area is not a basis for higher development densities than 1 dwelling unit per 5 acres. Such sewer service is in response to documented environmental conditions associated with some of the Township's lake areas – conditions detrimental to the public health and welfare and the environmental integrity of these lakes.

# <u>Future Land Use: Agricultural Preservation</u> <u>Corresponding Zoning District: AG – Agriculture District (see description on page 63)</u>

The Agricultural Preservation area encourages the continuation of all current farming activities as well as the introduction of new farming activities, and provides opportunities for low density residential development of an overall rural character. Lands within the Agricultural Preservation area are largely characterized by one or more conditions that contribute to agricultural viability, including classification by the U.S. Department of Agriculture as "prime farmland," minimum parcel sizes approaching 40 acres or more, the presence of existing farm operations, and the comparatively lesser presence of residential encroachment. All typical farming activities, including the raising of crops and the use of stables, silos, and barns are encouraged provided that they meet the Michigan Department of Agriculture requirements for Generally Accepted Agricultural Land Management Practices (GAAMPs).

Maximum development densities of approximately 1 dwelling unit per 5 acres are recommended in the Agricultural Preservation area. However, Dexter Township recognizes that if every lot within the Agricultural Preservation area is developed at 5-acre minimum lot sizes, the land consumption would be greater than what is typically needed for a single dwelling. This rate of land consumption would ultimately undermine the Township's rural character and economic stability of farm operations, heighten the rate at which farmland is converted to alternative uses, and encourage the destruction of ecosystems and natural resources. Therefore, in order to provide landowners with increased flexibility and minimize the consumption of farmland acreage to accommodate dwellings, Dexter Township allows opportunities for the creation of smaller land divisions provided the maximum densities are not exceeded. For example, the current minimum lot size in the Agriculture zoning district of Dexter Township is 5 acres; however, the minimum lot size may be reduced to 1 acre, provided the number of lots that may be created shall not exceed a maximum density of 1 such lot for each 5 acres. This provision has encouraged more 1-acre land divisions in the Agriculture zoning district and, in effect, greater preservation of farmland.

The Agriculture zoning district also allows for Open Space Community (OSC) development, which is described on **pages 64-65**.

The availability of public sewer in limited portions of the Agricultural Preservation area is not a basis for higher development densities than those recommended above. Such sewer service is in response to documented environmental conditions associated with some of the Township's lake areas – conditions detrimental to the public health and welfare and the environmental integrity of these lakes.

# <u>Future Land Use: Private Recreation Conservation</u> <u>Corresponding Zoning District: RC – Recreation Conservation</u> (see description on page 64)

The Private Recreation Conservation (PRC) area identifies land in the Township that is currently owned by a private or non-profit entity and used for private recreational and conservation use. The PRC areas include such land uses as shooting ranges, hunt and fish clubs, game ranches, golf courses, day camps, and yacht clubs. Future use and development of land in the PRC area should be predominantly limited to private or non-profit recreational land uses. Should land within the PRC area be sold or converted for the intention of private residential use, development densities should not exceed 1 dwelling unit per 5 acres. The availability of public sewer in limited portions of the PRC area is not a basis for higher development densities than 1 dwelling unit per 5 acres. Such sewer service is in response to documented environmental conditions associated with some of the Township's lake areas – conditions detrimental to the public health and welfare and the environmental integrity of these lakes.

<u>Future Land Use: Private Common Use</u> <u>Corresponding Zoning District: CU – Common Use District (see</u> <u>description on page 64)</u> The Private Common Use (PCU) area identifies riparian land in the Township that is dedicated to common areas owned and/or controlled by private owners of a development project. The Common Use zoning district pertains to such common riparian land.

# <u>Future Land Use: Rural Residential</u> <u>Corresponding Zoning District: RR – Rural Residential District</u> (see description on page 64)

The Rural Residential (RR) area covers the majority of the Township not otherwise included in the public, recreational, and agricultural areas. This Area is intended to provide opportunities for the continuation of farming activities while also providing opportunities for rural residential lifestyles of comparatively low development densities. The intended low density development is supported by a number of factors including the frequently poor soil conditions for septic systems, limited availability of public services including police protection, the limited capacity of the predominantly unpaved roadway network, the interest of the Township to minimize land use conflicts between agricultural operations and neighboring land uses, and the public's interest in protecting the natural resources and rural character of the Township.

