

Master Plan 2005 Putnam Township LIVINGSTON COUNTY, MICHIGAN



Adopted November 16, 2005

Master Plan 2005 Putnam Township

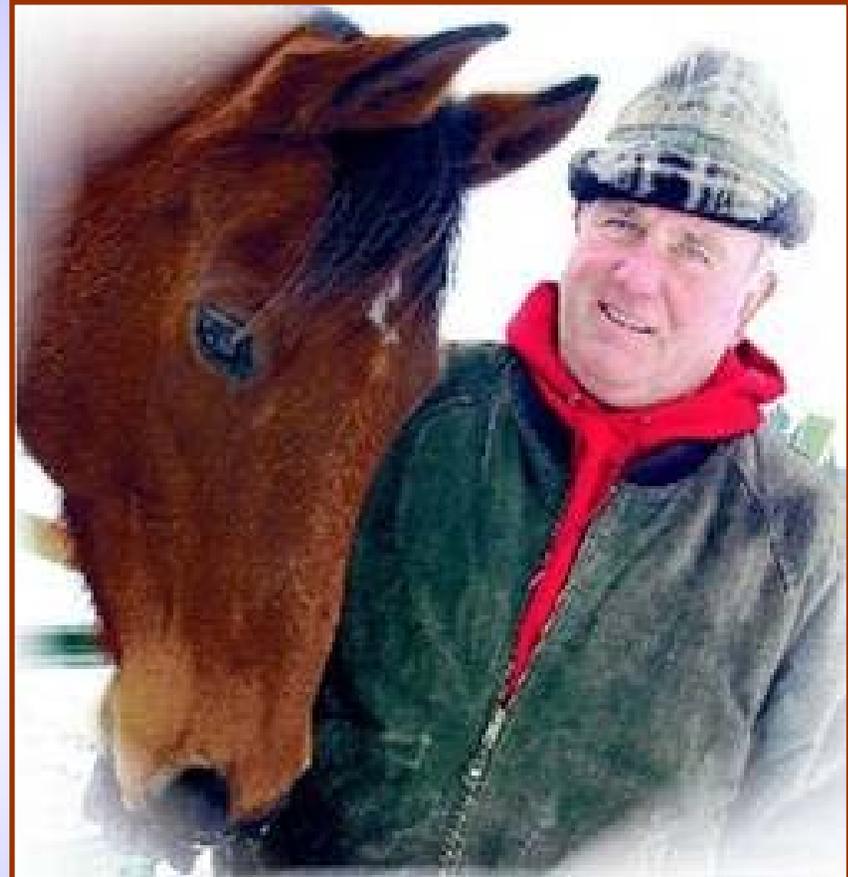
LIVINGSTON COUNTY, MICHIGAN

DEDICATION

In Memory of
ROBERT C. HOLLISTER
3/19/42-7/15/05

Twenty Years of Service to Putnam Township
Township Supervisor 11/04-7/05

For his long and distinguished public service to Putnam Township, his contribution to this document and, especially, for his tireless advocacy of township residents' desire to **keep Putnam Township rural.**



Putnam Township
Master Plan 2005
TABLE OF CONTENTS

CHAPTER 1 Introduction..... 1

THE ROLE OF THE MASTER PLAN 1
 HOW DOES THE MASTER PLAN AFFECT YOU?.... 4
 HOW SHOULD YOU USE THIS PLAN? 4

CHAPTER 2 Vision and Goals 5

GOALS: NATURAL ENVIRONMENT 6
 GOALS: GROWTH MANAGEMENT 7
 GOALS: INFRASTRUCTURE 8

CHAPTER 3 Vision Assessment..... 10

VISION - GROWTH MANAGEMENT 10
 DEMOGRAPHICS..... 11
 HOUSING 15
 LAND USE 16
 PROJECTED CHANGE 18
 VISION - INFRASTRUCTURE 20
 EXISTING CONDITIONS 23
 A BALANCING ACT 26
 UTILITY SERVICES..... 28
 VISION - NATURAL ENVIRONMENT 29
 EXISTING CONDITIONS 30

OPEN SPACE 32
 NATURAL FEATURES..... 34

CHAPTER 4 Future Land Use 38

FUTURE LAND USE CATEGORIES 40
 AP-AGRICULTURAL PRESERVATION..... 40
 RP-RURAL PRESERVATION 44
 LDR-LOW DENSITY RESIDENTIAL 45
 MDR-MEDIUM DENSITY RESIDENTIAL..... 46
 HDR-HIGH DENSITY RESIDENTIAL..... 47
 LR-LAKE RESIDENTIAL 48
 MHP-MANUFACTURED HOME PARK..... 49
 LB-LOCAL BUSINESS DISTRICT 50
 GB-GENERAL BUSINESS DISTRICT 51
 LI-LIGHT INDUSTRIAL..... 52
 EVALUATING LAND USE CHANGE 53
 CONCLUSION..... 54

FUTURE LAND USE MAP 55

APPENDIX 1: Access Management.... 56

APPENDIX 2: Equine Data..... 62

RESOLUTION OF ADOPTION..... 64

*Putnam Township
Master Plan 2005*
INTRODUCTION

CHAPTER ONE

THE ROLE OF THE MASTER PLAN

Every community has a responsibility to look beyond day-to-day zoning issues and look at the long-range consequences of their decisions. Similarly, the community must have a document that provides guidance for land use and development by considering a wide range of possible futures. For Putnam Township, this long-range view is provided through this Master Plan.

New development in Putnam Township over the past few years has highlighted growing concerns over land use. Township leaders and residents have become concerned about losing rural character. This is a valid concern. A common sentiment in rural areas presents a seeming paradox: people move to rural areas “to get away from” growth in other places, then demand that the community “not become” the same kind of place from which they escaped. At the same time, the more people who move to rural areas, the more development they themselves create.

In truth, no community can solve every problem or answer all of the contrasting concerns about land development. But advocates for both development and preservation have common goals; each wants “better planning.” Decision makers, then, are tasked with balancing the interests of landowners wishing to develop their properties and

maintaining the features that attracted people to the area in the first place.

Those “quality of life” features – farms, lakes, rural views, natural features, and schools – are what make Putnam Township unique. A successful Master Plan must consider these elements, along with protection of the environment, and take steps that will ensure that development “fits” in the area. Accordingly, use of the right planning tools is needed to assure that the township continues to be a special place.



GOAL:

Putnam Township will plan a land use pattern that represents a predominately rural residential character, with quality single-family housing at densities appropriate to its low-density setting.

How Will the Plan Be Used?

The Plan serves many functions and can be used in a variety of ways, but its usefulness is determined by the willingness of the Township to actively support and implement its vision and goals. A plan that is not actively followed and implemented may lead to problems in the future. Failure to follow the plan will discredit any attempt to use the plan as a defense for actions that may be challenged by property owners or developers.

Likewise, consistent and vigorous use of the plan will lend credibility to implementation of controversial decisions on rezonings, or other zoning actions. While the courts of the State of Michigan do not recognize the absolute authority of the Master Plan, they do lend much more credibility to actions supported by careful planning than those that appear to be taken arbitrarily against an individual property owner.

1. The Master Plan is a general statement of the Township's vision, goals and policies. It provides a single, comprehensive view of the community's desires for the future.

2. The Plan aids in daily land use decision-making. The vision and goals outlined in the Plan are intended to guide the Planning Commission and the Township Board in their deliberations on zoning, subdivision, capital improvements, and other matters relating to land use and development. Accordingly, the Plan provides a stable, long-term basis for decision making which will provide a balance of land uses and an orderly development process.
3. The Plan provides the statutory basis upon which zoning decisions are based. The Township Zoning Act (Act 184 of 1943) requires that the zoning ordinance be based upon a plan designed to promote the public health, safety, and general welfare. It is important to note that the Master Plan and accompanying maps do not replace other Township Ordinances, specifically the Zoning Ordinance and map. Zoning is only one of the legal devices used to implement the Master Plan.

The great French Marshall Lyautey once asked his gardener to plant a tree. The gardener objected that the tree was slow growing and would not reach maturity for 100 years.

The Marshall replied, *'In that case, there is no time to lose; plant it this afternoon!'*

4. The Plan attempts to coordinate public improvements and private developments. For example, public investments such as road or utility improvements should be located in areas identified in the Plan as resulting in the greatest benefit to the Township and its residents.

The Master Plan is a component of the decision making process when proposing public services. To be fiscally

responsible and give the Township a measure of control over future growth, new infrastructure should correspond with the Master Plan.

5. The Plan serves as an educational tool and gives citizens, property owners, developers, and adjacent communities a clear indication of the Township's direction for the future.



Keeping the Plan Current

Fulfilling the Vision outlined in the Plan will not occur overnight. The Master Plan provides a sense of direction for the present and is a guide for the future. Understanding this, the Plan should not be rigidly administered; changing conditions

that can affect its original intentions should be acknowledged.

However, a Plan that is not referenced on a continual basis, or one that is outdated, can weaken Township decisions. Over time, goals may be achieved and new ones needed, or individual zoning decisions may change the direction of development in a certain part of the township. Where events lead to land use approvals that are contrary to the plan, it should be amended to reflect these changes.

The Planning Commission should conduct an annual meeting to review the Plan, ensuring that changes are taken into consideration and that amendments are made to keep it current and consistent with Township philosophies. The Planning Commission should also solicit public opinion, on a periodic basis, through the use of public surveys. By routinely following these procedures, the Master Plan will continue to be an up-to-date and reliable planning tool.

The Township Planning Act requires that Townships review their current Master Plan at least every five years to determine whether amendments are needed, or if the process for a new Plan should be started. An annual Planning Commission review, documented through meeting minutes, will not only fulfill this requirement, but will also ensure that the Plan remains a relevant and useful document.

Organization of the Putnam Township Master Plan

As a “blueprint,” the Master Plan not only looks at the current state of Putnam Township, but where it has been and where it would like to go. In order to accomplish this, the Plan provides information on land use, infrastructure improvements, preservation of open space, and other relevant issues.

The Vision and Goal statements in Chapter 2 provide the philosophical basis for the Plan, while Chapter 3 provides the Plan's factual basis. The land use elements of Chapter 4 present a strategy to provide the proper land use balance and means to implement the Plan determined to be appropriate for Putnam Township.

Development of the Master Plan required individuals and different groups concerned with the future of Putnam Township to work together. Through its review of existing conditions and land uses and extensive public discussions, the community has developed this Master Plan to preserve and protect the character of Putnam Township.

HOW DOES THE MASTER PLAN AFFECT YOU?

How the Master Plan affects you depends on your particular situation:

- If you are a *property owner*, you may have several interests, including not only your property, but properties that are in a similar land use category.
- As a *homeowner*, you will be interested in the properties in your immediate neighborhood. You may wish to know what uses are proposed for vacant land in your area.
- As an *owner of vacant property* you will want to know what land uses are proposed for your property.
- As a *township resident* you will be interested in the overall concepts of the Plan, as expressed in its Goals. These statements will give you an indication of the Planning Commission's view of the township now, and in the future.

HOW SHOULD YOU USE THIS PLAN?

Again, use of the Plan depends on your interest in the future of Putnam Township. Generally, here is a procedure you should follow:

Step #1 What land use is proposed for your property, or the area surrounding your property?

This information is on the Future Land Use map (see p. 56). This map is divided into separate land use categories. Find the land use category in which your property is located.

Step #2 Determine how the Planning Commission views development in your area.

The text of the Future Land Use Plan (Chapter Four) will indicate the planned development within your area; it may be fairly specific, or somewhat general. This part of the Plan is intended to provide some reasonable direction to the Planning Commission, as well as provide property owners information about development within the township.

Step #3 Determine the meaning of the land use designation for your property.

In Step #1 you were asked to determine the land use category for your property. Find the category your property is located in and read the land use designation. Depending on the nature of your interest, this may be as far as you want to go. If you have a specific proposal that does not match the expectations of the Plan, you may want to look at it in more detail.

Step #4 Determine how your property is affected.

The Future Land Use designation will indicate the planned use for your property. *This does not mean that you cannot continue the use that you currently have.* Land use within Putnam Township is also affected by the zoning for your property. See the Zoning Ordinance or call the Township offices for more information.

The Master Plan may have a profound impact on the future of your property, regardless of whether you are a landowner or a homeowner. As a resident of Putnam Township, it is important that you become familiar with the Plan and what it may mean to you and your community.

*Putnam Township
Master Plan 2005*
VISION AND GOALS

CHAPTER TWO

A vision is a statement that describes how the community sees its future unfolding. Communities that deal successfully with the challenges they face have developed a clear picture of where they want to go and also have a clear sense of their past.

Developing a “Vision” is often the first step in the long-range planning process. A vision provides a way to seek agreement about the desired outcome of the Plan by painting a picture of the kind of township residents want in the future.

The Township Zoning Act for Michigan requires that the Plan use a 20-year horizon. Realistically, no one can, with confidence, predict events that may occur over the next year, much less the next 20. But the Plan can be used to establish a *direction* for the Township to follow, even though unanticipated events may alter the specific path.

The intent of Putnam Township’s Vision is to reflect its common values, while, at the same time, recognizing the needs of its diverse population. Moreover, a vision cannot be a “cookie cutter” statement; it must reflect those qualities that make this township unique.

Having a vision can motivate decision makers and residents alike by giving a clear sense of direction. However, a vision is an ideal; it may not be attained in its entirety, but it can and

should guide community actions. Moreover, the vision is not dogma, set in stone. Putnam Township will regularly revisit its vision to account for those changes that were not anticipated.

The Vision for the Township was drafted through a community workshop. A large group of residents gathered to discuss their preferences for the township’s future. Those attending met in four smaller groups, allowing a more intimate discussion as they worked their way through the vision process. Each group was asked to develop three subject categories to be addressed in the vision. Surprisingly, each came up with the same categories. The three categories were:

- Natural Environment
- Growth Management
- Infrastructure

Each group was asked to develop a series of “descriptors” to help characterize each category. Finally, a closing statement was developed that provided the “end result” of the Vision for Putnam Township. The following statement represents the results of this effort.



OUR VISION FOR PUTNAM TOWNSHIP IS A PLACE CHARACTERIZED BY ...

§ **NATURAL ENVIRONMENT** ... PRESERVED AND DEVELOPED PRISTINE AND HIGH-QUALITY NATURAL AREAS, RECREATIONAL OPPORTUNITIES AND TRAILS, WATERWAYS, WETLANDS AND WOODLANDS.

§ **GROWTH MANAGEMENT** ... LOW-DENSITY, RURAL ATMOSPHERE AND APPROPRIATELY LOCATED CONCENTRATIONS OF HOUSING, ABUNDANT NATURAL RESOURCES AND RECREATION, ACHIEVED IN COOPERATION WITH OUR NEIGHBORING COMMUNITIES.

§ **INFRASTRUCTURE** ... A TRANSPORTATION SYSTEM THAT INCLUDES A COMPREHENSIVE NETWORK OF EFFECTIVE ROADWAYS AND CONNECTING TRAILS; AND OTHER RESPONSIVE COMMUNITY SERVICES AND INFRASTRUCTURE, INCLUDING PUBLIC SAFETY...

... THAT TOGETHER MAKES THE TOWNSHIP A RURAL TREASURE WITH ABUNDANT NATURAL RESOURCES, RECREATION, AND A PREMIER QUALITY OF LIFE WORTH COMING HOME TO.

REALIZING THE VISION

“Are we prepared to take the actions necessary to achieve this vision?”

Once the vision was in place, a series of goal statements were needed to make the vision real. The Planning Commission first realized that a series of actions would be required if the vision was to be fulfilled. In response, they developed a series of Goal statements, based on the three vision elements of Growth Management, Natural Environment, and Infrastructure.

The Commission noted that in order to be effective Goals should:

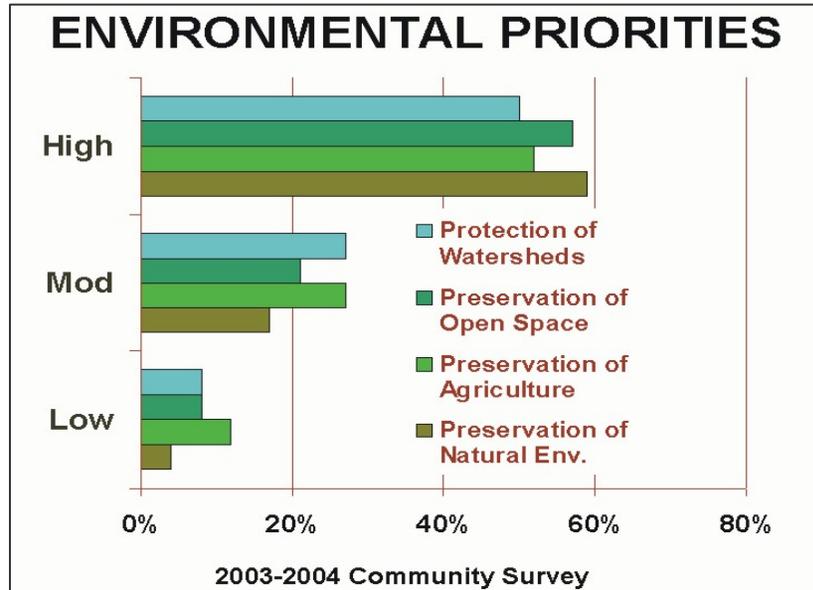
1. be **achievable**;
2. be **realistic**;
3. be broad enough to **inspire** but narrow enough to meet #1 and #2;
4. be **limited** to no more than 2-3 major points;
5. paint a **picture** of the future (10-20 years) as township residents would like to see it.

The resulting Goals were based on the Vision, results of the Community Survey, and a series of meetings with the Planning Commission, Township Board, and residents when there were opportunities to comment on the direction of the Master Plan.

GOALS: NATURAL ENVIRONMENT

Putnam Township will adopt measures to protect its environmental resources, such as wetlands, lakes, woodlands, and other pristine natural features, from the negative impacts of new development.

The Township will cooperate with the State, County, and surrounding communities to enhance the management of environmentally sensitive areas to take advantage of recreational opportunities while protecting these resources.



Community Support

The 2003-2004 Community Survey evidenced strong support for protecting natural features and preserving agricultural activities. The two strongest priorities related to Master Plan policies were:

- Protection of natural features of the township such as open space, woodlands, wetlands and watersheds – supported by 79% of respondents;

- Providing a low-density rural atmosphere – supported by 67% of respondents.

In addition, survey respondents were asked to identify specific priorities regarding environmental features in the township. Watershed protection and preservation of open space, agriculture, and the “natural environment” all rated high.

GOALS: GROWTH MANAGEMENT

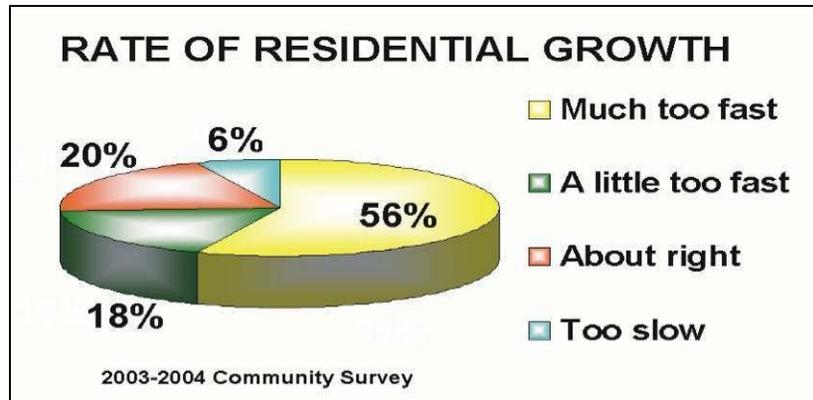
Putnam Township will plan a land use pattern that represents a predominately rural residential and agricultural character, with quality single-family housing at densities appropriate to its low-density setting.

Commercial and other nonresidential development shall occur on a limited, small-scale, basis; be located in appropriate areas where nearby residential uses are not adversely affected; and be designed to preserve the rural character qualities of the township.

The Township shall seek to coordinate land use with the Village of Pinckney to complement existing uses within each community, take advantage of existing community services to avoid duplication, and preserve the rural character of the township.

Community Support

The Community Survey found that 67% of the respondents felt that a high priority of the Master Plan should be to “provide a low density rural atmosphere.” When asked about desired residential densities, 45% indicated a preference for one house on a parcel greater than 5 acres. The preference for both one house on 2-5 acres and one house on a one-acre parcel was slightly less (30%). As a result of this guidance residential densities in the Master Plan reflect a strong position toward protecting natural features and providing a low-density rural atmosphere.



The Survey also found that there were significant concerns about the rate of township growth. While the Survey did not include any responses that might indicate what specific concerns accounted for these answers, some may be evident from other questions, such as concern about groundwater quality, a quality road system, preservation of agricultural activities, and the various issues related to the protection of natural features.

On the other hand, only about 57% of respondents felt that having additional commercial development was a priority

(moderate or high priority); even fewer favored industrial development (41% moderate or high priority). Accordingly, any plans for nonresidential development must be carefully reviewed to ensure that nearby residential areas are unaffected and that the overall rural character of the township is preserved.

GOALS: INFRASTRUCTURE

Putnam Township will provide, or coordinate with the Village, State and County agencies to provide, the necessary public facilities and services that will serve the needs of its residents and preserve the township’s rural character.

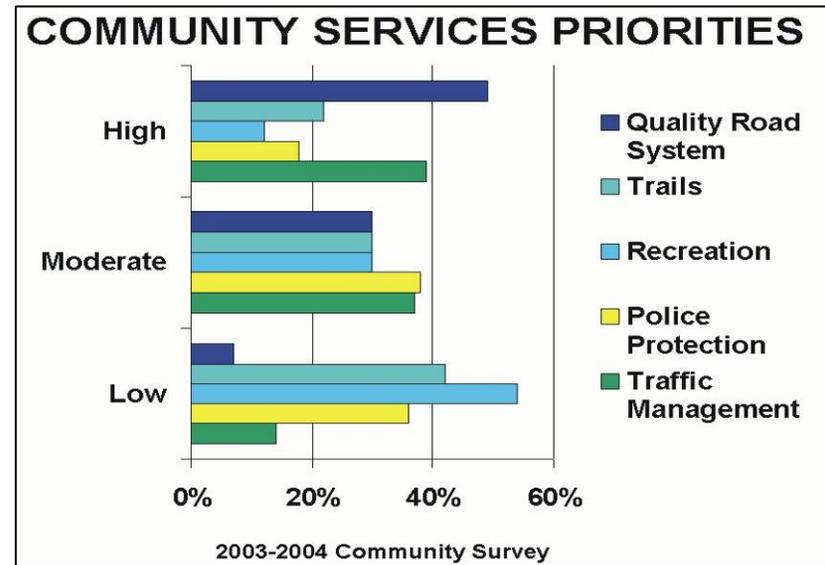
The Township will plan an efficient transportation roadway and pedestrian network that considers such factors as resident desires, land use, traffic conditions and roadway function, and other appropriate elements.

Community Support

At times, new residents, particularly those moving from larger, or more developed communities, have an unrealistic expectation of service levels. This is complicated by the fact that some services are not directly controlled by the Township and are often provided in cooperation with other units of government.

As the area’s population increases, it is certain that additional service demands will be placed on the Township, as well as applicable County and State agencies. Limited resources at all levels of government will create the need for carefully coordinated policies between the Township and these

agencies. Although some concerns were noted regarding the need for recreational activities and police protection, the Community Survey indicated the greatest support for an improved transportation network, including a “quality road system” and “traffic management.”



*Putnam Township
Master Plan 2005*
VISION ASSESSMENT

CHAPTER THREE

Introduction

Data gathering is a normal part of any township master plan. However, information is often just compiled and reported; rarely is it analyzed to see how it reflects the character of a community. Just as important is the need to know if conditions as they exist today will allow the Township to shape its vision for the future.

What follows, then, is a thumbnail sketch of Putnam Township in 2004 and how it compared to Livingston County and its neighbors. This careful look at population growth, age, and other vital elements of the township’s people and its use of land provided a base for realizing the future. In keeping with the vision, the following analysis is based directly on the three vision elements of Growth Management, Infrastructure, and the Natural Environment.

VISION - GROWTH MANAGEMENT

Vision for the Future Putnam Township’s Vision is based on specific topics important to the Master Plan elements; among these is Growth Management. This vision declares that in the future Putnam Township will be characterized by:

- *A low-density, rural atmosphere.*
- *Abundant natural resources and recreation opportunities.*
- *Appropriately located housing.*

- *Cooperation with our neighboring communities*

How Have We Done? Putnam Township is a relatively low density, rural community characterized by farms, fields, woodlots, wetlands, lakes and parks. Based on that description it is fair to say that conditions today are in keeping with the Growth Management Vision Statement; however, can that vision hold into the future?

To date, the existing rural character of the township has been maintained in most areas due to a number of factors.

- Natural features - wetlands, lakes, tree stands and other features have tended to direct growth where these features present fewer development constraints.
- A limited road network, including many miles of unpaved roads, has kept development densities lower in certain areas. Historic development patterns have resulted in many of the township’s older homes and farmsteads being located along existing roads and streets.
- Vast public and institutional land holdings have prevented development in key areas of the township.
- The Village of Pinckney and its immediate vicinity accounts for much of the higher density residential development, as well as the commercial growth that may otherwise have been located elsewhere in the township.

Some development has formed small neighborhoods that are set back from gravel roads lined with large trees. This, along with gently rolling topography, has masked much of this development, resulting in a setting that is indeed very rural.

Recent developments have been at a larger scale, on larger land parcels than those in the past. Homes built during the 1990-2000 period are located on lots that are an average of

1.75 acres and are consuming the very woodlots and fields that give these areas their unique character.

Current development patterns have responded to natural and environmental features and the township has not, to date, witnessed major intrusions into steeply sloped hillsides, wetland and floodplain areas. The only major exceptions are the residences located in floodplain areas around Portage Lake and Patterson Lake (see Map 1).



Given that residential development, the dominant land use in Putnam Township, has been generally responsive to natural and environmental features, it is possible to conclude that existing housing has generally been appropriately located. In addition, more intense residential subdivisions located along Dexter-Pinckney Road are situated along the Village of Pinckney's growing southern border. That type of development would be consistent with cooperative and planned growth between the Village and the Township.

Facts, Figures and Trends

Demographics



Population Putnam Township has been a steadily developing community; however, its growth rate has typically been somewhat slower than that of Livingston County. So far, Putnam Township's greatest

period of growth occurred between 1960 and 1980 (see Figure 1). During that time, the township experienced unprecedented growth, adding 2,782 residents (an increase of 189 percent). This growth rate, however, was eclipsed by neighboring Hamburg Township (255%) during that same period.

This rapid change gave way to an abrupt slowing of population growth and building permit activity between 1980-1990. This period coincides with a general economic downturn in Michigan during the early half of the decade. Between 1980 and 1990, Putnam Township's growth rate slowed to 7.7%, significantly lower than all of Livingston County (15.3%) and Hamburg Township (15.6%).

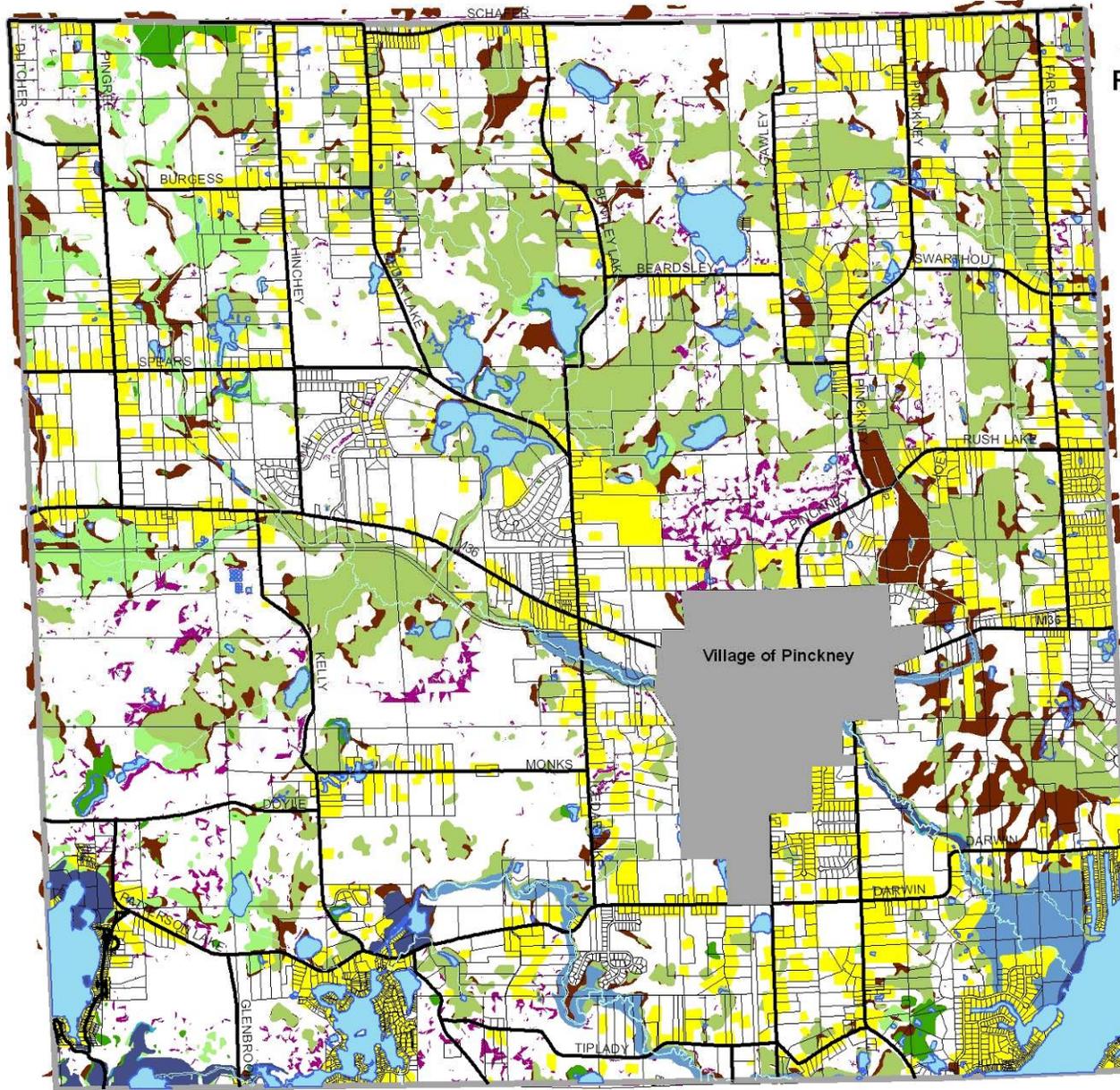
**Population Change In Putnam Township
Figure 1**

Year	Population	Change	Percent Change
1960	1,471	-	-
1970	2,433	962	65.4%
1980	4,253	1,820	74.8%
1990	4,580	327	7.7%
2000	5,359	779	17%
2004	5,915	556	10.4%

Source: US Census and SEMCOG

MAP 1

Putnam Township Constraining Environmental Features/Existing Residential Development Livingston County



Wetlands / Water Bodies

- Intermittently Exposed or Semipermanently Flooded
- Seasonally or Temporarily Flooded
- Saturated
- Lakes/Rivers & Permanently Flooded

Steep Slopes

- 20% or Greater

Development

- Residential (2000)
- Not Residentially Developed

Flood Zone

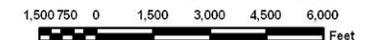
- A
- AE
- X500

Soils

- Hydric



LSL Planning, Inc.



Sources:
SEMOG (1990/2000)
Michigan Center for Geographic Information (2004)
Livingston County IT Department, GIS Management Division (2004)

From 1990-2000, a time of strong economic growth, Putnam Township's population began to grow, albeit at a slower rate (17%). This compares to Livingston County, which grew 35.7%, and Hamburg Township, 57.7%.

Recent Southeast Metropolitan Council of Governments (SEMCOG) estimates place Putnam Township's current population at 5,915; an approximately 10.4% growth rate for the period from 2000 to 2004. This compares to an 8.7% projected growth rate for Hamburg Township and 14% for all of Livingston County for that same period. Future population estimates for Putnam Township developed by SEMCOG indicate steady growth continuing with the Township reaching a population of 8,403 by 2030.

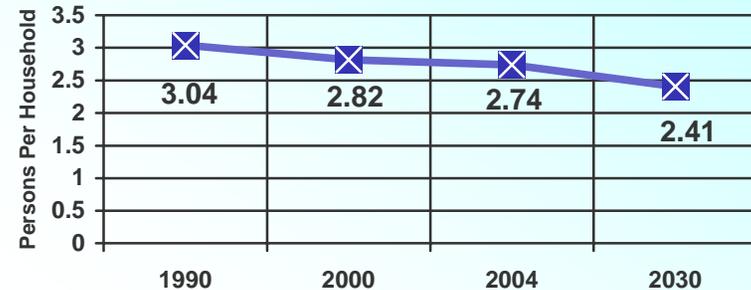
Household Characteristics Conforming with a national trend, Putnam Township continues to see a decline in average household size. In 1990, the average was 3.04 persons per household, dropping to 2.82 in 2000. According to SEMCOG, 2004 figures indicate a further drop to 2.74, which is a more rapid decline than Hamburg Township or Livingston County. SEMCOG estimates indicate a continued drop in household size to 2.41 residents per household by 2030.

Both locally and nationally, the decline in average household size is due to a combination of several factors:

- An older population living alone or in smaller households.
- Declining fertility rates (fewer children born per female in child-bearing years), and delays in family formation and child rearing, both of which are related to social and economic trends.
- Changing household and family structure (more single person or single parent households).

Putnam Township Household Size 1990-2030

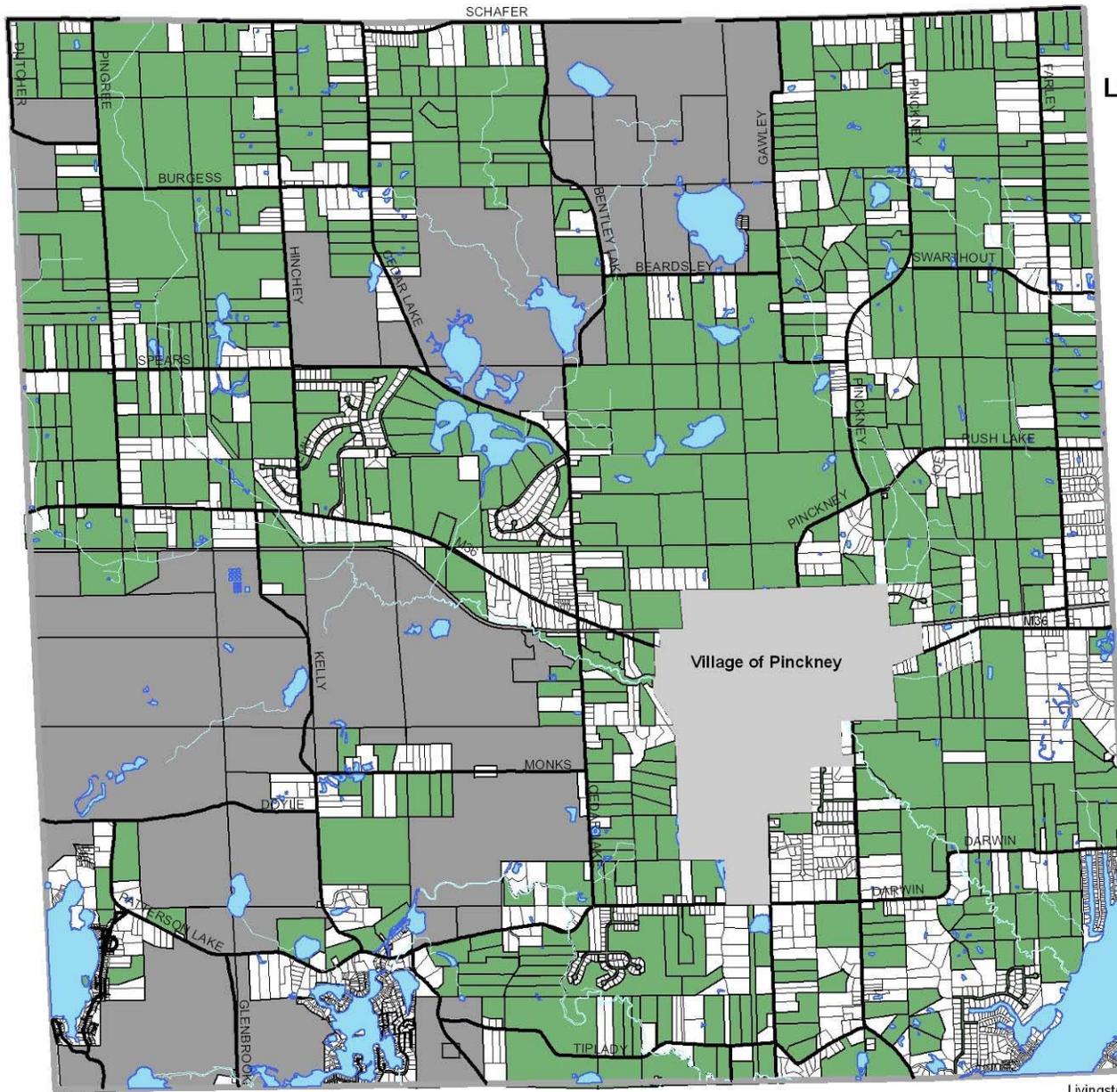
Source: U.S. Census, SEMCOG



This decline in household size and an increasing number of smaller households is one factor that helps explain continued demand for housing in the township even with a relatively modest population increase.

Another important indicator of change is whether or not a household has children. According to 2000 SEMCOG data, 62% of households in the township were without children; that is expected to rise to 75% by 2030. Coupled with an aging population, this indicates a large percentage of “empty nesters” and affects future demand for certain types of residential development. This so-called “move down” housing is typically smaller in size, located on smaller lots closer to shopping and services, and is usually located within a larger development. As this trend develops, it may suggest increased interest in the development of larger land parcels (see Map 2).

MAP 2 Putnam Township Large Parcels (Over 10 Acres) Livingston County

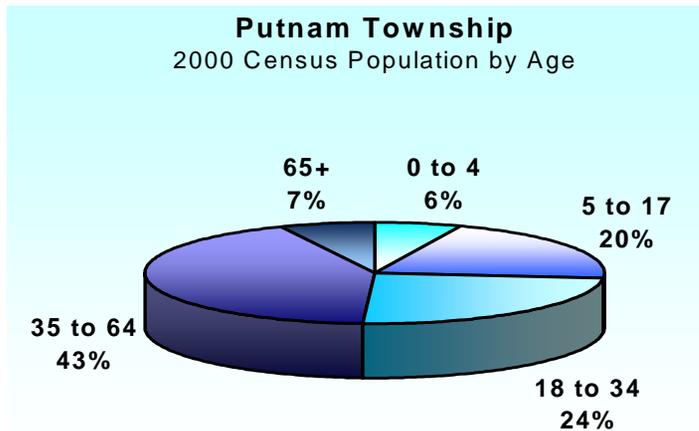


- = Institutional Parcels
- = Parcels Greater than 10 Acres

1,300 0 1,300 2,600 3,900 5,200 Feet

Sources:
Michigan Center for Geographic Information (2004)
Livingston County IT Department, GIS Management Division (2004)

Age Putnam Township, like much of the country, is aging. Children between the ages of 0-17 decreased from 29.4% of the population in 1990 to 25.8% in 2000. Similarly, the age bracket 18-34 declined from 25% of the population to 19% during that same period, while the 35-64 group increased from 39% to 48%. This latter bracket is typically the age group either at or approaching maximum earning potential and wealth.



Forecasts predict this trend to continue; by 2030, 58% of the population in Putnam Township is expected to be older than 35, and 11% will be 65 and older. Given that trend, Putnam Township can expect a greater demand for senior services, health care, public transportation alternatives and more varied senior housing choices.

Income In 2000, median household income in Putnam Township was \$62,516; higher than Michigan's (\$44,667), but lower than either Livingston County (\$67,400) or Hamburg Township (\$75,960). Coupled with housing costs and rents

(see *Housing Value*) this would indicate that Putnam Township has attracted households seeking better housing value. This trend altered somewhat between 1990 and 2000 as Census data indicated a distinct rise in the percentage of higher income households. Again, coupled with the increasing number of households, this trend may result in some demand for larger residential lots and developments with more amenities.

Housing

A community's available housing has a great influence on its population's characteristics and demographic trends. It affects the character of a community, particularly through residential densities, visual character, and the consumption of land for development. The mix of housing units, their age and cost, affects demand for housing and determines who can afford to purchase those homes.

Type Putnam Township is not that dissimilar from the rest of Livingston County as it is characterized by predominately single-family homes. Single-family detached residences represented 91% of Putnam Township's existing housing in 1990, increasing to 92% in 2000. This is higher than Livingston County where single-family detached homes represented 81% of the housing stock in 1990 and 82% in 2000.

Housing Tenure Based on 2000 Census data, 83% of all residential units in Livingston County were owner occupied, as compared to the state average of 73.8%. Hamburg Township exceeded the County's rate at 86% owner occupancy; however, Putnam Township is characterized by a slightly higher percentage of rental units than its neighbor, with 80% of all units being owner occupied.

Value With land values lower than its neighbors, Putnam Township has attracted residents seeking a value advantage, trading a longer commute for larger homes and open spaces. Growth in Putnam Township has historically been slower than that of Livingston County and Hamburg Township, but forecasts indicate that the township will maintain steady growth for the foreseeable future, perhaps due in part to its affordability advantage.

Comparatively, Putnam Township is a more affordable place to live with a median rent of \$506, compared to Livingston County (\$616) and Hamburg Township (\$726). Housing values for owner occupied units reflect a similar condition. Putnam Township is the most affordable with a median housing value at \$177,600, which is lower than the county median value of \$187,500 and Hamburg Township’s \$204,200.

Residential Density In terms of residential construction, Putnam Township has issued and continues to issue a greater percentage of single-family detached building permits than does Livingston County (see Figure 2). Coupled with overall residential density (see Figure 3), clearly both Livingston County and Putnam Township continue to develop single-family lots at lower densities. In 1990 the average lot size in Putnam Township was 1.61 acres, increasing slightly to 1.64 acres in 2000.