All typical farming activities, including the raising of crops and the use of stables, silos, and barns are encouraged provided that they meet the Michigan Department of Agriculture requirements for Generally Accepted Agricultural Land Management Practices (GAAMPs).

Maximum development densities of approximately 1 dwelling unit per 2 acres are recommended in the RR area, and the minimum lot size in the Rural Residential zoning district is 2 acres. In the future, Dexter Township should consider amending the Zoning Ordinance to allow the minimum lot size of the Rural Residential zoning district to be 1 acre, provided the number of lots that may be created shall not exceed a maximum density of 1 such lot for each 2 acres. Therefore, an owner of 8 net acres may do 3 1-acre divisions as long as the parent parcel stays at 5 acres – maintaining the overall density of 1 dwelling unit per 2 acres. This provision would encourage more 1-acre land divisions in the Rural

Residential zoning district and, in effect, greater preservation of farmland and open space.

The Rural Residential zoning district also allows for Open Space Community (OSC) development, which is described on **pages 64-65**.

The availability of public sewer in limited portions of the RR area is not a basis for higher development densities than those recommended above. Such sewer service is in response to documented environmental conditions associated with some of the Township's lake areas – conditions detrimental to the public health and welfare and the environmental integrity of these lakes.

# <u>Future Land Use: Lakes Residential</u> <u>Corresponding Zoning District: LR – Lakes Residential District</u>

(see description on page 64)

The Lakes Residential (LR) area is established in recognition of the existing lake residential development that has occurred in association with the Township's northern lake areas, and to provide limited opportunities for additional lake residential development.

This Plan recognizes the extremely fragile environments of the Township's lakes, the environmental, recreational, and aesthetic role these water resources play, and the particular challenges these resources present in regard to adjacent land use management. While the Township's water resources are, and have been, magnets for development, this development places tremendous pressure upon the lakes. These resources are at risk due to potential degradation through shoreline erosion, sediment discharge, runoff, and excess use of surface waters by watercraft.

This Plan encourages the continuation of the residential land use along the lakes but in a manner which more effectively recognizes the sensitive environmental qualities embodied in these resources and their aesthetic and recreational aspects. New development and redevelopment within the LR area should be generally limited to residential uses and at densities not exceeding one dwelling unit per ½ acre.

Keyhole, or funnel development, should not be permitted without adequate control measures. Keyhole development is the use of a waterfront lot as common open space for waterfront access for dwelling units located away from the waterfront. This results in potentially greater lake use than would "normally" occur if the lot was used for its intended use, such as a single-family residence. As surface water use increases, so does the potential for shore erosion from speedboats and water-skiers, loss in property values, oil and gas spillage from powerboats, increased noise, conflicts between lake users (sailboats, fishers, swimmers, etc.) and increased lake maintenance costs. Such threats become that much greater when keyholing occurs with the digging of canals to increase lake frontage access to back lot residences.

Similarly, land and water activities at the end of local roads which terminate at a water body's edge should be managed so as not to undermine public health, including water safety, or negatively impact property values and the quality of life experienced by abutting and nearby property owners.

# Future Land Use: Commercial

# <u>Corresponding Zoning District: C-1 – General Commercial District (see description on page 65)</u>

The Commercial area identifies areas in the Township that are planned for or are currently used for local commercial use. There is currently no identifiable community node or activity center within the Township where such uses are frequently guided. In fact, the limited commercial development presently in the Township is not centered in any particular area or along any particular road segment. Due to limited demand from Township residents, the lack of major thoroughfares in the community, and the more appropriate locations for intensive commercial uses in nearby urban communities such as Dexter, Chelsea, Pinckney, and Ann Arbor, future commercial development should be of a comparatively small scale and cater to the day-to-day consumer needs of area residents

and travelers. Commercial uses that cater to the consumer needs of a more regional population should be discouraged.

Access and road infrastructure play an important role in successful commercial development. For this reason, the intersection of North Territorial and Dexter-Pinckney Roads is the primary location for new commercial development at this time. This Plan generally supports the continuation of the small commercial uses located elsewhere in the Township and the replacement of such uses with other commercial uses that support the overall character of the community. However, the Plan strongly discourages the expansion of these commercial areas beyond that acreage currently zoned for such commercial use.