% OF SINGLE FAMILY/DETACHED CONDOMINIUM BUILDING PERMITS AS TOTAL OF ALL HOUSING				
Figure 2				
Jurisdiction	1993-97	1998-2002	2003	2004
Livingston County	95%	82%	75%	80%
Putnam Township	100%	98%	81%	100%
Source: SEMCOG				

Single-family detached lots in Livingston County averaged 1.35 acres in 1990 and 1.39 acres in 2000. From 1990 to 2000, the average lot size in Putnam Township was 1.75 acres; compared to 1.47 acres for Livingston County. This means that both Putnam Township and Livingston County consumed an increasing amount of land even with densities that could best be characterized as suburban in nature.

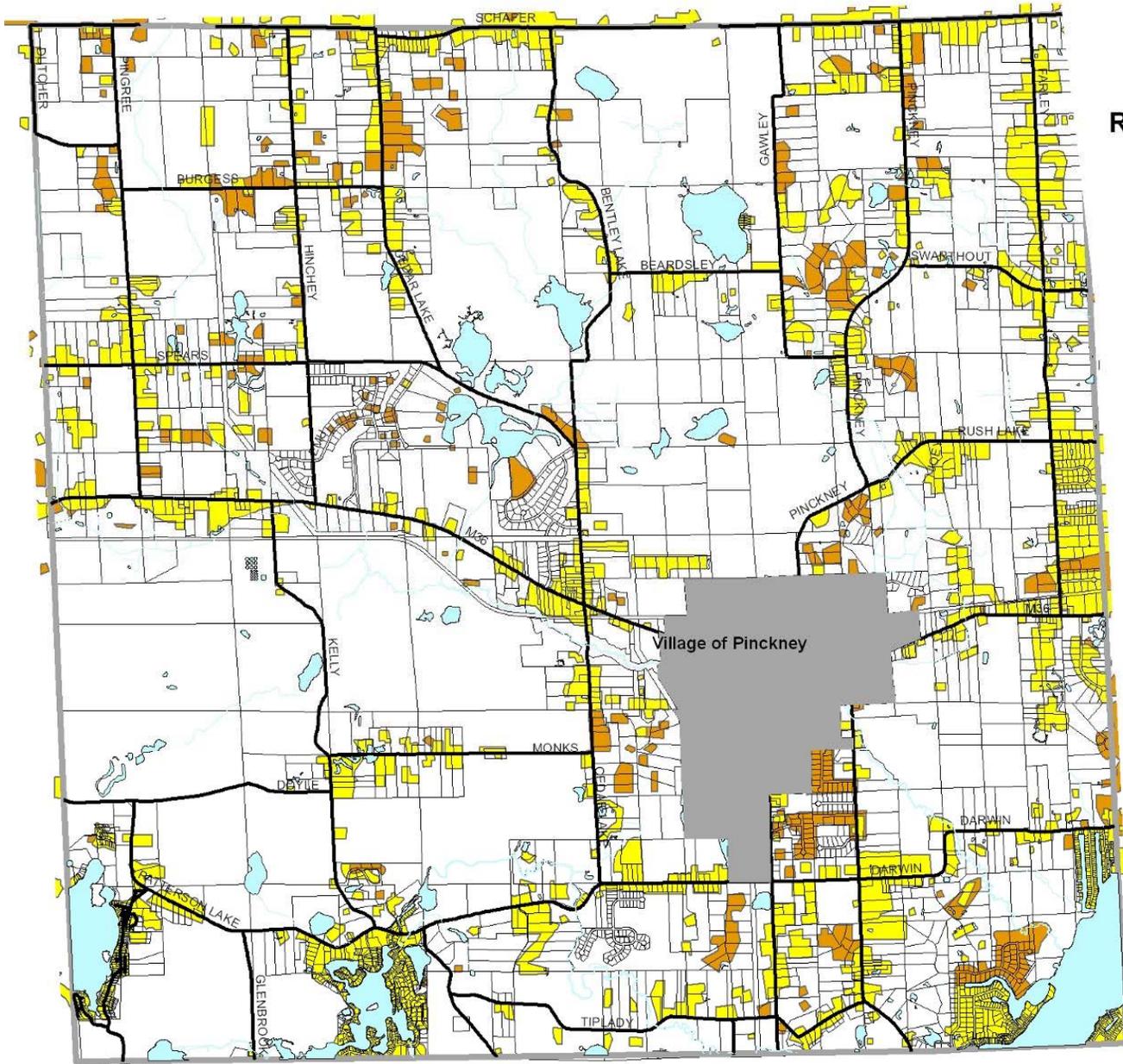
RESIDENTIAL DENSITY (UNITS/ACRE)			
Figure 3			
Putnam Township	1990	2000	1990-2000 Increment
Single Family Land Use	0.62	0.61	0.57
Gross Residential Density	0.63	0.62	0.58
Livingston County	1990	2000	1990-2000 Increment
Single Family Land Use	0.74	0.72	0.68
Gross Residential Density	0.81	0.79	0.77
Source: SEMCOG			

Land Use

Putnam Township is a relatively rural community - 84% of the township’s land area is dominated by agricultural uses, grasslands, woodlots, recreation areas, lakes and wetlands. Hamburg Township, its nearly equally sized neighbor, is somewhat more urbanized with the same uses representing only 66% of its land area.

MAP 3 Putnam Township Residential Development Patterns Livingston County

- Residential Land Uses (1990)
- Residential Land Uses (2000)



1,800 900 0 1,800 3,600 5,400 7,200 Feet

Sources:
SEMOG (1990/2000)
Michigan Center for Geographic Information (2004)
Livingston County IT Department, GIS Management Division (2004)

Development Patterns Putnam Township is not that dissimilar from other rural townships in that historic development patterns have been imprinted by the layout and location of existing streets and roads (see Map 3). This has created a land use pattern of individual residential homes that directly front onto main roads, or small scale residential neighborhoods that are located near main roads.

From a development perspective, this pattern is a very efficient way to use land; main roads already exist, traffic volumes on those roads are low, and growth can be phased over a long period with little or no additional cost to either the community or the developer. This pattern does not impose significant impacts as long as densities are low and individual homes are well spaced.

However, as the number of homes either located along or directly adjacent to main roads increase, so do the problems associated with this development pattern. These problems may include:

- Loss of rural charm, since roads become lined with development;
- Traffic flow is compromised by an increasing number of driveways, each being a potential traffic conflict point; and
- Difficulty in developing property behind existing strip residential developments.

This last problem, the “back lot” properties, is particularly difficult one in that they frequently take longer to develop since roads and infrastructure must be extended to serve them and they are frequently passed over in lieu of properties with already existing road frontage. Unfortunately, once growth pressures and economic considerations begin to make these properties viable, surrounding neighborhoods are already in place. Consequently, existing neighbors view this “infill”

development as consuming “their open space” and are often vehemently opposed to their approval.

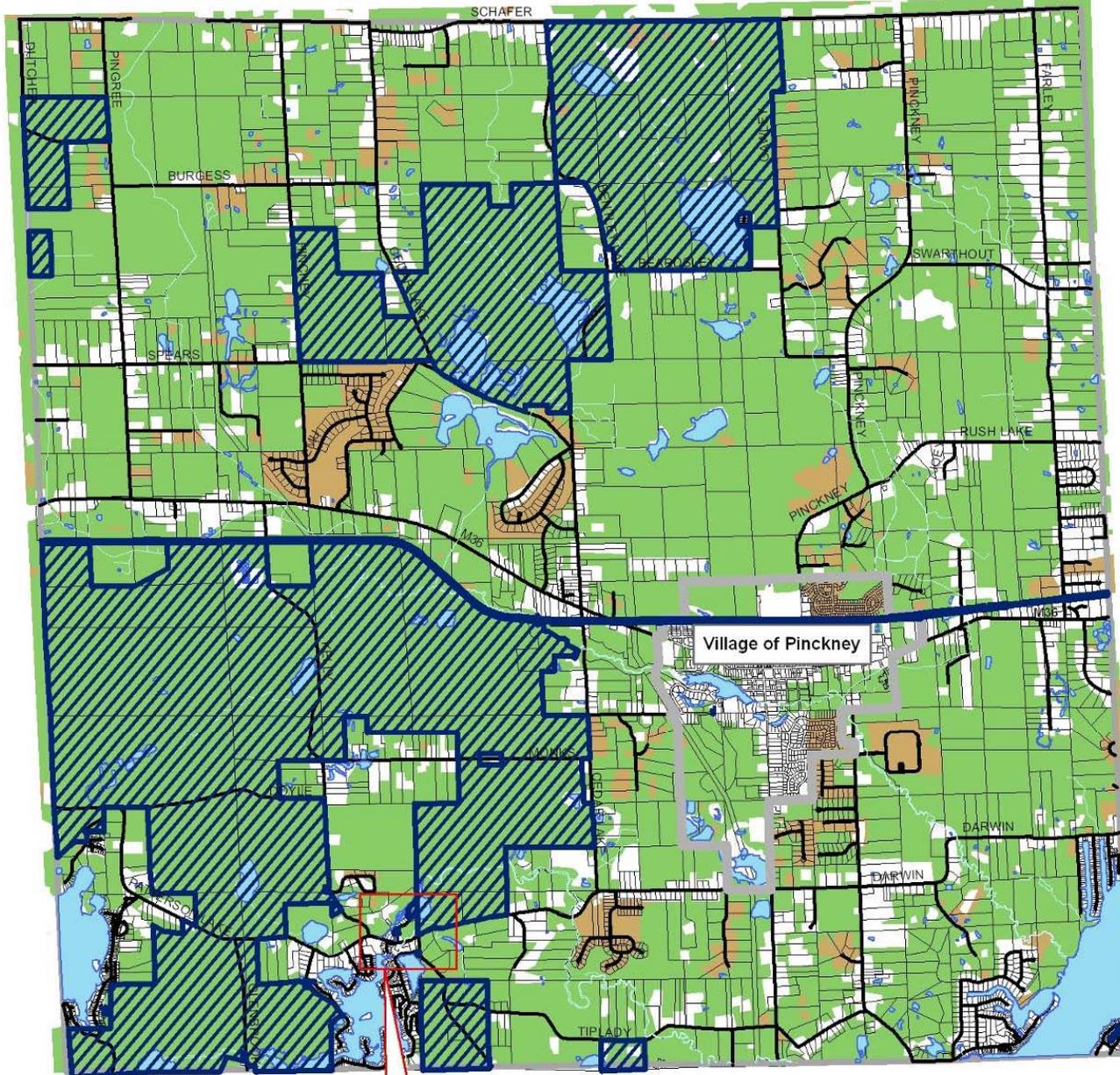
Land Use Change From 1990 to 2000, Putnam Township saw 700 acres of undeveloped land converted to residential use, which represents a 26% increase from 1990 (see Map 4). Again, the majority of this land was developed as single family detached residential at relatively suburban densities. During that same period, the township also saw a significant increase in park and recreation land with the addition of almost 300 acres. Contrary to prevailing trends in the County as well as Hamburg Township, Putnam saw a 4.3% increase in active agriculture land use. This is likely due in part to an increased in the number and size of horse farms.

Projected Change

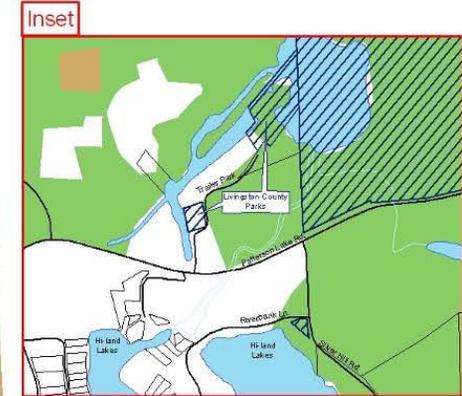
Potential Growth Scenario Based on demographic information, projections can be used to paint many possible futures. Without knowing what lies in store, the most accurate scenario that can be devised asks: If trends remain as they are, what does the future hold for Putnam Township, and how does that future compare to the Vision?

According to SEMCOG projections, by 2030 there will be 3,480 households in Putnam Township, of which the vast majority will reside in single-family detached homes. According to 2000 census data, 92% of housing stock in the township was single family detached. If the 2000 Census data is applied to future households, it is possible to determine the approximate number of households residing in single-family

MAP 4 Putnam Township Agriculture & Woodlands 1990 & 2000 Livingston County



-  Areas which were Agriculture/Woodland in 2000.
-  Areas which were Agriculture/Woodland in 1990 but not in 2000.
-  Institutional Uses
-  Lakes



See Inset




LSL Planning, Inc.

1,800 900 0 1,800 3,600 5,400 7,200
Feet

Sources:
SEMCOG (2000)
Michigan Center for Geographic Information (2004)
Livingston County IT Department, GIS Management Division (2004)

homes (3,202.) This growth scenario also assumes that the average lot size remains at 1.75 acres (the 1990 to 2000 residential density increment).

Assuming the rate of growth remains constant and applying the same percentages, the increase of 1,459 households from those existing in the year 2000 would result in 2,553 acres of currently undeveloped land being converted to residential use. That currently undeveloped land, 77.7% of all township land in 2000, is categorized as active agriculture, grassland and shrub, and woodland and wetland.

If this projection is realized and in fact, an additional 2,553 acres is developed by 2030, undeveloped land would drop to 66%. Since so much of the township is public and institutional land, this number is even more significant. How and where land is developed is critical to the future because it will affect the character and visual appearance of Putnam Township.

Should the anticipated growth in 1.75 acre residential lots follow the previously discussed historic development patterns and occur along existing streets and roads, change would indeed be dramatic. Assuming that a typical 1.75-acre lot is 200 feet wide, this projected household growth could add 55 miles of roadside residential development.

Not all growth would or could occur in this manner given that there may not even be 55 miles of developable land along existing streets and roads. However, even if a fraction of new development occurs in this way, it would damage the visual and rural character of the township—the very things determined to be so important.

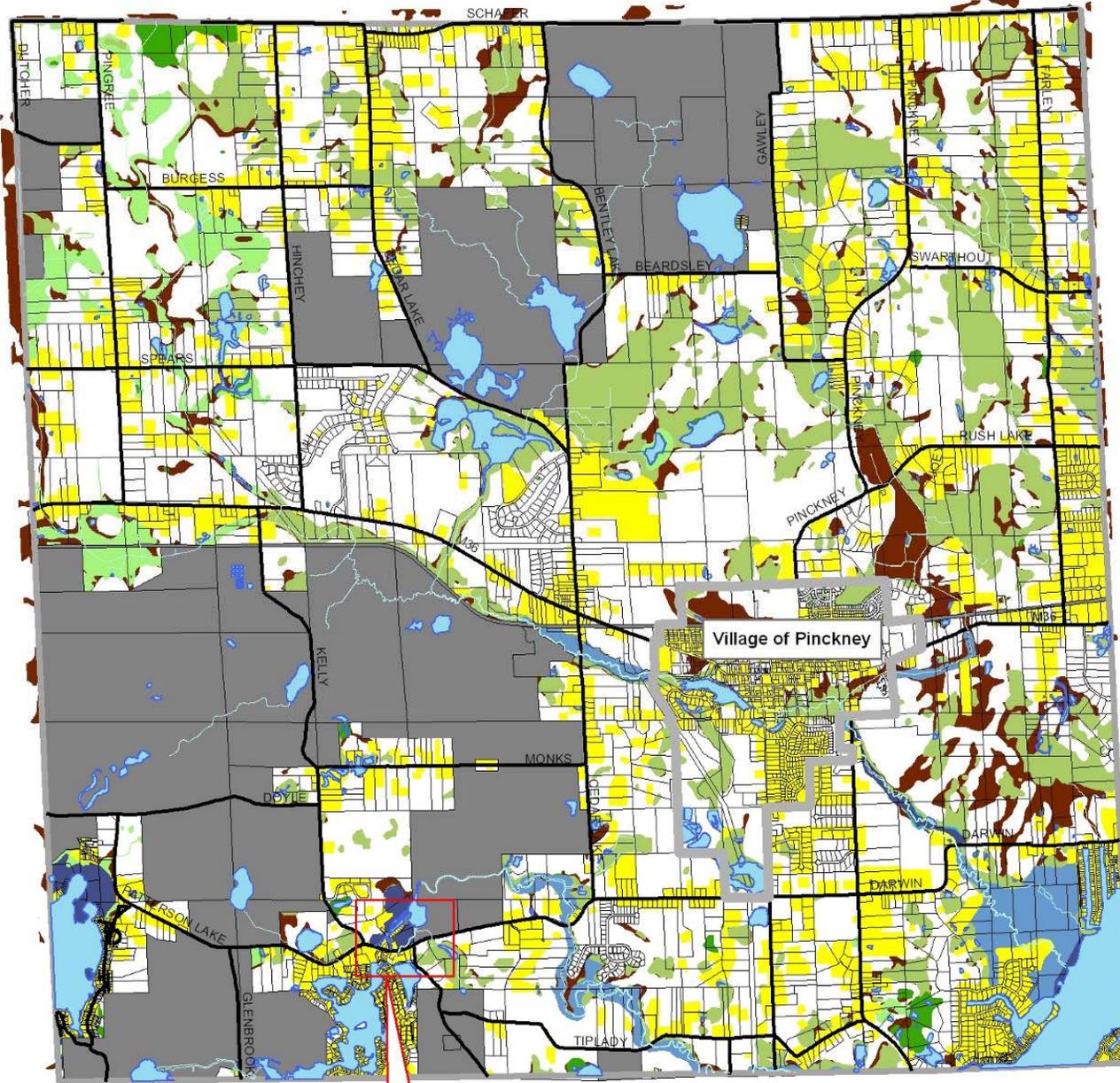
As township growth continues and vacant land is converted to homes and businesses, the availability of easily developable sites will decline, leaving more environmentally sensitive land subject to development pressure. With a township characterized by wetlands, flood plains, and pockets of steeply sloping land, how future growth and development responds to these factors will seriously affect the rural atmosphere envisioned by the community (see *Map 5*).

VISION - INFRASTRUCTURE

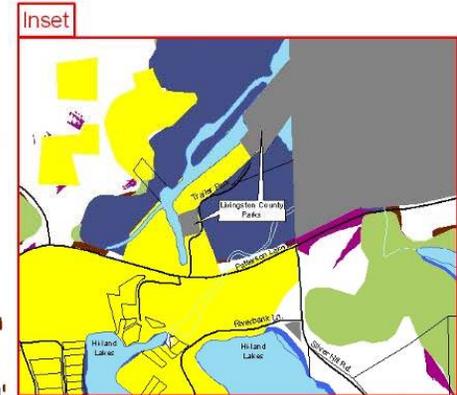
Putnam Township is one of many communities in Livingston County and across the country attempting to balance population growth with the preservation of existing rural and natural character. Along with the growth experienced by the township comes the need for improved or expanded



MAP 5 Putnam Township Non-Developable Area Livingston County



- Wetlands / Water Bodies**
- Intermittently Exposed or Semipermanently Flooded
 - Seasonally or Temporarily Flooded
 - Saturated
 - Lakes/Rivers & Permanently Flooded
- Steep Slopes**
- 20% or Greater
- Development**
- Residential (2000)
 - Institutional Uses
- Flood Zone**
- A
 - AE
 - X500
- Soils**
- Hydric



LSL Planning, Inc.

1,600 800 0 1,600 3,200 4,800 6,400 Feet

Sources:
SEMCOG (2000)
Michigan Center for Geographic Information (2004)
Livingston County IT Department, GIS Management Division (2004)

infrastructure and public services. Increasing demands for water and/or sanitary sewer can contradict the goals and values of rural communities. Over time, improved services and infrastructure can attract more growth, which can compete with the township's desire to retain its rural character.

It is for these reasons that existing and potential infrastructure must be reviewed in conjunction with the preparation of the Master Plan. The Plan works toward achieving the balance between competing interests by guiding growth towards areas with existing services or where extensions are logical and feasible, and through their design can reinforce the township's sense of character.

Vision for the Future Putnam Township's vision for infrastructure includes roads and trails, infrastructure and community services. This vision declares that Putnam Township will be characterized by:

- *A transportation system that includes a comprehensive network of effective roadways and connecting trails.*
- *Responsive community services and infrastructure that include public safety.*

How Have We Done? To date, Putnam Township has not experienced significant transportation-related problems, due in part to its existing rural nature and character. Many of the localized problems occur within or in close proximity to the Village. Although SEMCOG data suggests that congestion is currently not a major issue on township roads, nor is it projected to seriously affect traffic flow, this does not discount perceptions by some that traffic volumes have increased to a point where rural character has been negatively affected.

Much of this perception depends on the individual. To some, any delay at a stop sign; dealing with opposing traffic on a narrow, gravel, country lane; or simply waiting to leave their driveway, can appear to be a traffic problem.

Tied to this perception is the physical design of township roads. Clearly, certain roadway designs convey more of a rural atmosphere than others. Each of these factors can affect the character of the street.

- *Paving materials* (gravel or chip seal surfaces are more in keeping with a rural environment);
- *Road widths* (the narrower the travel lane, the more closely the road fits with a rural environment);
- *Edge treatment* (open swales or drainage ditches more closely match a rural environment, more so than curb and gutter);
- *Setbacks* (the greater the setback, the greater the ability to save existing trees and vegetation, which can buffer road side land uses); and
- *Street canopy* (street trees create a canopy that helps reinforce rural character).

To answer, "How have we done?" we need to know if rural character has been preserved. Development patterns have followed existing streets and roads, and have occurred generally at very low densities, so it is fair to say that much of what has happened supports a rural atmosphere. Many township homes are, in fact, well separated from road edges; most roads are gravel or chip seal; roadside trees, vegetation and topography remain (for the most part) intact; and some

new developments have embraced rural character by using narrow, gravel roads.

Unfortunately, some recent development projects, while well designed, have reverted to traditional suburban design standards. These include: excessively wide streets that unnecessarily remove trees and vegetation; asphalt paving; curbs and gutters; and the lack of any transition to rural streetscapes. Particularly jarring is how these suburban streets clash with those that are clearly rural in character. Design details such as curbs and gutters meeting gravel roads are constructed without sufficient thought as to how the two could, or should, be merged.

This points out the need for Putnam Township to develop and implement the tools needed to encourage infrastructure designs that preserve and protect rural character.

The Township's vision also expressed a desire for an effective network of township roads. To date, road connections have been unnecessary since residential patterns have followed existing streets. But continued reliance on existing streets results in isolating homes and neighborhoods, limiting access for emergency vehicles, increasing reliance on a few main roads, and further strengthening dependence on the automobile.

This isolation can also result in congestion and traffic delays as drivers are forced through fewer intersections. The problem is compounded as development increases. Over time, this could severely affect township streets.

In the future, the ability to create a network will be affected by development patterns, changing ownership of land, and natural features. Another problem is the growing use of private, rather than public, streets to serve individual

developments. It is unlikely that homeowner associations controlling the private streets will permit additional public or private street connections that would have the potential to route additional traffic through their neighborhoods.

In addition, some communities have been experiencing greater conflicts among owners of private streets as maintenance issues begin to affect older street surfaces.

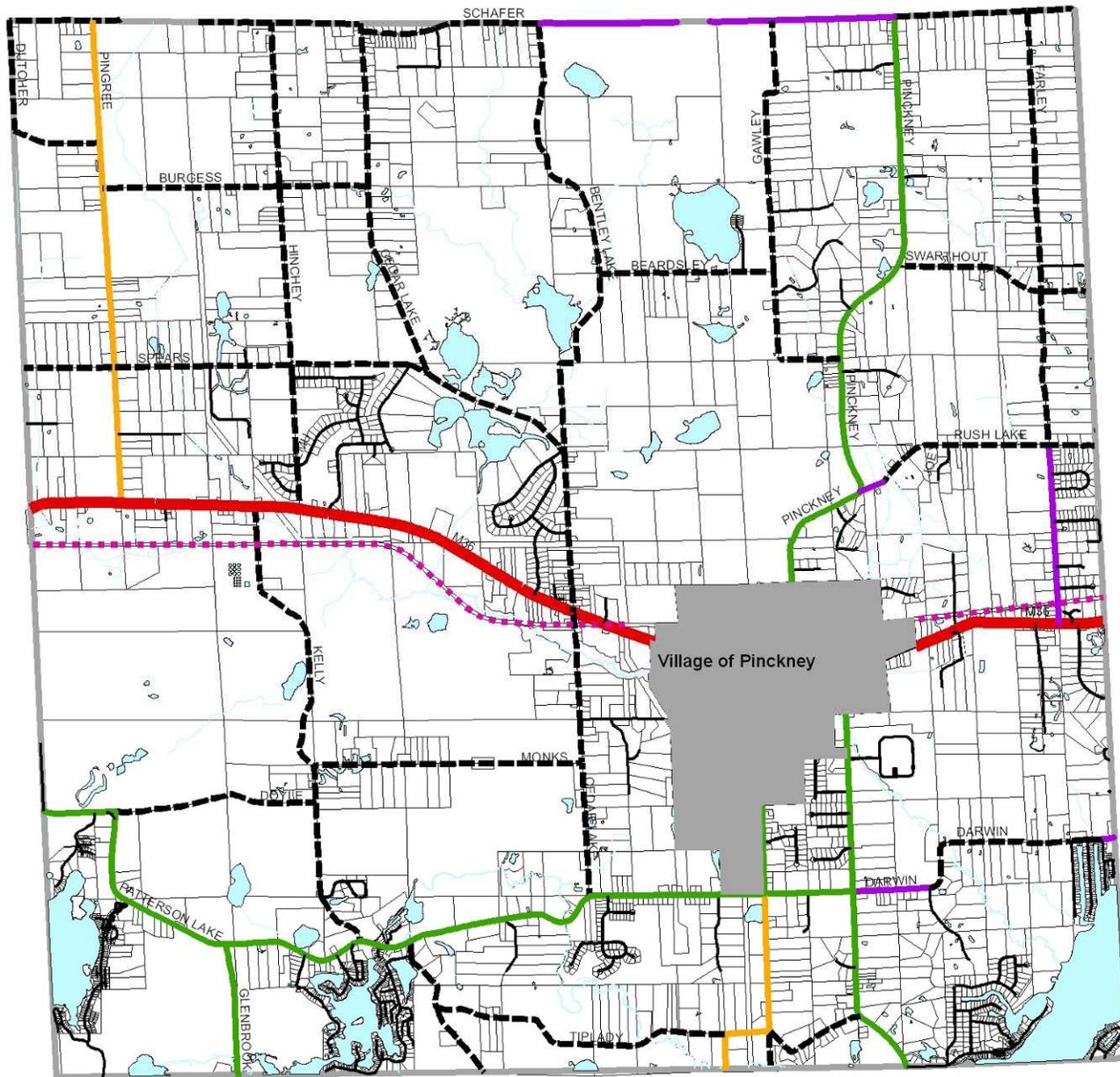
Existing Conditions

Roads The Livingston County Road Commission maintains the roadway system in Putnam Township, excluding private roads, with 20 miles of paved roads (asphalt) and 48 miles of unpaved roads (gravel or earth) (see *Map 6*). Pinckney Road (D-19) and Dexter-Pinckney Road (D-32) provide north/south access to and from the Village of Pinckney, while D-19 connects to I-96, north of the township. M-36 is the main east/west route, which links to US-23 to the east.

The Livingston County Road Commission and the Michigan Department of Transportation (MDOT) identify M-36, Dexter-Pinckney Road, Pinckney Road and Patterson Lake Road as the roadways with the highest daily traffic volumes.

Road Planning Roadway surface and condition, right-of-way widths, and private roads are common concerns in the balance between growth and preservation of natural character. Most township roads and streets are gravel with natural buffers along rights-of-way; some paved roads provide a similar buffer, which helps provide a rural feel.

Primary development areas and uses, such as commercial and higher density residential, must have access to existing hard surface roadways, especially those mentioned above, to



MAP 6
Putnam Township
Road Classifications
 Livingston County

-  Subdivision Streets
-  Local Gravel
-  Local Hard Top
-  Primary Gravel
-  Primary Hard Top
-  State Routes
-  Lakelands Trail State Park



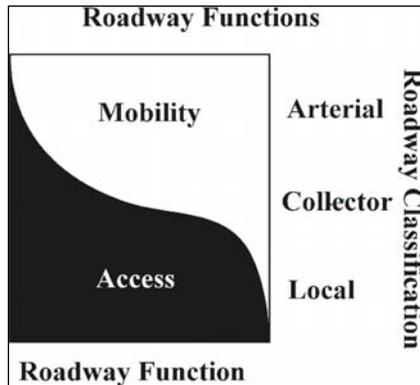
LSL Planning, Inc.



1,700 850 0 1,700 3,400 5,100 6,800
 Feet

Sources:
 Michigan Center for Geographic Information (2004)
 Livingston County IT Department, GIS Management Division (2004)

balance the natural/rural character and an efficient, connected vehicular transportation system.



Function, efficiency and safety of roadway movement in Putnam Township can be improved by classifying roads and planning and designing them for their specific purpose. The National Functional Classification system is a hierarchy of roads that considers the movement of traffic as well

as access to specific sites. The hierarchy ranges from major arterials, which primarily act to move traffic to and from areas outside the township, to local subdivision streets, which provide access to individual homes (see chart). The classification defines the role of each street, which in turn, translates into planning, management and physical design features.

The township's roadway system consists of three different road classifications that are described briefly below.

- **Arterials:** Arterials provide access to important traffic generators and to areas outside of the township. The primary function of these roads is to move large volumes of traffic; therefore, access to these roads must be properly managed in order to maintain safe and effective movement. M-36 and D-19 are considered arterials.
- **Collectors:** Collectors serve to gather traffic from local roads and subdivision streets and deliver it to arterial roads. Collectors also serve to provide access to abutting

properties. Collectors within the township include D-32, Patterson Lake Road, Pingree Road, South Mill Street/Toma Road and Glenbrook Drive.

- **Local Streets:** Local streets primarily serve to provide access to individual properties and homes. These roadways are generally short, and provide connections to collector streets. Examples of local streets include Kelly Road and Mower Road.

Alternative Methods of Transportation Currently, dial-up bus service is available throughout Livingston County through Livingston Essential Transportation Services (LETS), which primarily runs between Howell and Brighton. Given projected changes in population, especially a dramatic increase in the number of older residents, public transportation will become even more important.

Coupled with demand will be the ability to provide service in an efficient and cost effective manner. This has implications for land use patterns and densities necessary to support public transportation. Moreover, these transportation systems do not exist in a vacuum; therefore, cooperation and joint planning with area communities, especially the Village of Pinckney, will be critical.

Non-motorized Transportation

Another important aspect of an efficient, interconnected transportation system is the availability of non-motorized trails and/or pathways. Given vast open spaces and natural areas, the Township is in position to plan and develop an interconnected non-



motorized pathway system. Non-motorized pathways add to the overall quality of life for residents and provide a variety of benefits including:

- Providing multiple modes of access throughout the community to key destinations, including neighborhoods, commercial areas, civic areas, parks and open space.
- Providing a source of recreation for residents to bike, skate, jog, walk, and ride horseback.
- Increased social interaction between residents, leading to an improved sense of community.

Connections should be considered where parks or natural areas could be linked together and along major roads, such as D-19. When a specific pathway is being designed, the following planning considerations must be recognized:

- Availability of right-of-way.
- A design that minimizes impacts on the land and nearby landowners.
- A design that minimizes tree removal and drainage impacts.
- Minimizing impacts on wildlife habitat and wetlands.
- An alignment that is visually pleasing and provides a variety of views and experiences and takes advantage of the natural terrain and vegetation.

Currently, the only defined non-motorized system is the Lakelands Trail State Park multi-use pathway, which runs east-west across the township. This trail, part of the *Rails-to-*

Trails system, permits travel from Pinckney to Stockbridge along a converted railroad track. The trail is designed and used for hiking, bicycling, cross country-skiing and horseback riding. With its vast open space and natural areas, the Township has the ability to provide additional routes and the creation of a wider interconnected non-motorized system.

There are a number of user groups for the pathway system, including pedestrians, bicyclists, recreational/health walkers and joggers, rollerbladers, horseback riders and persons with disabilities. It is also important to remember that different users have differing pathway design requirements, which must be considered.

This trail system can be an integral element of the equestrian-supported activities encouraged by the Township. Separation of vehicular and equestrian traffic to the greatest extent possible is critical to ensure the safety of both motorists and equestrians. This objective can be met by the provision of safe and controlled equestrian crossings where equestrian trails intersected major roads. Signs should be installed to warn drivers of their responsibilities within this area. The Township, working with the Village and adjacent communities, should plan to acquire equestrian trail easements where necessary and to establish regulations for the use of equestrian trails.

A Balancing Act

Although planned as a transportation system, roadways often perform a variety of functions. Interstate highways provide quick, relatively safe, high-speed movement between communities and states. But a residential street can do much more, from acting as a transportation route, to serving as a gathering point for neighborhood parties. Virtually every road outside of the interstate network must serve this variety of functions.

The Community Survey, conducted for the Putnam Township Master Plan, identified “traffic management” as a Moderate or High Priority issue by 77% of survey respondents. To address this important issue properly, it is necessary to maintain a balance between the transportation needs of the street and other, non-transportation needs. This requires a cooperative effort by all parties involved, from MDOT to Putnam Township, as well as adjacent communities.

Roadway Improvements SEMCOG’s 2025 Regional Transportation Plan does not identify any major roadway improvement projects within the township, although there are numerous projects planned throughout Livingston County, including along US-23 and M-59. Any future roadway needs must take place as a coordinated effort between the Township, the Livingston County Road Commission and other entities with jurisdiction, such as MDOT. Ideally, road improvements should anticipate and precede growth, not after development.

Access Management Typically, the approach to address increasing traffic volumes is to widen a road from two lanes to three, or even five. However, road widening can seriously disrupt rural character. Instead of costly and disruptive construction projects, a strong access management program can be used to maintain safety and smooth traffic flow and minimize the need to make these improvements. Access management involves the regulation of individual driveways and private road approaches through the following:

- Limiting the number of access points;
- Encouraging alternative and inter-connected driveway access for non-residential projects;
- Providing safe sight distances; and
- Requiring appropriate driveway separation from other drives and intersections as well as their proper alignment.

Appendix 1 contains a detailed discussion of Access Management techniques.

Context Sensitive Road Design Context Sensitive Design (CSD) is an approach that directly involves the community in the design of roadways and correspondingly, roads are designed to respond to their physical setting and planned use. The intent of CSD is to preserve scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility. In Putnam Township’s case, consideration should be given to the rural or natural context within which a future transportation improvement will exist. While the roadway must be designed to meet safety standards, the following also should be taken into consideration with future roadway improvements:

- Preservation of existing trees and vegetation along the road edge.
- Minimizing the impact of road drainage on surface water.
- Minimizing grading to respond to and preserve topography.
- Providing graceful and natural curves in roadways to preserve natural features and scenic views, while also providing aspects of traffic calming.

The Township should also work with the Livingston County Road Commission to develop context sensitive road design and maintenance standards. These would provide standards for road design, grading, storm drainage maintenance and the trimming or removal of roadside vegetation.



Natural Beauty Roads The Natural Beauty Road Act (Part 357, Natural Beauty Roads, of the Natural Resources and Environmental Protection Act, P.A. 451 of 1994, as amended) empowers the county road commission to dedicate county roads as Michigan Natural Beauty Roads. The goal of the Natural Beauty Roads program is to identify and preserve in a natural, essentially undisturbed condition, certain county roads having unusual or outstanding natural beauty by virtue of native vegetation or other natural features within or associated with the right-of-way, for the use and enjoyment of local residents and the public in general. According to State of Michigan Department of Natural Resources records, Livingston County did not have any roads designated as of January 2001.

- Based upon the guidelines prepared by the Department of Natural Resources, the objectives of the Natural Beauty Roads program are:
- To officially recognize and designate roads in the county system which meet the natural beauty criteria.
- To keep these roadsides as they presently exist insofar as possible.

- To maintain and administer these roads so that they will continue to meet the criteria and at the same time provide safe public travel.
- To mark such roads for the information of the public.

Criteria for designation include:

- Character of Road – road must have outstanding natural features and/or scenic or natural vistas.
- Length – normally a minimum of one-half mile will be considered.
- Roadside Development – preferably no development or development that is compatible with the surroundings and does not detract from the natural unspoiled character.
- Road Bed – natural beauty roads may be dirt, gravel, or hard surface.
- Function of the Road – roads must be county roads, city streets, or village streets. Collectors or primary roadways are not eligible.

To initiate the process of designating a Natural Beauty Road, at least twenty-five residents must sign a petition to designate a county or local road. Within six months after the petition is received, the Road Commission holds a public hearing to consider the described road or street as a natural beauty road. Within 30 days following the public hearing, the County announces its decision as to whether the road will be designated. The Township should work with the County on designating roadways with pristine natural features as natural beauty roads.

Utility Services

Water Service Properties in the township are exclusively served by private well systems except for Pinckney High School, which is served by the Village water system. There

are no plans to extend public water lines into the township and currently, there do not appear to be any significant well water contamination issues.

Sanitary Sewer Service Similar to water service, the township is served almost entirely by private septic systems, with only a few locations having access to sewer service. The Village system serves the High School and three residential areas have service from two sewer authorities. The Portage Base Lake Sewer Authority services the area around Portage Lake, while the Multi Lakes Sewer Authority services the Saddlebrook subdivision and residences around Patterson Lake.

Stormwater The majority of the township utilizes natural drainage patterns via open ditches and streams. There are, however, some areas with tiled lines and several private drains. The Livingston County Drain Commission is responsible for several drains including Honey Creek, Portage Creek, Anderson and County Drains Number 7, 11, 12 and 13. More recent developments have storm drains within public rights-of-way and on-site detention.

Reduction of Impervious Surfaces Development activities and population growth can also lead to an increase in the amount of impervious surface, which in turn can have a significant impact upon the capacity and quality of stormwater runoff. This is especially true given the abundant natural features located throughout the township. Minimizing impervious surfaces can reduce potential problems with stormwater. The following is a list of tools that can be used to reduce impervious surfaces:

- Reduce minimum required pavement widths;
- Reduce the length of residential streets;

- Revise parking standards to the minimum necessary and establish both minimum and maximum standards;
- Use alternative driveway surfaces (pervious pavement) and/or shared driveways;
- Maintain a natural stream buffer system;
- Limit the amount of land clearing and grading; and
- Promote the preservation of woodlands and wetlands.

VISION - NATURAL ENVIRONMENT

Rural communities facing pressure for development are challenged to accommodate new residents while maintaining those qualities that attracted those residents in the first place. Development that is not sensitive to natural features will alter large expanses of land, resulting in decreasing natural open spaces and wildlife habitats, and eliminating those traits that make the community a desirable place.

Natural features both enhance and protect the quality of life in Putnam Township. These features include clean water supplies, wildlife habitats, natural areas to accommodate stormwater and provide flood control, and environmentally sensitive land such as wetlands, steep slopes, and woodlots. Together, these features help set Putnam Township's tone as a rural community in a natural setting.

Many times, natural features serve to channel development due to soil conditions, water features and topography. In the past, many communities relied heavily on these conditions to limit or direct growth to certain areas considered more acceptable. Changes in technology and construction standards, however, have permitted development to encroach upon areas once considered unbuildable.

Other influences are man-made; highways, roads and utilities that form networks that are relatively independent from natural

systems. These networks ultimately have a profound impact on natural resources.

Vision for the Future Putnam Township has a vision for preserving pristine high quality natural areas, recreational opportunities and trails, waterways, wetlands and woodlands.

Existing Conditions

How have we done? So far Putnam Township’s rural character has not been dramatically affected by development and its natural resources have, for the most part, been protected. These resources, such as wetlands, water features, woodlots and rolling terrain have guided where the majority of residential development can occur. As a result, natural systems have not been seriously affected.

However, that may be changing. According to the SEMCOG Land Use/Land Cover Classification System for 1990 and 2000, 11.5% of wetland areas and hardwood forests were lost within this ten-year time period. That equates to roughly 1,116 acres that no longer serve groundwater recharge and water purification functions, or provide wildlife habitat and natural scenic view sheds.

Historically, residential development in the township has occurred along existing roads. The continuation of this pattern will, however, ultimately lead to the loss of tree lined, canopied streets and country lanes. Obvious consequences will be the loss of rural character and pressure to split and fragment large parcels into smaller residential lots.

The splitting of large parcels will make it more difficult for the Township to protect environmentally sensitive land and to acquire parkland for logical and desirable open space extensions. This may ultimately limit recreational

opportunities, another important aspect of the Township’s vision. Activities such as hiking, bird watching, snow shoeing and cross country skiing rely on linear and inter-connected open space areas which can be difficult to assemble, especially when multiple property owners are involved.