All future commercial uses should minimize disruption to the rural character of the Township and the use and enjoyment of nearby properties. Special site design measures should be pursued to assure the visual corridors of abutting public roads retain their current rural and open space character through appropriate siting and screening of parking areas, lighting, signage, building scale, architecture and materials, and related development features. The Commercial Planned Unit Development (C-PUD) overlay district, described on page 65, allows for zoning flexibility and mixed land uses if a proposed project exhibits superior site design. Larger commercial uses and buildings that conflict with the Township's dominant rural character and limited public services are discouraged. In light of the unique natural resources of the Township, including its ground water resources that are particularly vulnerable to contamination in certain locations, uses that are predominantly characterized by the use, storage and/or sale of toxic, hazardous, or otherwise injurious materials should not be permitted without assurances that the health, safety and welfare of the Township and its residents are adequately protected.

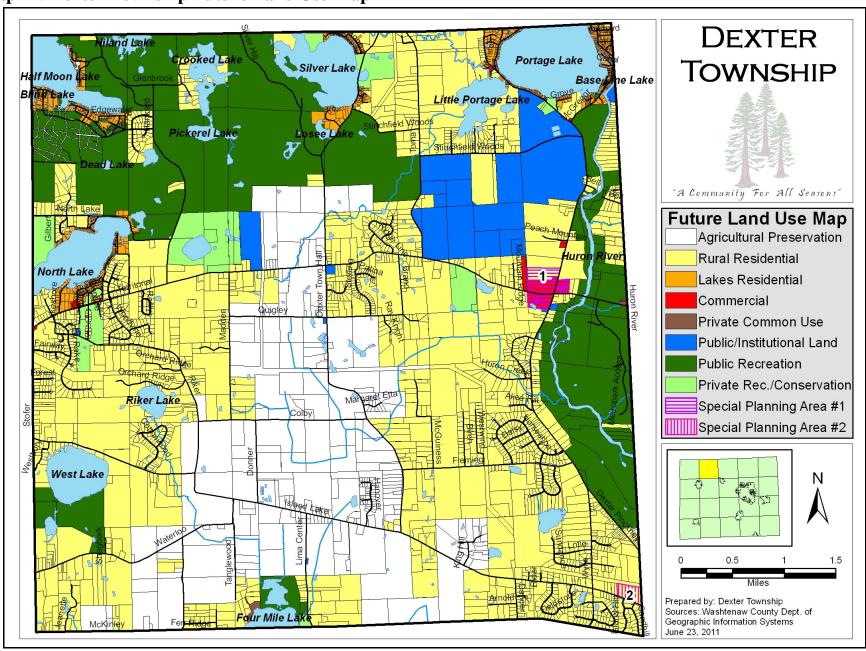
#### Future Land Use Overlay: Special Planning Area #1

Corresponding Zoning Districts: This land use overlay would apply to the RR and C-1 districts (if there is an apparent demand for additional commercial land uses that are intended to serve the local population), or a future Medium Density Residential (MDR) zoning district if higher residential densities are necessary to meet an apparent demand for smaller sized homes that are more affordable and/or for specialized housing for seniors or those with special needs. The average MDR zoning district density should not exceed 1 unit per ¼ acre, and densities higher than 1 unit per 2 acres should only be granted if the site is served by adequate infrastructure and public services, and exhibits superior design in regards to siting, screening, parking, lighting, signage, building scale, architecture and materials, vehicular and pedestrian circulation, and related development features.

# Special Planning Area #2

Corresponding Zoning Districts: This land use overlay would apply to the RR district or a future Medium Density Residential Zoning District if higher residential densities are necessary to meet an apparent demand for smaller sized homes that are more affordable and/or for specialized housing for seniors or those with special needs. The average MDR zoning district density should not exceed 1 unit per ½ acre, and densities higher than 1 unit per 2 acres should only be granted if the site is served by adequate infrastructure and public services, and exhibits superior design in regards to siting, screening, parking, lighting, signage, building scale, architecture and materials, vehicular and pedestrian circulation, and related development features. Due to this Area's proximity to the Village of Dexter and Webster Township, it will be important for Dexter Township to coordinate with these municipalities regarding growth management and infrastructure in and around this Area.

**Map 27: Dexter Township Future Land Use Map** 



Map 28: Dexter Township Zoning Plan Map