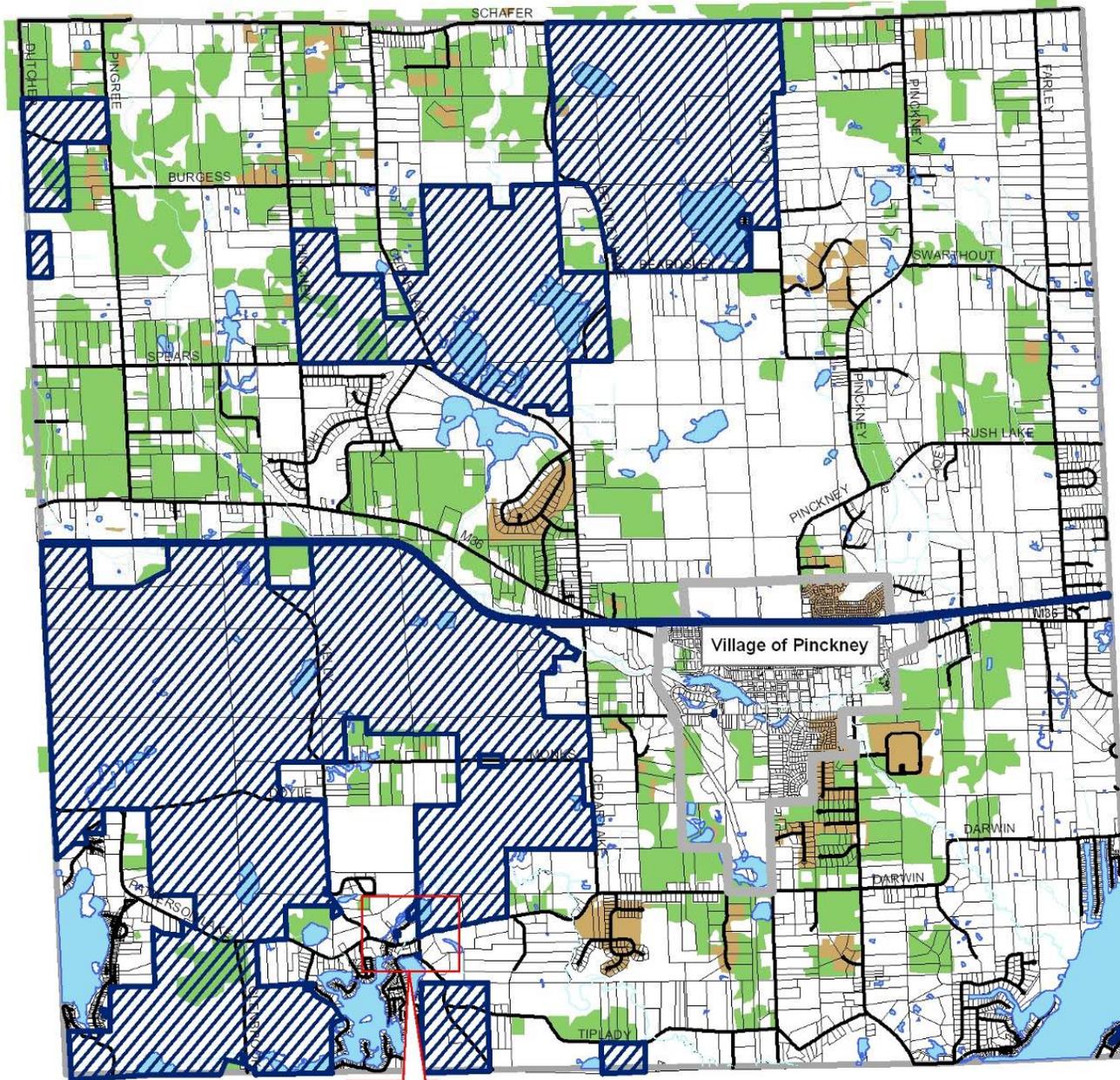
A review of soil information indicates that residential development along roadways has occurred in areas that are suitable for development. Unfortunately, many of the very parcels that are most suited for development are often in agricultural use. Since much of the area is characterized by land that is constrained by environmental features and/or is under public or institutional ownership, available and unconstrained building sites are somewhat limited. Therefore, the need to balance the requirements for viable agricultural production and new residential development will continue to pose planning challenges.

Agricultural land can provide substantial environmental benefits to a community, including floodplain protection, groundwater recharge areas and wildlife habitats. Agricultural

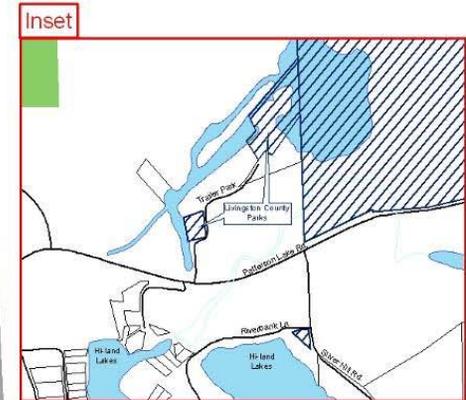
ACTIVE AGRICULTURAL LAND CHANGE FROM 1990 TO 2000					
Figure 4					
Township	1990 Acres	Percent of Total	2000 Acres	Percent of Total	Percent Change
Putnam	3,674	17%	3832	18%	+1%
Unadilla	9,285	42%	9380	42%	0%
Marion	9,312	40%	7864	34%	-6%
Genoa	4,799	21%	3473	15%	-6%
Iosco	12,480	55%	11705	52%	-3%
Dexter	6,555	31%	5,640	27%	-4%
Hamburg	1,636	7%	1,040	5%	-2%
Webster	12,063	53%	10,494	46%	-7%
Totals	63,488	—	56,964	—	-29%

Source: SEMCOG

MAP 7 Putnam Township Agricultural Lands 1990 & 2000 Livingston County



-  Areas which were Agricultural in 2000.
-  Areas which were Agricultural in 1990 but not in 2000.
-  Institutional Uses
-  Lakes



Sources:
SEMCOG (1990/2000)
Michigan Center for Geographic Information (2004)
Livingston County IT Department, GIS Management Division (2004)

See Inset

lands can also complement community character with large expanses of open space, scenic vistas and a rural atmosphere. Despite growth and development pressures (see Figure 4), there are currently 3,800 acres of agricultural land within Putnam Township (see Map 7). The fact that this has been maintained over the past ten years is positive. Compared to neighboring communities, Putnam Township has not experienced the same trend of farmland conversion and loss of agricultural land. This suggests that the Township favors its rural setting and the continuation of agricultural activities.

Open Space

Urban development and its affects on farm operations can be a troublesome issue. Development can make daily farming operations difficult and sometimes dangerous. In order to sustain agricultural practices, including those related to equestrian activities, the Township should seek to minimize urban and rural conflicts. Directing development into areas planned for greater densities or where utilities are available, and discouraging the expansion of low-density development into rural agricultural zones, can help to limit those conflicts and assist in protecting farmland.

A review of the township's more recent, rural residential development indicates that many consist of homes on relatively large lots, in the range of five or ten acres. New challenges to manage natural areas emerge with this form of development. Expansive lawns that require regular watering and fertilizer can have long-term impacts on groundwater and nearby lakes and streams. Provisions for greenbelts, native landscaping with reduced water and fertilizer requirements and woodland preservation for new building sites help protect rural character, while at the same time preventing environmental degradation.

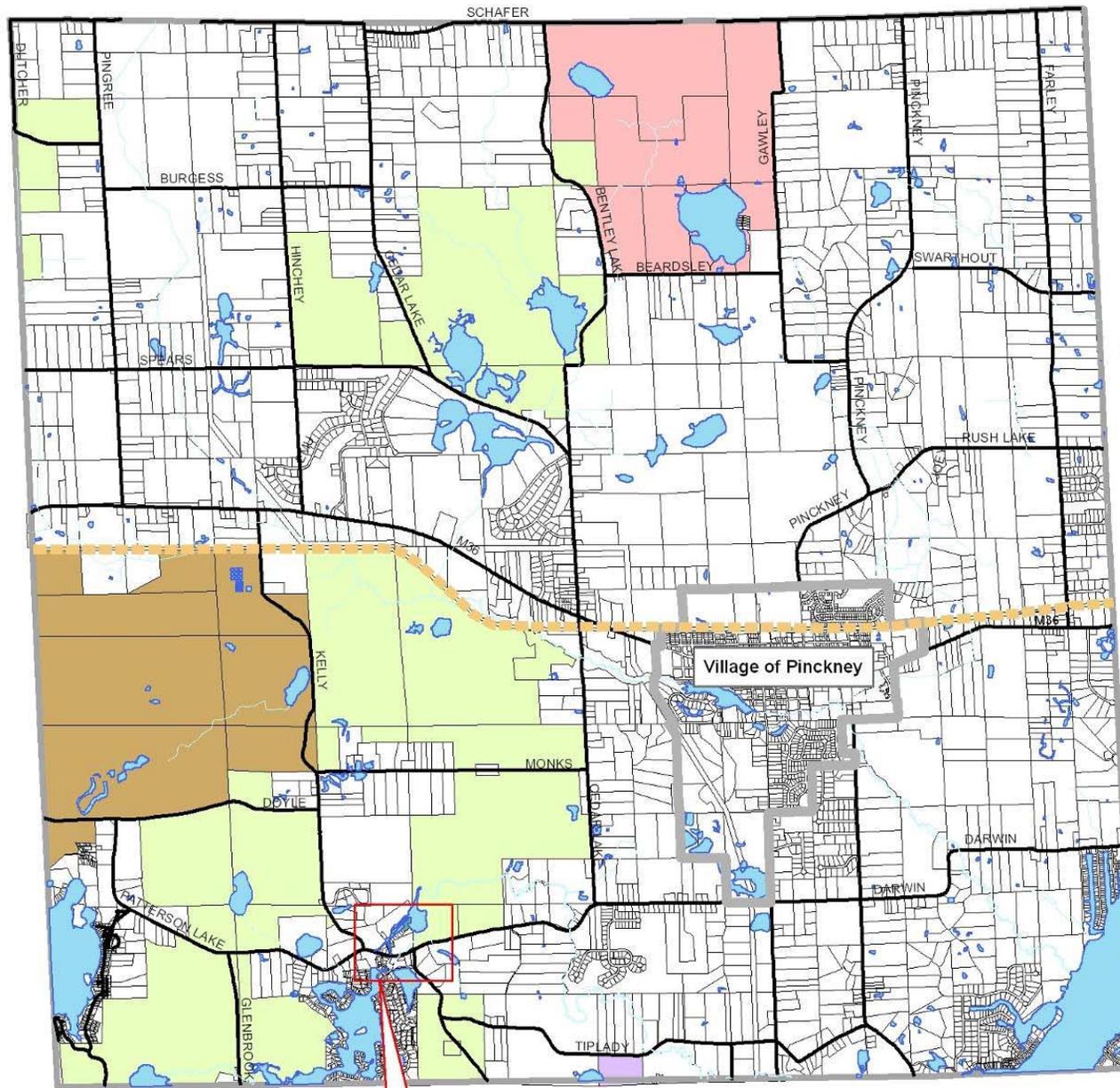


Building setbacks that locate homes behind or within woodlots or natural landforms, or away from the visual right-of-way of rural roads can be used to enhance rural viewsheds while at the same time accommodating new development.

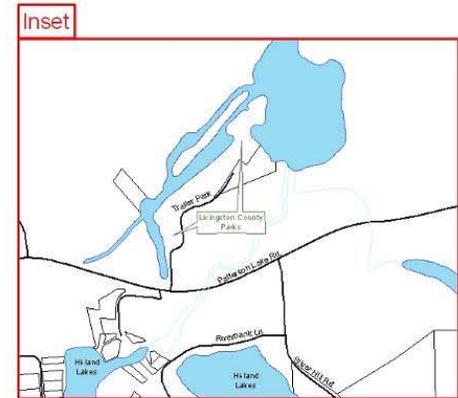
Natural Corridors One way to help protect these resources is to link natural areas into viable inter-connected corridors. These corridors provide important water quality functions, and park, recreation area, trail and wildlife habitat connections. They are important to identify and protect, long before development and growth pressures have fragmented them. They are also necessary for the long-term sustainability of the natural resource base, a key element of the Township's vision for the future. Just like cutting off oxygen to a growing organism, cutting off trails or large tracts of parkland can have the same effect; their ability to maintain natural functions degrades and they are eventually converted to other uses.

Recreational Opportunities and Trails The Pinckney Recreation Area, located in Putnam Township, is a unique resource that attracted an estimated 680,000 visits in 1996 (the last available count). The Area has over 11,000 acres and accommodates hunting, wildlife observation, canoeing and other passive recreational uses (see Map 8).

MAP 8 Putnam Township Recreational Lands Livingston County



-  Boys Club Parcel (26.8 acres)
-  Livingston County Parks (2.6 acres)
-  University of Michigan Parcels (1,303 acres)
-  Girl Scout Parcels (992 acres)
-  DNR Parcels (3,557 acres)
-  Lakelands Trail



See Inset




LSL Planning, Inc.



Sources:
Michigan Center for Geographic Information (2004)
Livingston County IT Department, GIS Management Division (2004)

There are other state and institutional land holdings in the township that provide recreation opportunities and encourage residents and visitors to explore and enjoy the outdoors. Many of the large landholdings that lend themselves to passive recreation, such as hiking and skiing, are managed by Michigan's Department of Natural Resources. Other large holdings include the University of Michigan and the Girl Scout properties, that together encompass over 5,800 acres.

The Township should carefully consider the long-term viability of the properties owned by institutions and be aware that such entities continue to undergo structural changes due to economic and social transformations. At some point, changes in an organization's mission and rising real estate values may trigger an interest to sell all or part of their land holdings. If and/or when that happens, other uses will most likely be requested.

Therefore, it is imperative the Township consider appropriate long-term use of these properties, especially as it relates to preserving high quality natural and recreational areas. Possible planning techniques include: the purchase and creation of a significant Township park; preservation using private conservation easements; or their inclusion in an expanded state or county park system.

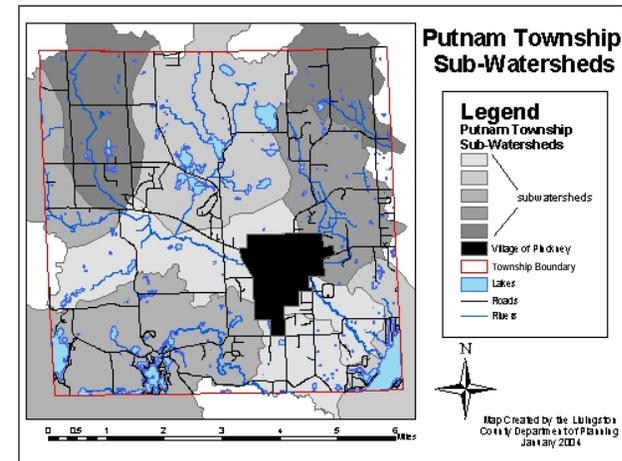
Planning for the preservation and protection of contiguous open spaces to prevent the fragmenting of natural habitat and game corridors will be a challenge for the Township, but one worth meeting.

Natural Features

Preservation of natural features has been identified as a priority in the Township. Development should account for natural features, and tools such as functional ecological

assessments should be used to mitigate or eliminate the effects of development on natural features.

Water Resources Water quality is an essential consideration for communities that utilize waterways for recreation, residential living and well water consumption. Township water quality should be maintained at a high level since this resource is so inter-connected.



Putnam Township is located within the Huron River Watershed and Honey Creek is its primary tributary. Approximately 4% of Putnam Township consists of waterways and lakes. Others, such as Portage and Patterson Lakes, are prime real estate and are intensely developed.

Intense residential development on inland lakes results in unique environmental challenges. Several lakes are surrounded by large private land holdings and water quality has not been significantly degraded by residential development, septic systems and fertilizer use.



Small lot residential development, with increased amounts of impervious surfaces such as roofs, parking lots and driveways,

can contribute to the transmission of pollutants. The initial flush of runoff during a rainfall washes off various contaminants, nutrients and sediment into nearby lakes and streams. This type of contamination acts to speed the natural aging process of a lake.

Along with stormwater runoff, pesticides and herbicides linked to green lawns and the clearing of natural vegetation for enhanced water views, can also contribute to degraded water quality. The negative impacts linked to storm water runoff and chemicals associated with lawn care can, however, be mitigated through the maintenance of lakeside natural areas, greenbelts, and vegetative strips.

Groundwater is the primary source for drinking water in the township and this reliance requires environmental stewardship. As with surface water, nitrates from fertilizers and septic systems can leach into groundwater supplies and affect overall quality. Providing wellhead protection and environmental stewardship is of great importance. Use of innovative techniques such as rain gardens and vegetative strips may also provide water quality benefits.

Wetlands Wetlands were once viewed as a stigma by local communities, because of soils that cannot support land development, standing water and insect populations. That

public perception has changed with the knowledge that wetlands filter contaminants from water supplies, provide natural flood control and serve as habitat for bird, fish and animal populations.

Approximately one-third of Putnam Township is wetlands, often located adjacent to lakes, streams and natural drainage courses. Wetlands benefit the entire community in that they provide flood control, filter pollutants, recharge groundwater supplies, and provide prime fish and wildlife habitat.

Even with these natural benefits, Putnam Township has still seen a dramatic decrease in both emergent wetlands and lowland hardwood wetlands. Emergent wetlands are usually dominated by grass-like plants, such as cattails and sedges, which are rooted in bottom sediments, but “emerge” above the surface of the water and are usually found along the waters edge. Over a ten-year period, 1990-2000, approximately 11.5% of existing wetlands/woodlands were lost to development. Wetlands that run the highest risk of conversion to residential and commercial use are those that are located outside of public land holdings, north of M-36.

Since wetlands are typically not attractive for residential development, due to poor soil conditions, their preservation is yet another method of providing additional protected open space for either private or public recreation use. Not only does this provide the benefits of added open space, but it also protects key wildlife habitats and water quality functions. These protected areas will only become more important as the township’s population increases and open lands are under pressure for residential development.

The State of Michigan safeguards wetland resources through Part 303 of the Natural Resource Environmental Protection Act; however, wetlands that are not contiguous to a water

body or do not exceed five acres fall short of this protection. Putnam Township could, however, implement land use incentives and permit “bonus densities” for those developments that preserve and protect wetlands. A separate wetland protection ordinance that provides some protection to wetlands not otherwise regulated by the state is also an option.

Woodlands Woodlands and tree-lined roadways are important features that can help set the tone for a rural community such as Putnam Township. Currently, woodlots occur in park settings, on publicly owned land or on private land holdings. They are, fragmented, however, due to previous harvesting, clearing and tilling for pastures and farmland.

Woodlands serve purposes ranging from animal habitat and soil erosion control, to natural buffers for noise and odor control. Woodlands that follow stream corridors are important to watershed health because of their ability to provide shade and keep water temperatures cool for healthy aquatic insect and fish populations.

While many existing woodlands are located within the public domain, remaining stands are located on private property. Typical land development methods, especially for those associated with small lot development, historically have utilized clear-cutting. Reviewing land use change data for Putnam Township between 1990 and 2000 indicates that forestland has declined by approximately 39%, primarily in the Pine and Central Hardwood/Oak systems. While this more recent information is not available in map form, it is available for the years 1978 to 1992 (see *Map 9*). This map demonstrates the trend toward loss of forest cover.

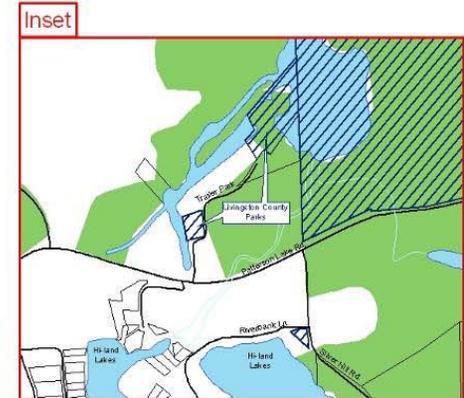
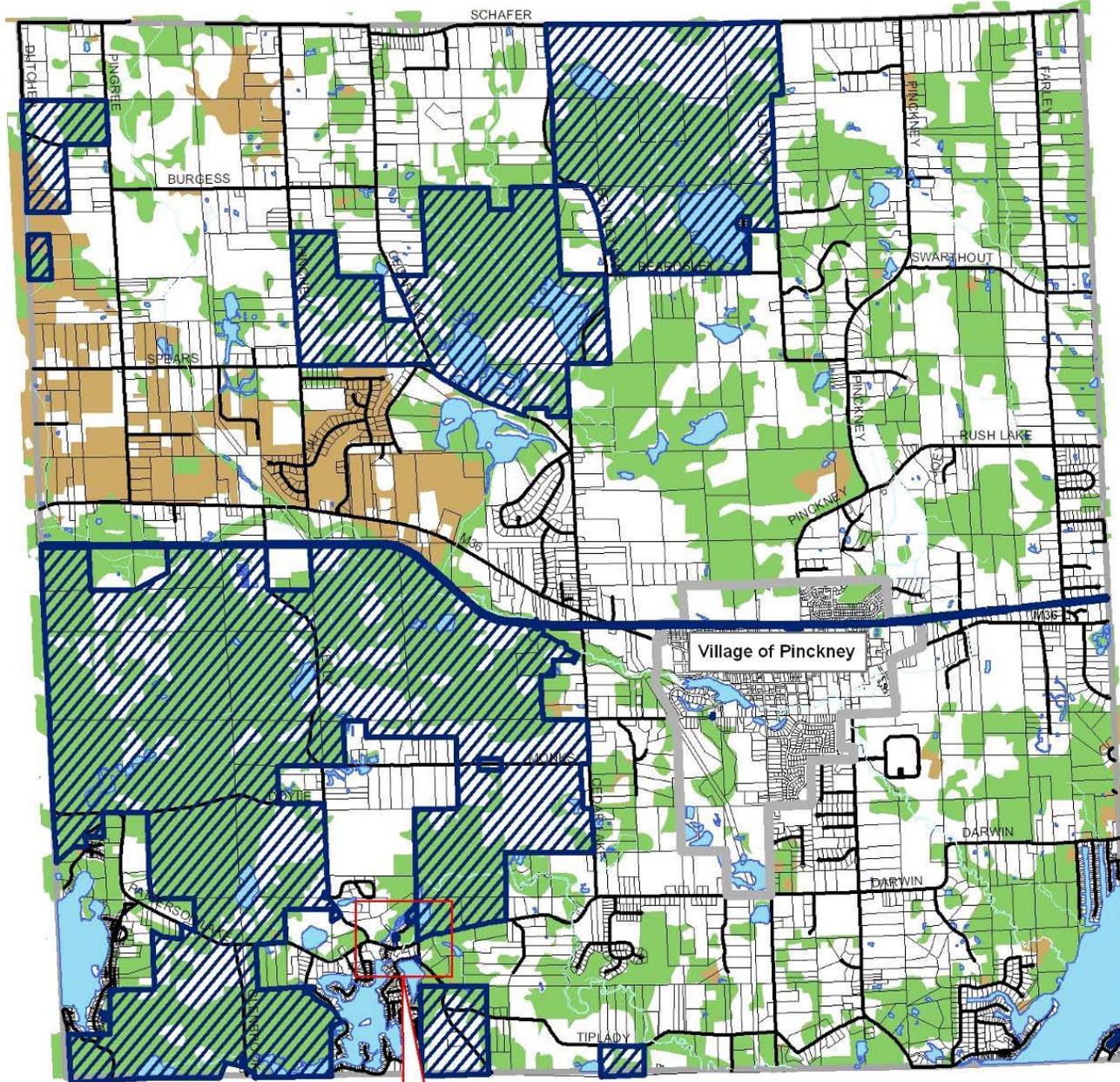
In order to effectively preserve high quality woodland areas within the township, their management should be addressed.

Woodland regulations can be used to prevent the loss of major tree stands and to protect rural character. Implementation of these regulations can ensure that development in forested areas preserves the health of the resource while protecting rural character. This can have positive effects on the environment, preserving trees and habitat, as well as creating natural stormwater retention areas.

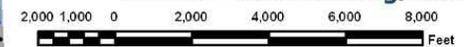
The health of forest systems on a regional basis is currently under threat from various pest infestations. This is because of the global economy, which has resulted in the introduction of non-native species to Michigan and the Great Lakes. Of immediate threat to Putnam Township is the Emerald Ash Borer that targets ash trees. This pest can have (and already has had in some communities) a dramatic affect on the rural character as trees become diseased and die. For new developments in Putnam Township, integrated planting of mixed tree species will help protect the community from becoming susceptible to massive blights, such as what previously happened to the American Chestnut and American Elm.

MAP 9 Putnam Township Woodlands 1990 & 2000 Livingston County

-  Areas which were Woodlands in 2000.
-  Areas which were Woodlands in 1990 but not in 2000.
-  Institutional Uses
-  Lakes



LSL Planning, Inc.



Sources:
SEMCOG (1990/2000)
Michigan Center for Geographic Information (2004)
Livingston County IT Department, GIS Management Division (2004)

*Putnam Township
Master Plan 2005*
FUTURE LAND USE

CHAPTER FOUR

The form and vitality of any community is largely defined by the way land is used and how that use relates to the daily life of its residents. In this way land use is directly linked to the quality of life of Putnam Township. A common sentiment expressed in community meetings during the development of the Master Plan was that many residents "moved here to get away from" urban problems present in other developed areas of the state. Similarly, long time residents demanded that the township not become a place like that from which new residents had escaped. Based on these views, it is clear that the rural character of Putnam Township is worth saving, but effective use of the right planning tools is needed to assure that the township continues to be a special place.

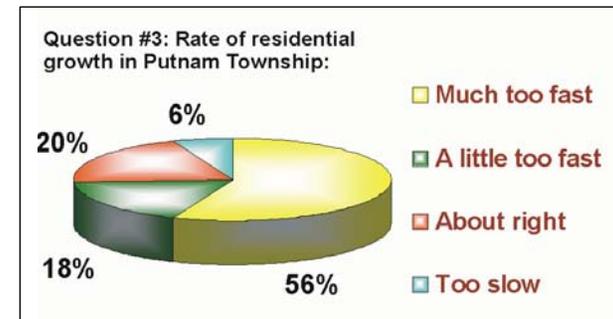
To maintain an acceptable quality of life, the Township must carefully plan for the best management of *all* of its resources. While the Township cannot solve every problem created by development, nor answer all concerns related to the development of land, it can ensure that its land use decisions take into account a broad range of community concerns.

As a guide, the Plan is not meant to be rigidly administered; changing conditions

may affect the assumptions used when it was originally conceived. But changing conditions do not necessarily mean that the Plan must change. Rather, the Planning Commission must examine those changes and decide if the principles on which the Plan was based are still valid. If so, the Plan should be followed.

Even though change is inevitable, the effects of change need not conflict with the desires of a community to maintain its character and quality of life. Much has changed in Putnam Township during the 20th Century. Comparing the Putnam of 1915 (*see graphic*) with today shows just how much change has occurred – yet the township still maintains a sense of being a rural community.

However, as more growth continues in the Livingston County area, as it most assuredly will, Putnam Township, along with its neighboring communities, will have to address difficult land use issues brought on by the pace and increasing complexity of development plans. As the 2003-2004 Community Survey discovered, area residents and landowners have deep concerns about the rate of land use change within the township. Over half of those responding to the survey felt that the rate of residential growth was "much too fast."



The need to accommodate these views, while desiring the management of growth, creates a demand for innovative zoning solutions and carefully considered land use decisions.

Plan Concept – Rural Character

The Plan’s underlying concept emphasizes the preservation of rural atmosphere, which most residents consider one of the township’s primary assets. The Plan concept focuses most on non-rural growth and the preservation of rural environments and natural features. Limited commercial development is envisioned in the township, but intense commercial growth is deemed to be inappropriate as the Village of Pinckney, Hamburg Township, the City of Howell and the City of Brighton already provide suitable and nearby commercial centers. Industrial development is not promoted because ample employment opportunities are available in surrounding communities and appropriate locations in the township are limited.

Although the preservation of rural character is a consistent theme in Putnam Township’s Master Plan, as it is for many of Michigan’s rural communities, increasing development pressure will make it more challenging to protect.

A specific purpose for preserving rural character and natural features is to recognize and protect the qualities of rural living deemed important and worth preserving by residents. Where land development approvals are requested, plan densities and design should embrace and support rural character by carefully siting homes and structures and by preserving natural features and open space areas. Open spaces help maintain expansive rural views and the sense of tranquility so prized by area residents. Careful open space planning can also help limit traffic impacts and environmental problems that are associated with development that is more intensive.

One of the Master Plan’s goals makes this objective clear:

Putnam Township will plan a land use pattern that represents a predominately rural residential and agricultural character, with quality single-family housing at densities appropriate to its low-density setting.



Preserving Rural Character

The concept of rural character may have different implications and may take on different forms depending on the types of land uses and natural features involved; therefore, its preservation requires using a variety of techniques. Rural character is as much perception as it is reality, and that perception is gained from two principal viewpoints. The first viewpoint, and the one that affects the most people on a day-to-day basis, is from the roadway. The second, and most personal, is the view that someone may have from their own property to their neighbor’s property.

Properly addressing these two perspectives involves the design of developments and the availability of appropriate regulatory tools needed to make good design happen. These factors will play pivotal roles in helping to preserve the township’s rural character.

Although existing zoning regulations may call for homes on larger lots with generous setbacks, little attention is typically paid to the careful placement of homes on lots with the express purpose of preserving rural character, views and natural features.

However, there are a number of practices that the community could encourage to promote the preservation of the rural environment from both viewpoints. Each of these practices has its advantages and disadvantages; the key is to select those that best fit both the township's existing development patterns and meet the Master Plan's goals.



Density is not the only factor....

While maintaining lower densities for residential development is

important, density alone is not the only factor to consider. Think about the adjacent picture. While this certainly is a large lot, low-density development, it can hardly be said to have any "rural character." Therefore, the key to maintaining rural character is to combine density considerations along with development design.

The following describes regulations that may be implemented to assist the Township in retaining its rural character.

FUTURE LAND USE

AP AGRICULTURAL PRESERVATION

Base Density: 10 acres and greater

Description

AP designated areas are characterized by large land parcels that accommodate agricultural uses, including farming and animal keeping, and in particular equestrian activities, both at larger scales and on smaller, individual sites. In addition, low-

density residential development is allowed that is compatible with agricultural and farming use.

Farm fields, orchards and pastures, some of which are separated by hedgerows, dominate roadside views. Homes, barns and stables are generally set well back from roads, or they may assume a traditional farm setting with structures having a lesser setback. Individual homes that are not associated with agricultural activities have gracious setbacks with intervening fields, or woodlots to help screen views.

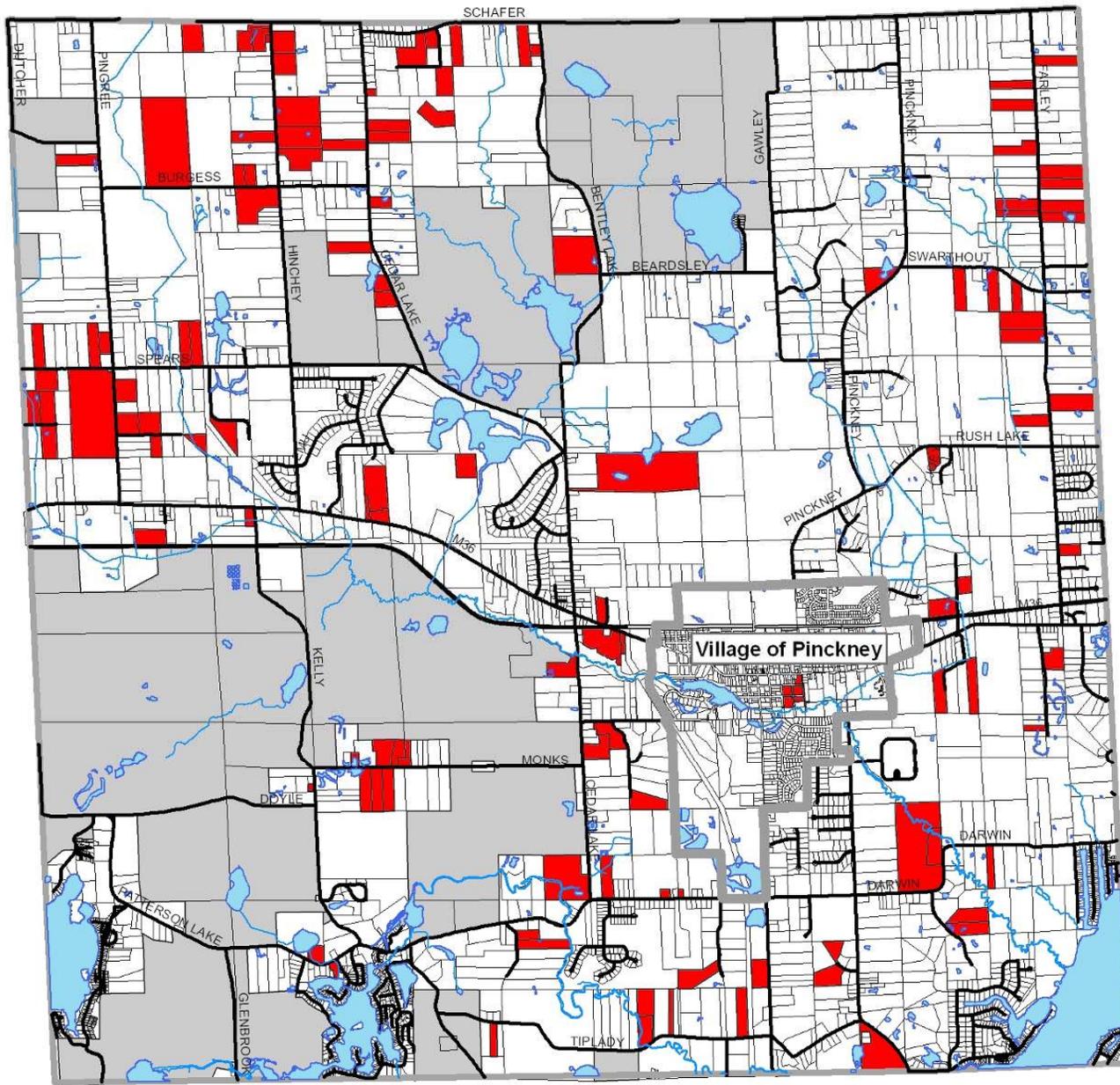
A key component of this classification is equestrian ownership and activities. Livingston County had an inventory of 2,995 horses and ponies in 2002 (U.S. Census), which was the 6th highest equine population for any county in Michigan that year. Only Washtenaw (3,884), Oakland (3,861), Jackson (3,282), Kent (3,239) and Lapeer (3,038) counties had higher populations of horses and ponies.



In 2004-2005, volunteers took an informal "census" of horses and horse farms. They found a total of 612 horses owned by 107 families. Horse farms are fairly well distributed throughout the township and have an average size of 11.2 acres (see *Appendix 2 and Map 10*). This indicates that horses and horse farms are highly valued and that the Township wishes to recognize and preserve this aspect of its rural character.

Local research on land sales also shows a demand for large tracts that can support horses and other small scale agricultural activities. A summer 2004 review of available properties in the township revealed that the supply of properties that lend themselves to the keeping of horses is

MAP 10 Putnam Township Equestrian Properties Livingston County



- Equestrian Properties
1,436.8 Total Acres
Average Parcel Size = 11.2 Acres
- Institutional Properties



LSL Planning, Inc.



Sources:
Putnam Township Horse Census, 2004*
Michigan Center for Geographic Information (2004)
Livingston County IT Department, GIS Management Division (2004)

*Data partially based on roadside observation. Accuracy is not guaranteed.

insufficient to meet the demand. This becomes evident when average sale times of different parcel sizes are compared:

- Of the 160 vacant parcels of land for sale at the time of the review, only 10 (6%) were five acres or more (78% were one acre or less). According to the Livingston County Board of Realtors, in 2004 the average time between listing and sale of unimproved properties of 5 acres or more in Putnam Township was 20 days. The average time to sell unimproved property of one acre or less was 305.5 days.
- Of the 222 homes for sale in the township at the time of the 2004 review, only 17 homes (8%) were on five acres or more. 92% were on less than 5 acres. The average time between listing and sale for homes on 5-acre lots was 58 days. Homes on 1 and 2 acres took an average of 136 days to sell.

Thalheimer Research Associates found in their report entitled Economic Impact of the Equine Industry on the Village of Wellington (Florida), that the direct and indirect economic activity of the equestrian industry was an important contributor to the Village's economy.

Horse owners spend their money locally. Their purchases of hay, grain, fencing, stables, tack, veterinary, farrier and other products and services are primarily local purchases. Because these expenditures are significant—the average annual maintenance cost *per horse* is roughly \$275 a month (\$3,300 a year), and since the majority of horse owners own an average of 2.5 horses, horse owners provide great economic benefit to their local communities, both in dollars and jobs.

Contrary to the commonly held notion that horses are kept primarily on large acreage farms, 64% of horses within the

township are kept on 20 acres or less. By zoning district, 25% of the farms are on land zoned for five acre lot sizes or less (*see Appendix 2*). Most horse owners agree that one acre of grazing land per horse is a good guideline.

Experience has shown that developments with bridle paths both increase property values and provide a safe alternative to walking and riding on the shoulders of roads. They also foster small-acre agricultural uses, preserve open space and enhance the rural character of the community.

Horse properties are environmentally beneficial. Pastureland, with its grass and trees, serves as a natural windbreak, reduces water runoff and aids in soil retention. A tertiary benefit to the community is an aesthetic one: neatly fenced and maintained horse farms lend a pleasant vista to visitors passing through the area.

This classification also includes large tracts of land that form major open space centers in Putnam Township. It is unusual and unique that so much land is in public or semi-public ownership especially in a rapidly urbanizing area such as Livingston County. But that situation could be tenuous given difficult economic times and changing social and demographic patterns that can affect such organizations as the Girl Scouts and state universities.

In keeping with its goal to maintain a rural environment the Township should support continued public and/or semi-public ownership of these key lands. However, should economics compel a change in that ownership and some, or all of these parcels are considered for development, it should be accomplished at very low residential densities.



Equestrian resources are not only important to horse owners but they also contribute to the preservation of rural character in the township. Certain features associated with equestrian activities, such as pastures, stables, rural fences and paddocks, play a critical role in defining the character of Putnam Township -- providing the spice that distinguishes it from other rural communities.

Equestrian activities play important economic, psychological and aesthetic roles. The presence of the equestrian industry in the township enhances the local economy by helping to support a specialized segment of retailing and it increases the demand for housing, particularly on larger lots that are able to accommodate horses.

Implementation Techniques

(Also see RP Implementation Techniques)

Equestrian Implementation Techniques

It is vital that equestrian activities and horse ownership, which add to the unique and desired character of the township, be maintained and supported. Over time, the Township may wish to investigate other communities to determine some specific actions that have been successful in supporting this important economic influence. Implementing an equestrian emphasis in the township could take several forms, such as:

- Preserve and add to existing equestrian trails, through efforts of the Township or private development.
- Limit certain land uses for properties in an equestrian overlay district regardless of zoning or general land use category, to support equestrian-related uses.

- Allow, as a matter of right and subject to appropriate limitations provided for in the zoning ordinance, uses such as the keeping of livestock, grooms' quarters, private and commercial stables, riding rings, practice fields, and other ancillary equestrian facilities and uses.
- Relax the number of horses permitted in an overlay district area.
- Use conservation easements, or other methods to preserve natural areas within an overlay district.
- Promote traffic safety related features such as road/trail crossings, signs, speed limitations, etc. Vehicular traffic, especially at high speeds, poses the most severe threat; therefore, increasing traffic at speeds incompatible with equestrian activities must be controlled. Roads should be unpaved in these areas as they limit traffic speed and are compatible with equestrian uses.
- Promote the community (through the Chamber of Commerce, Visitors and Convention Bureau, etc.) as an 'equestrian-friendly' township.



Although listed under an Agricultural Preservation classification, equestrian activities may also occur in other areas. Appropriate implementation techniques may be used in these areas as well.

RP RURAL PRESERVATION

Base Density: 5 acres, up to (but not including) 10 acres

Description

The RP classification accommodates low density single family development in a rural environment, while preserving and protecting visual character and natural features such as wetlands, stream corridors, steep slopes and woodlots. The development patterns encouraged by this classification are also compatible with and supportive of agricultural areas and farm settings.

To maintain rural character, homes are either located on large, widely spaced lots and are graciously set back from the road edge, or they are clustered together, forming small pockets of residential development surrounded by open space. These techniques, coupled with significant setbacks, permit development flexibility and allow homes to be sited so they do not dominate roadway views.

Clustering and setbacks also encourage tree preservation, the ability to respond to and use natural topography to screen or hide objectionable views, and help preserve vital rural features such as open fields and hedgerows. This allows residential areas to be located away from the edge of existing rural roads and streets helping to support a key plan vision; to preserve rural character. Development is served by private wells and septic and gravel streets.

Implementation Techniques

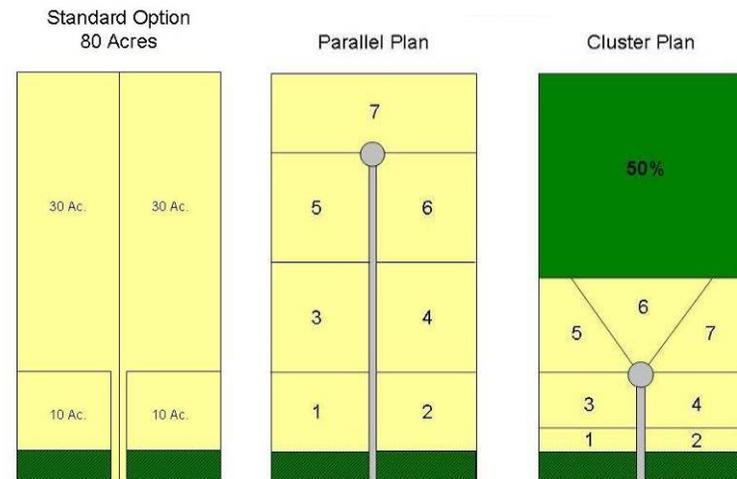
Standard Option - Ten-acre minimum lot size, and large minimum lot widths and building setbacks (200 feet or more) for those lots that front on existing public streets. Private

driveways can be used to service a limited number of properties located off the main roads.

Open Space (Cluster) Option

Parallel plan determines permitted density:

- Ten acre minimum lot size
- Public streets
- 200 foot setback from existing perimeter public streets
- 330 foot minimum lot width (except that one lot that does not meet the minimum lot width requirements may be permitted at the end of a cul-de-sac)

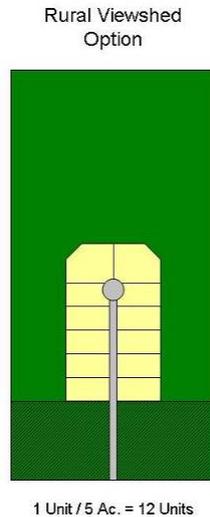


Open Space (Cluster) plan density is determined by the parallel plan:

- Public streets
- 50% of the site must remain as open space
- 200 foot setback from existing perimeter public streets
- No lot size minimums

Rural Viewshed Option

- 500 foot setback from existing perimeter public street/roads
- Maximum permitted density of one unit per five acres, based on gross acres net of the required setback area. In the example to the right, the setback area consists of 20 acres, so the remaining 60 acres can accommodate 12 dwelling units.



In these cases, open space is located along and is clearly visible from the road. Such techniques enhance rural view sheds and help preserve tree stands and other unique environmental features.

For those LDR areas where public water and sewer service is possible, development is clustered at higher development densities. In such cases, the purpose of clustering is not necessarily to just preserve rural character, but also to encourage the efficient use of existing infrastructure and to support higher development densities, especially adjacent to the Village of Pinckney. Here again though, open space is strategically located so that it is clearly visible from streets and is accessible to nearby residents. The majority of development in this classification is served by private wells and septic and gravel streets.

LDR LOW DENSITY RESIDENTIAL

Base Density: 3 acres, up to (but not including) 5 acres

Description

The LDR classification accommodates single-family development at relatively low to moderate suburban densities in areas located near existing residential development and the village of Pinckney. These are semi-rural areas not significantly affected by environmental constraints, and on-site sanitary sewer service and water may be readily accommodated.

LDR development patterns respond to and help preserve rural visual character by maintaining adequate setbacks and by minimizing the number of lots that directly front onto existing public streets and roads. Where no other option is available and homes must front onto existing streets, they are set back significantly and, where possible, they are clustered together.

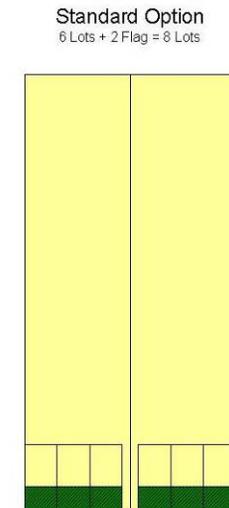
Implementation Techniques

Standard Option – Two to five acre minimum lot size; 150 foot setback and minimum 200 foot lot frontage adjacent to public or private streets. Up to two flag lots are permitted.

Open Space (Cluster) Option

Parallel plan determines permitted density:

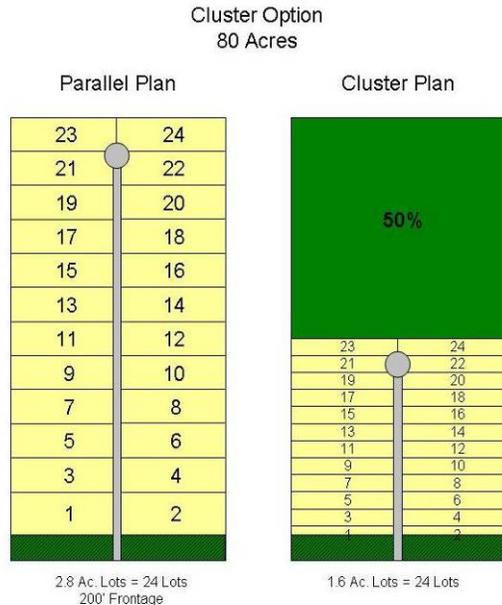
- Two to five acre minimum lot size
- Public streets
- 150 foot setback from existing perimeter public streets/roads



- 200 foot minimum lot width (except that two lots which do not meet the minimum lot width standard may be permitted at the end of a cul-de-sac)

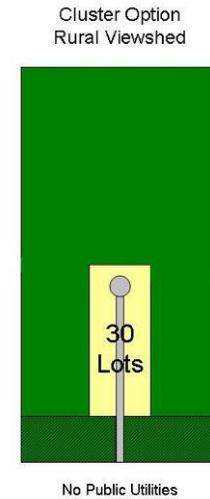
Open Space plan density is determined by the parallel plan:

- Public streets
- 50% of the site must remain as open space
- 150 foot setback from existing perimeter public streets/roads
- No lot size minimums.



Rural Viewshed Option

- 300 foot setback from existing perimeter public street/roads.
- 50% minimum open space requirement.
- Maximum permitted density of one unit per acre based on gross acres net of the required setback and open space area. In the example to the right, 30 acres are available for development after the setback and open space minimums are met.



Public Utility Cluster Option – To

encourage the provision and/or preservation of open space within a development a reduction in lot size is permitted. As the percentage of open space increases, required lot size is reduced and setback requirements are relaxed.

MDR MEDIUM DENSITY RESIDENTIAL

Base Density: 1 acre, up to (but not including) 3 acres

Description

MDR classified areas are located near existing residential development and provide a transition between higher and lower densities with single family lot sizes ranging from 1 to 3 acres. Given the overarching desire to maintain the township’s rural character, homes do not gain direct driveway access from existing perimeter arterial and collector roads, but rather they are accessed from within a development through a series of interconnected streets. Views of residential neighborhoods are screened along perimeter roads by significant landscaped buffers, areas of preserved and

protected trees and woodlots and changes in topography, such as berms. Areas with the lowest development densities are served by private wells and septic and gravel streets.

As densities increase, however, development character changes and public utility services and paved streets become necessary and desirable. Streets still have a rural feel with open grassed swales to accommodate storm water and they maintain minimum pavement widths. In conjunction with landscaped buffers along neighborhood edges, any internal open space is strategically located so that is clearly visible and accessible to the majority of neighborhood residents.



Implementation Techniques

Open Space Option - To encourage the provision and/or preservation of open space in a development, a reduction in lot size is permitted. As the percentage of open space increases required lot size is reduced and setback requirements are relaxed.

HDR HIGH DENSITY RESIDENTIAL

Multiple family and single family residential with public services (1 to 4 dwelling units per acre)

Description

HDR areas contain multiple family and higher density single family in close proximity to already developed neighborhoods

in the township and/or the Village of Pinckney. Compared to other residential classifications, HDR accommodates more urban densities with reduced building setbacks. However, views of development from the street remain important. Depending on the character and location of proposed neighborhoods, different techniques can be used to achieve this objective.

Near the Village of Pinckney, HDR areas are developed at higher densities with inter-connected streets that are laid out in grid patterns; consistent with existing village development. Streets are lined with sidewalks, trees and grassed sidewalk parkways. Homes are located in clear and distinct geometric patterns near the street edge, irrespective of building type. Views of parking lots and garages are screened either by buildings, landscaping and/or low walls, or they are located at the back of lots.

Homes are designed to reflect traditional architectural values. These include locating front doors facing the street, providing ample windows along front facades and reducing the impact of front loaded garages on the streetscape. Front yards clearly become dominant design features and provide a transition between public sidewalks and more private spaces that surround homes or buildings.



For HDR areas that are located in more suburban settings, farther from the Village of Pinckney, development character and

design techniques change. Although the view from the street remains important, it is addressed in a different way. Streets and sidewalks are more curvilinear and respond better to topographic features. However, they remain linked with surrounding neighborhoods, thereby enhancing vehicular and pedestrian connections. Homes and buildings are sited in a way that reflects a more relaxed road layout pattern and neighborhoods assume a less rigid form. Building setbacks, especially at the perimeter of a development, are increased and help provide a buffer and transition to the street. Parking lots may not necessarily be located behind structures, but they are still screened and buffered by earth berms and landscaping.

In general, these areas are served by public utilities and streets are designed to meet urban development standards with an emphasis on maintaining minimum pavement widths. Sidewalks and street trees are also provided. Stormwater management is designed and handled in a way that is more compatible with an urban setting; therefore, open stormwater detention basins and roadside drainage swales are avoided.

Implementation Techniques

Urban Code – Form based code provisions for areas located adjacent to the Village of Pinckney.

Review Standards – Design standards and clearly defined site plan review criteria and subdivision requirements.

LR LAKE RESIDENTIAL

Lakefront Development Areas.

Description

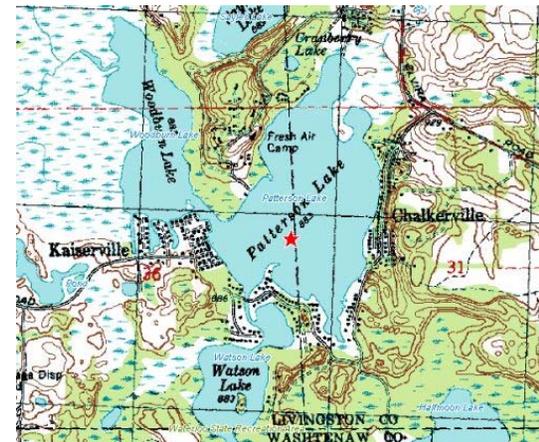
This classification serves a number of purposes, but it is primarily intended to protect shoreline development along

township lakes and to ensure that it is compatible with surrounding development. This land use area is concentrated around Patterson, Portage and Hi-Land Lakes.

Development within LR areas is sensitive to the need to preserve the qualities that make lakeshore living desirable, while at the same time protecting these resources for the general public. One of the most important aspects is the ability to maintain views to the water.

Planning is vital to water quality protection, just as water resources are vital to planning and guiding land use decisions. Water resources are part of a fragile system that is potentially at risk. A combination of poor soils unsuitable for septic systems, a high water table, and an increasing amount of rural development may begin to threaten the quality of an area's water supplies. Surface water features - lakes, streams, rivers, and ponds - are directly affected by land development. Soil erosion, impermeable surfaces (such as parking lots and roofs) and associated water runoff, soil contamination, and recreational activities can each negatively affect these important resources.

Preserving water quality helps protect fish and wildlife, outdoor recreational opportunities, community aesthetics, the local economy, and area property values. Specific regulations, such as those pertaining to soil erosion and



sedimentation control practices, protection of wetland areas, increased water body setbacks, the use of greenbelts or buffers, and density reductions are among the techniques that can assist in protecting these natural features.

Most lakefront properties along Portage, Hi-Land and Patterson lakes have already been developed at relatively high densities with little regard to protecting sensitive environmental areas or addressing water quality issues. Since development has already occurred, little can be done to reverse long-term environmental impacts, or to change land use patterns, or character.

That is not to say, however, that attempts to improve the situation should not be made. Education programs and materials addressing issues such as the impact of fertilizers and nutrients and the loss of native vegetation and wildlife habitats on water quality should be encouraged and supported by the Township. In addition, given that many of these lakefront areas are currently served by private wells and septic systems, the long-term effects on water quality and public health are unknown. As a result, and with additional study, the provision of public water, sewer and perhaps stormwater management systems should be considered.

Some lakes and ponds in the township, however, remain pristine and appear to have high water quality levels. Consistent with Putnam Township's vision, these water bodies deserve protection. Therefore, in these locations, development and homes should be set back from the water's edge and shorelines should remain undisturbed with a band of existing vegetation serving a water quality function to scrub and remove nutrients. In addition, septic systems should be well separated, both vertically and horizontally, from surface and groundwater.

Implementation Techniques

Education Programs – Township supported programs to help educate the public about ways to improve water quality such as lake edge native vegetation buffers and alternatives to lawn fertilizers.

Lake Residential Overlay District – Overlay zone district that controls development and septic system setbacks; grading and vegetation removal.

MHP MANUFACTURED HOME PARK

Near the Village of Pinckney on D-19

Eighty acres contiguous to the northern village limits of Pinckney on the west side of Pinckney Road/D-19 are designated for manufactured home park development. This site is convenient to Village services, including schools and fire protection. The site also has access to improved roads. Development of manufactured home parks are subject to the requirements of the Zoning Ordinance.

LB LOCAL BUSINESS DISTRICT

Select locations

Description

According to the Community Survey and Planning Commission discussions, there is not a strong desire for widespread commercial in the township's future. There is a desire for some limited convenience service at specific locations, but these should be compatible with the character of the township, complement existing businesses in the Village of Pinckney, and not create the appearance of commercial strips.

LB areas are relatively small commercial areas that serve a limited market at a neighborhood scale. Generally, total building sizes should be limited to 5,000 to 10,000 square-feet, or less. Sites should be at least two acres and have at least 200 feet of frontage along a public street. They should also have sufficient lot depth. These centers provide convenience goods and personal services to a localized geographic area. They are well integrated into a neighborhood setting and have minimal affects on traffic volumes and congestion since most customers are from the area being served.



Centers are designed to blend architecturally with surrounding neighborhoods at a residential scale. The size and design of parking lots reflect similar characteristics in that they are screened from view, are well landscaped and contain low-key lighting and signs. Driveways are located as far as possible, (generally not less than 150 feet) from public street intersections in order to minimize potential traffic conflicts. In most situations, only a single driveway is permitted unless a professional traffic study determines that a second drive is needed to accommodate higher traffic volumes.

Implementation Techniques

Future development of these areas is intended to take place in a manner that is consistent with the township's rural character. This includes consideration of:

- shared driveways and parking areas;
- consistent site elements, such as landscaping and lighting;
- roadway improvements, including turning lanes, deceleration lanes and others; and
- signs that are consistent with the neighborhood and rural character of the township.

Development in commercial areas must also be sensitive to existing and planned residential development in the neighborhood. Consideration must be given to the locations of buildings and parking areas, lighting, noise and other potential nuisances, and location of activity areas such as loading and trash collection.

Managing access to individual sites will also be an important consideration. See Appendix 1 for Access Management recommendations.



GB GENERAL BUSINESS DISTRICT

Near the Village of Pinckney and M-36

Description

These are commercial centers that are larger in scale and serve a community wide market. However, since commercial and business services are readily available in nearby communities, there is no demonstrated need for a significant number of new business or commercial locations. Furthermore, given the township’s rural character and the lack of widespread utilities and infrastructure, significant additional commercial development could place an undue burden on available services.

Food, general merchandise and specialty retail stores, personal services, eating and drinking establishments and general office uses, typically anchor GB areas. It is very

important that they be carefully planned and concentrated, rather than be allowed to “sprawl” out along main roads. When located along M-36, these centers reflect traditional suburban design principles: gracious setbacks; screened and landscaped parking lots configured in a way so that the scale and size of the lot does not dominate the streetscape; subdued lighting and signs; adequately screened service areas, and appropriately scaled buildings with ample storefront windows facing the street. In the case of multi-building centers, a consistent architectural design theme is evident.

Centers located adjacent to Pinckney are somewhat different in character. Here they reflect more traditional urban development patterns, with storefront buildings located adjacent to streets that contain wide sidewalks lined with trees. Front doors open to the sidewalk and ample windows provide clear views into retail and commercial spaces. For customer convenience, on-street parking is available near the fronts of stores, while surface parking lots are located at the rears, or to the sides of buildings and they are screened with low fences, walls, or landscaping. Open space is consolidated and strategically located to create the sense of a public plaza or park. In a way, these centers are extensions of downtown Pinckney, competing directly with existing businesses.

Implementation Techniques

Commercial Design Standards – Development of properties within the GBD classification should generally be limited in terms of the overall size and intensity of commercial





Commercial Character

development, and provide goods and services more oriented to local residents, rather than highway traffic. Generally, total building square footage should be limited to 5,000 to 10,000 square-foot areas or less. Sites should be located on lots of at least an acre with at least 200 feet of lot width.

Other considerations for this development include compatibility with

surrounding existing and planned land use; traffic safety and convenience; shared driveways and parking areas (see Appendix 1); consistent site elements, such as signs, landscaping and lighting; roadway improvements, including such elements as turning and deceleration lanes; and other factors that are consistent with their neighborhood and transitional characters.

- Parking lots should be buffered by perimeter landscape, particularly for parking areas abutting a roadway.
- Larger parking areas (i.e., in excess of 25 spaces) should be broken up with internal landscaped areas. These may be in the form of plant clusters, plant islands, etc.
- Greenbelts (plant islands) should be used to assist in directing traffic by separating access and primary circulation drives from the actual parking areas.
- All parcels should possess a fully landscaped, frontage greenbelt using applicable design standards.

- Landscaping should also be provided to protect adjacent land uses of lesser intensity, such as residential uses.

LI LIGHT INDUSTRIAL

Description

Industrial uses will generally be limited to those areas that may be served by public utilities. Certain industrial uses may be permitted without utilities, but will usually be restricted to those operations that do not require large scale waste disposal or water use, such as auto repair businesses and small machine and fabricating shops. Should the Township consider such an intense use, it should be in an area where public utilities exist or can be extended.

Implementation Techniques

While no specific areas are proposed for industrial use in this Plan, industrial properties will generally have the following characteristics:

- Access to an appropriate roadway capable of accommodating the weights and/or volumes of trucks.
- Availability of public utilities.
- Sufficient property to accommodate generous setbacks for parking, loading, and other activity areas.
- Designed in a way to limit any negative effects on existing homes, or other uses.

The negative effects of this potentially intense land use may be minimized by limiting industrial development to the areas where highway access is available, particularly to M-36. These areas present better opportunities for more intensive development. The intent is to allow for economic and employment opportunity expansion within the township without

detracting from the rural character of the rest of the community.

EVALUATING LAND USE CHANGE

Changing a land use or zoning designation on any property can have far reaching consequences: physically, environmentally, financially, and legally. Therefore, a careful evaluation of any proposed rezoning is essential. As with any land use decision, the application of clearly defined standards is essential to reaching fair and consistent decisions. The following evaluation measures are included in the Master Plan to permit their use by the Planning Commission and Township Board when rezoning, or when land use changes are contemplated.

Consistency with the Vision and Goals of the Future Land Use Plan

If conditions upon which the Master Plan was developed have changed significantly since its adoption, such as economic factors, demographic shifts, new utility lines, changing traffic conditions, or other reasons, the Planning Commission and the Township Board should consider these events as part of their deliberation to insure that the Master Plan is current. Particular attention should be paid to the Vision and Goals to ensure that they remain valid, and that the proposed rezoning or land use change does not impair their intent.

Compatibility

All of the uses allowed in the proposed district should be compatible with the conditions present on the site and in its immediate vicinity, especially in terms of density, character, traffic, aesthetics, and property values. The Master Plan provides several guidelines, as noted above, which should be

considered when determining whether a proposed zone district is compatible with the neighborhood and the township as a whole.

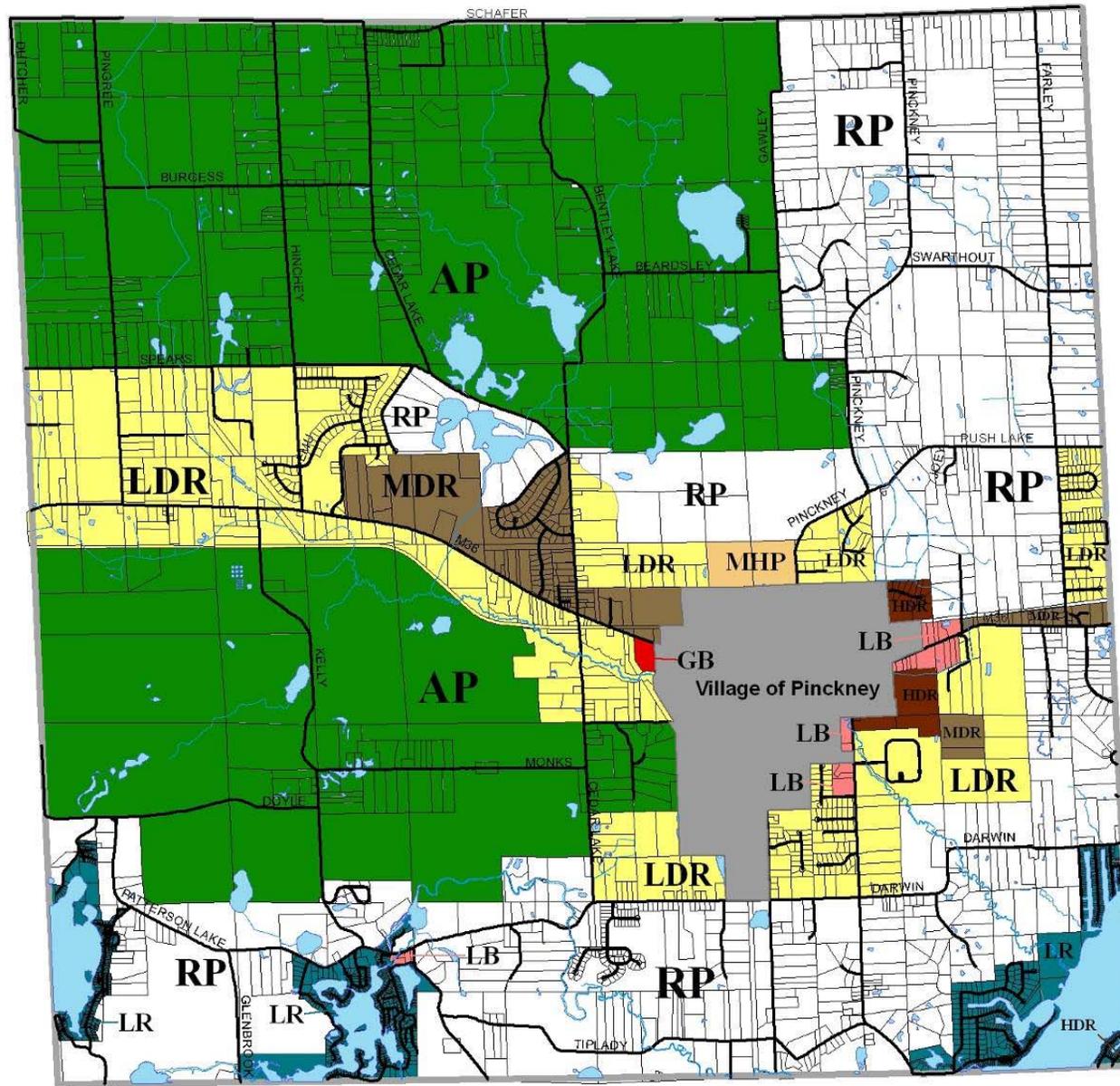
Capability of Being Used as Zoned

It is the right of every property owner to receive a reasonable return on investment from his or her property. This does not mean that zoning is a slave to the "highest and best use," which is not a zoning term, but a real estate term. But it does mean that there should be a reasonable use available within a zoning district. However, if it is determined as part of a rezoning request that the property is capable of being used as zoned, a compelling reason advanced by the applicant to change a zoning classification must be clearly made. These reasons may be related to the first two standards of consistency and compatibility.

Sometimes petitioners attempt to influence Planning Commission and Board decisions by presenting elaborate site development plans. Site plans are generally not considered as part of a rezoning request (with the exception of a Planned Unit Development or as part of a Conditional Rezoning process); therefore, the Planning Commission and Board should not be swayed by what is proposed. Instead, decision makers must specifically note that ALL of the uses permitted in the proposed district may be placed on the site; not just the one shown on a site plan. It is imperative that rezoning requests be viewed in this light.

CONCLUSION

The Planning Commission and Township Board of Putnam Township have assumed their responsibility to look beyond today's zoning issues and provide long term guidance for land use and development through the adoption of this Master Plan. The Plan will provide tangible benefits in improved quality of life, efficient use of financial and other resources, a cleaner environment, and an economically healthy community. However, those benefits are directly related to the willingness of the township's citizens to follow the Plan, and to keep it current. It is hard work; but the rewards will make the effort well worthwhile.



Putnam Township Future Land Use Livingston County

Future Land Use Categories

-  AP - Agricultural Preservation (10 acres and greater)
-  RP - Rural Preservation (5 to <10 acres)
-  LDR - Low Density Residential (3 to <5 acres)
-  MDR - Medium Density Residential (1 to <3 acres)
-  HDR - High Density Residential (1 to 4 dwelling units per acre)
-  LR - Lake Residential
-  LB - Local Business
-  GB - General Business
-  MHP - Manufactured Home Park



LSL Planning, Inc.



Sources:
Michigan Center for Geographic Information (2004)
Livingston County IT Department, GIS Management Division (2004)



APPENDIX ONE

The Community Survey conducted for the Putnam Township Master Plan identified “traffic management” as a Moderate or High Priority issue by 77% of survey respondents. Growth in both the township and adjoining communities has affected the traffic system in Putnam Township, particularly the major thoroughfares (M-36 and D-19). Since increases in traffic are an outcome of development, traffic should be “managed,” just like development.

Access management is a set of traffic management methods designed to promote traffic flow, increase safety, and improve aesthetics along roadways. The goal of managing access is to improve traffic operations and safety while retaining reasonable access to existing and future development along the roadways. Access management can provide benefits to motorists, communities and land uses within the township, including:

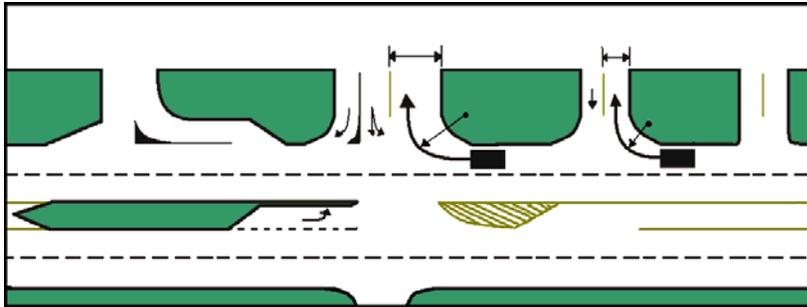
- reducing crashes and crash potential;
- preserving roadway capacity and the useful life of roads;
- decreasing travel time and congestion;
- improving access to and from properties;
- ensuring reasonable access to properties (though not necessarily direct access nor the number of driveways preferred by the landowner/developer);
- coordinating land use and transportation decisions;

- improving environment for pedestrians, cyclists and other non-motorized users (fewer driveways to cross);
- improving air quality; and
- maintaining travel efficiency and related economic prosperity.

Access management involves the following elements: limiting the number of access points; careful placement and spacing of access points from other driveways and intersections; efficient placement and timing of traffic signals; small scale road improvements to separate turning movements from through traffic; and reducing the number of turns through connections between uses. More than one technique is usually required to address effectively any existing or anticipated traffic problems, but the resulting improvements can be significant for a relatively low cost in comparison to roadway reconstruction.

Preserving the traffic carrying capacity of a roadway is essential in order to avoid costly improvements and safety problems. Transportation studies have consistently shown that the number, design, and location of driveways can have a great affect on the ability of a road to safely move traffic and provide access for adjacent land uses, and affects traffic flow, ease of driving, and accident potential. Every effort should be made to limit the number of driveways and encourage access from side streets, service drives, frontage roads, shared driveways, and (where appropriate) interconnection of developments with streets and pedestrian ways.

The most effective means of ensuring proper access management is the site plan review process, enforced through the zoning ordinance. However, in order to properly administer site plan review, the Township should ensure that future land use along major corridors adequately considers the function of the adjacent roadway.



A common misconception is that local communities have little or no input on driveway locations if the state or county has jurisdiction over the roadway. Although local regulation cannot conflict with the road authority (i.e. be less restrictive), it can control driveway locations through the site plan review process. Local governments do have authority to control the placement and spacing of curb cuts (as long as they are not less restrictive than the road authority). The following driveway design elements can be included as part of site plan review:

- Medians/ Channelization islands prevent left-in/out, reducing conflict.
- Dedicated turn lanes channel traffic out of thru lanes early-on.
- Higher-use driveways with two egress lanes prevent internal congestion.
- Larger turning radius from wider driveways mean more gentle ingress; less deceleration needed in through lanes.
- Shared access and access between developments.

The measures noted in the following discussion should be considered when reviewing site plans along major roadways.

Lots on Arterial Streets

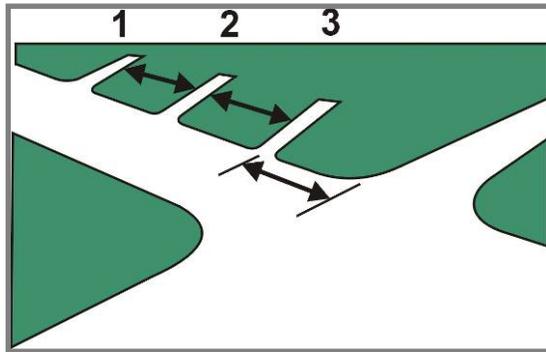
Lots that face major streets often have access only from those streets, particularly if the interior lands are not part of the development. As a result, a large number of individual driveways closely spaced along major streets can create a hazard.

Two solutions are possible. If the interior of the property is also being developed, as many lots as possible should be required to gain access from the interior streets. The interior street should be placed on lot depth into the property and the homes should back up to the major street. Additional landscaping or fencing may be provided for the back yard areas of these homes.

If interior development is not taking place a second solution would be for two or more lots to share a common driveway for the first several feet of the lot, and then split into individual driveways. If neither of these solutions is possible, each lot fronting on a major street should be required to construct a turn-around area within the property to allow vehicles to enter the street facing forward.

Driveway Spacing

Since speed along major roads within the township is an ongoing concern, spacing between driveways must be carefully considered. Increasing the distance between each driveway provides a measure of safety by ensuring that drivers can identify the location of driveways. Increasing driveway distance also allows a longer distance to slow down to enter the driveway and helps to prevent conflicts when exiting.



The Zoning Ordinance may call for a minimum frontage on major roadways that will be developed for more intensive land uses. Proper spacing will help ease

traffic conflicts between driveways and vehicles on the street. Driveway spacing (and lot frontages) should be less on those streets that are developed with land uses that generate less traffic.

Driveway controls are especially important when considering commercial and other nonresidential development. Spacing of drives should be as far from the intersection of public streets as possible. Sharing of drives for adjacent properties should also be required, where feasible. Limiting access points helps provide an added measure of safety for uses that generate higher volumes of traffic, by centralizing ingress and egress locations.

Access points should directly oppose or be offset from opposing property access by a distance sufficient to prevent conflicts with turning vehicles. A generally accepted guideline for minimum driveway offset distance is 150 feet.

Guidelines for minimum centerline travel distances between road intersections and private driveways should be adopted in the Zoning Ordinance. Individual development projects should only be allowed to vary from these guidelines if it can be demonstrated by a traffic impact study that the driveway

operation will not result in conflicts with vehicles at the adjacent intersection. Median landscaping or aesthetic treatments can help to manage centerline travel distances.

Minimum and desirable driveway spacing requirements should be determined based on posted speed limits along the parcel frontage. In general, MDOT guidelines for access spacing should be encouraged in an effort to decrease traffic interruptions and conflict points between intersections.

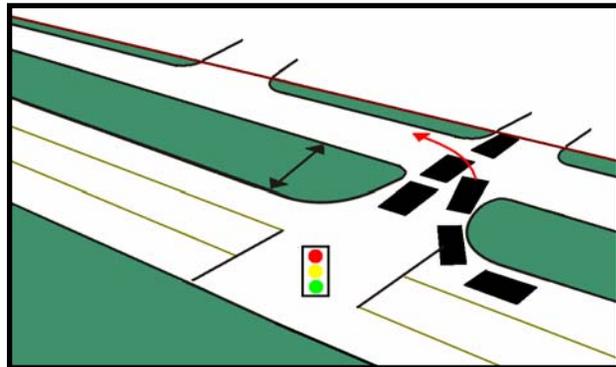
In the case of expansion, alteration, or redesign of existing development where pre-existing conditions prohibit the ability to meet minimum driveway spacing requirements, driveways may be located closer than the minimum standards, so long as an absolute minimum (i.e., 60 feet) is maintained.

Driveway Locations

Access to major roadways should be provided at a safe and convenient location. Adequate sight distances need to be provided. Access to individual parcels should consist of either a single two-way driveway or a pair of one-way driveways. Certain developments generate enough traffic or have functional needs to consider allowing more than one driveway along a major street. Where possible, these second access points should be located on a side street or shared with adjacent uses. Where parcels have frontage on both an arterial and a side street, access should be provided from the side street.

Shared Driveways, Frontage Roads, and Service Drives

Sharing or joint use of a driveway by two or more property owners increases overall safety along a roadway by reducing the number of vehicle slowing/stopping locations and reducing the number of drives that pedestrians or bicyclists must cross. This will require a written easement from all affected property owners during the site plan approval process. Where a future shared access is desired, the developer should indicate an easement that will be provided to future adjacent uses. In areas within 1/4 mile of a future signal location, as indicated by the Township, County or MDOT, access to individual properties should be provided by alternative access methods (frontage roads, service drives) rather than by direct connection to the major roadway. Individual driveways from

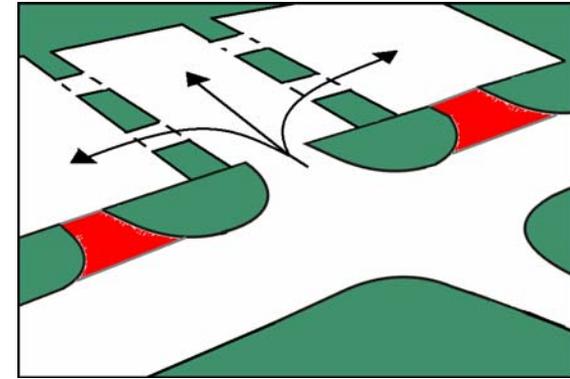


residential subdivisions should not be permitted direct access to a major road.

In the case of existing, proposed or recom-

mended rear service drives, additional access to individual properties may be allowed through a direct connection to the adjacent arterial street. Movements at driveways with access to arterial streets should be restricted to right turns into and/or out of the site and appropriately spaced. In areas where frontage roads or service drives are proposed or recommended but adjacent properties have not yet developed, the site should be designed to accommodate a

future drive, and access easements should be provided. The Township may grant temporary direct access for individual properties to the arterial street until the frontage road or service drive is constructed. This access point should be closed when the frontage road or service drive is constructed.



Frontage road and service drive intersections at the arterial street should be designed according to the requirements of the Township, County and/or MDOT. A frontage road can be delineated through a parking lot by raised islands separating parking from the traffic lane.

AESTHETICS

While aesthetics alone should not dictate the full extent of improving development along roadways and on developing sites, attention to details would help manage that development and contribute to preserving the character and attractiveness of the community.

Requiring parking setbacks, particularly along the roadway, improves driveway placement and control. Increased parking setbacks can allow for greater vehicle stacking capacity at the driveway opening, control of headlight glare, and space for aesthetic improvements. Greater setbacks also promote

pedestrian safety with continuous sidewalks set back from a roadway. Special consideration should be given to uses with large parking areas to ensure that circulation is safe and does not conflict with pedestrians, other vehicles, and adjacent uses.

Landscaping can perform a number of functions, including screening incompatible land uses, micro-climate control, and improving aesthetics. Landscaped setbacks for nonresidential uses if properly designed can help define the locations of driveways. Landscaping along the roadway causes the road to appear narrower, which tends to slow traffic speed.

More room for landscaping can add to the appearance of a corridor, but is often dependent on location and function. For example, landscaping along a high speed roadway should be clustered to provide a clear visual impact; stringing out plantings will not make an impression on the driver. Plantings may also be used to screen objectionable views, such as dumpsters, parking areas, storage areas, and others.

Large parking lots may also require landscaping to break up the view of acres of asphalt. Interior landscaping in parking lots should be required when the lot exceeds a certain number of spaces. Planting islands should be provided based on the number of spaces (for example, one island per each twelve parking spaces). The landscaped islands should be dispersed evenly throughout the entire area of the parking lot in order to break up large expanses of pavement and may be used to establish pedestrian areas, maneuvering areas, and drives. Each island should have at least one canopy tree for shade. In addition to landscaped islands, landscaping should be provided on the perimeter of the lot to screen the lot and provide headlight shielding.

COORDINATION/IMPLEMENTATION

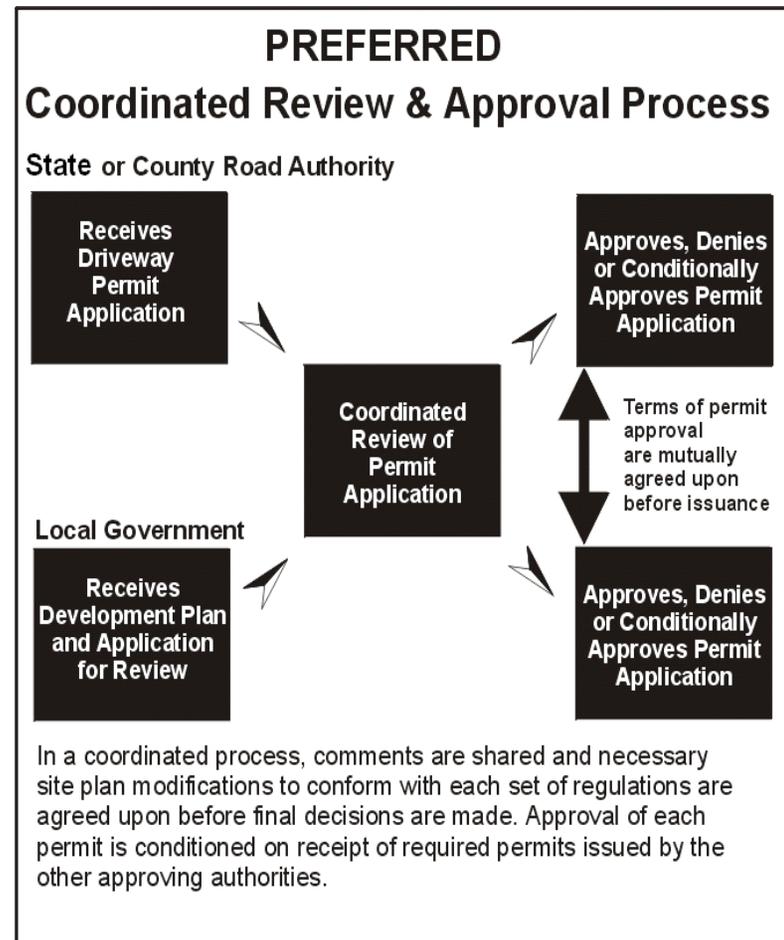
One aspect of development that is universally true along major roadways, such as D-19 and M-36, is the impact of one community on another. Traffic and other effects of commercial development have little respect for community boundaries; development along any one will necessarily affect traffic and quality of life in every community along the corridor. Therefore, solutions to the potential problems of corridor development need to be viewed as regional issues and addressed with a unified approach involving property owners, developers, the Michigan Department of Transportation, Livingston County Road Commission, the Village of Pinckney, and the townships surrounding Putnam. An example of a coordinated review process is provided on the following graphic from the MDOT Access Management Guidebook.

A coordinated review and approval process provides a method of regulatory guidance and establishes a communication process for all of the agencies involved. It is important to identify all of the agencies that may have policies or standards that could have impacts on a project at its outset.

There are two main methods to implement access management guidelines. The first method involves adopting guidelines as part of a master planning effort along jurisdictional roads. The second method involves including specific standards for design, implementation, and review within the Township Ordinance.

There are two primary techniques to apply access management guidelines within the context of Township regulations. As mentioned, additional site plan requirements can be implemented that expand the requirements for information, such as driveway spacing and opportunities for shared drives and cross-access. Expanded design requirements can also be implemented, such as driveway turning radius, spacing, ingress/egress movements, setbacks, and access roads. A Traffic Impact Study can also be required, based on square footage and parking capacity.

Creation of an access management program involves several steps, such as educating the public and receiving public input, analysis of existing conditions, preparation of an access management plan, and adoption of an access management ordinance. The plan and ordinance would need to be adopted by the Township, MDOT, the County Road Commission, and any other affected agencies. Lastly, a process for communication between all agencies involved is necessary to ensure successful implementation and operation of the access management program.



*Putnam Township
Master Plan 2005
EQUINE DATA*

APPENDIX TWO

**PUTNAM TOWNSHIP HORSE CENSUS
NOVEMBER – DECEMBER 2004**

STREET	TOTAL EQUINE	HOUSEHOLDS WITH EQUINE
Toma Road	8	1
Pearl Street	4	1
Tiplady	8	5
M - 36	52	7
Meadow Lane	6	2
Peaceful Valley	12	2
Darwin	32	4
Darwood	7	2
Dexter-Pinckney	1	1
Rachel Marie	7	2

STREET	TOTAL EQUINE	HOUSEHOLDS WITH EQUINE
Cedar Lake	75	9
Sara Jean	7	2
Monks	28	6
Patterson Lake	20	5
Heathside	2	1
Country Lane	6	2
Kelly	1	1
Bentley Lake Road	83	5
Meyers Lane	2	1
Schaefer	75	7
Farley	47	14
Swarthout	11	2
D-19	5	1
Peaceful Valley	3	2
Rush Lake	1	1
Hinchey	25	8

STREET	TOTAL EQUINE	HOUSEHOLDS WITH EQUINE
Spearswood	15	3
Burgess	13	2
Pingree	22	4
Spears	29	3
Bramber	5	1
TOTAL	612	107

EQUINE-RELATED BUSINESSES

- 2 tack/feed
- 5 vets that work on horses
- 7 give lessons
- 1 farrier
- 1 trainer
- 2 stallions at stud
- 6 breeders
- 10 board horses

BY QUADRANT:

- Northwest 284
- Northeast 118
- Southeast 82
- Southwest 128

BY ZONING DISTRICT

District	# of Horse Farms	% of Horse Farms
RIA	2	2%
RIAA	25	23%
R1AAA	47	44%
AO	30	28%
PL	2	2%
PUD	1	1%

**RESOLUTION OF ADOPTION
PUTNAM TOWNSHIP MASTER PLAN
PUTNAM TOWNSHIP BOARD**



WHEREAS, Act 168, Public Acts of Michigan 1959, as amended, provides for a Township Planning Commission to prepare and recommend adoption of a master plan for the physical development of the Township; and,

WHEREAS, the Putnam Township Planning Commission has prepared a Master Plan for Putnam Township in compliance with Act 168; and,

WHEREAS, The Putnam Township Board has passed a resolution asserting the Board's right to adopt the Master Plan and all elements of that Plan, as allowed by Act 168, Public Acts of Michigan 1959, as amended; and,

WHEREAS, Putnam Township distributed the draft Master Plan to the county planning commission, and the planning commissions of surrounding units of government, and all other relevant agencies for review and comment in compliance with Act 168; and,

WHEREAS, the Putnam Township Planning Commission held a properly noticed public hearing on the draft Master Plan on October 26, 2005, in accordance with the requirements of Act 168 and other applicable State statutes; and,

WHEREAS, at the public hearing held on October 26, 2005, and at a subsequent public comment period at the meeting of November 9, 2005, the citizens of Putnam Township were afforded the opportunity to provide oral and written comments on the draft Plan, which comments the Planning Commission has taken into consideration; and,

WHEREAS, the Putnam Township Planning Commission has adopted a motion by a majority vote of its membership recommending adoption of the Plan to the Township Board;

NOW, THEREFORE, BE IT RESOLVED, that the Putnam Township Board does hereby adopt the Putnam Township Master Plan, to be dated as adopted this day of November 16, 2005.

CERTIFICATION OF ADOPTION:

Offered by: McCloskey
 Supported by: Buerman
 Yeas: Knopf, Guyon, Benedetti, McCloskey, Buerman & Dobis
 Nays: None
 Absent: Klein

Resolution Declared Adopted By:
Richard Knopf Sally Guyon
 Supervisor Clerk

November 16, 2005
 Date of Adoption