# Berlin Charter Township

Master Plan 2014







# RESOLUTION TO ADOPT CHARTER TOWNSHIP OF BERLIN, MICHIGAN MASTER PLAN 2014

WHEREAS, the Michigan Planning Enabling Act (P.A. 33 of 2008, as amended), required the Planning Commission to review the Master Plan at least every five (5) years after adoption to amend or adopt a new plan; and

WHEREAS, a letter of intent to update the plan was mailed to: 1) all planning commissions within or contiguous to the municipality; 2) the regional planning commission (SEMCOG); 3) the Monroe County Planning Commission; and 4) each registered public utility company and railroad company owning or operating a public utility or railroad within the Township; and

**WHEREAS**, a Planning Fair was held on September 30, 2013 by the Planning Commission to receive public comment; and

WHEREAS, the Township Board reviewed the draft plan and authorized the distribution of the plan for the required review period; and

*WHEREAS,* the Planning Commission held a public hearing on September 15, 2014 to discuss and consider the proposed plan; and

**NOW THEREFORE IT BE RESOLVED,** the Charter Township of Berlin Planning Commission hereby adopts the Master Plan update, as amended, on this date, October 20, 2014 including all text, descriptive material and maps.

**FURTHER, BE IT RESOLVED,** the Charter Township of Berlin Planning Commission hereby directs the distribution of the adopted plan to the Township Board and required entities in accordance with the Michigan Planning Enabling Act (P.A. 33 of 2008, as amended).

Joshua DeLisle, Planning Commission Chairperson

Ayes: DeLisle, Reaume, Masserant, Logsdon, and Girrbach.

Nays: None

Daniel Rowe, Planning Commission Secretary

Excused: Rowe and Springstead

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# Introduction

# Purpose of the Master Plan

Planning is a process that involves the conscious selection of policy choices relating to land use, growth, and physical development of the community. The purpose of the Berlin Charter Township (Berlin) Master Plan is to state the goals and identify the objectives and strategies regarding land use and development that the Township will pursue to attain those goals.

### How Is the Plan to be Used?

The Master Plan is used in a variety of ways:

- 1. Most important, the Plan is a general statement of the Township's goals and policies and provides a single, comprehensive view of the community's desires for the future.
- 2. The Plan serves as an aid in daily decision-making. The goals and policies outlined in the Plan guide the Planning Commission, Township Board and other Township bodies in their deliberations on zoning, subdivision, capital improvements and other matters related to land use and development. The Plan provides a stable, long-term basis for decision-making providing for a balance of land uses specific to the character of Berlin.
- 3. The Plan provides the statutory basis upon which zoning decisions are made. The Michigan Planning Enabling Act (P.A. 33 of 2008, as amended) 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.
- 4. The Plan attempts to coordinate public improvements and private developments supported by the Capital Improvements Plan. For example, public investments such as road or sewer and water improvements should be located in areas identified in the Plan as resulting in the greatest benefit to the Township and its residents.

5. Finally, 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.

In summation, the Berlin Master Plan is the primary, officially-adopted document that sets forth an agenda for the achievement of goals and policies. It is a long-range statement of general goals and policies aimed at the unified and coordinated development of the Township that compliments the goals of nearby governmental units, wherever possible. It helps develop a balance of orderly change in a deliberate and controlled manner that permits controlled growth. As such, it provides the basis upon which zoning and land use decisions are made.

### **Historic Context**

This document represents a full amendment to the Berlin Master Plan, adopted on January 16, 2007. This document has been updated to include all new information available to the Township, i.e. census and addresses the Township's current desires for the future.

Because communities are constantly changing, the information contained in a plan becomes outdated in time. As the conditions change, so do opportunities and expectations for the future. It is therefore essential to periodically update the information contained in the Master Plan as well as re-evaluate its basic vision and implementation programs. Current State Legislation regarding Township Planning requires five (5) year reviews of the Master Plan. The review process will be discussed in more detail in the implementation section of the Ordinance.

## Planning Process

The process used to generate the Plan consisted of four phases: background studies; evaluation of Township character and development capability; identification of goals and policies; and plan development.

Background studies involving data inventory and analysis from Census data, existing reports, and field survey were gathered. Sound community planning cannot take place by itself. Many factors that exist must be taken into account when formulating plans for the future.

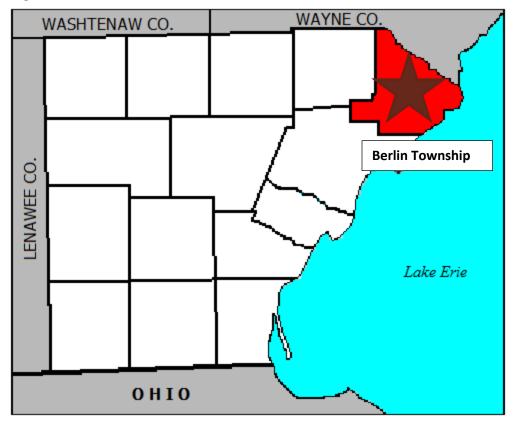
## **Regional Setting**

The need to consider the region surrounding Berlin is of importance. Berlin is located in southeast Michigan in the northeast section of Monroe County. The Township is strategically located between Detroit, Michigan to the north and Monroe, Michigan and Toledo, Ohio, to the south along I-75. More than 4,000,000 people live within a 60-mile radius from the Township in communities such as Detroit, Ann Arbor, Ypsilanti and Pontiac, Michigan; Toledo, Ohio and Windsor, Ontario.

The downriver communities in Wayne County are in close proximity to the north of Berlin. These communities include Flat Rock, Rockwood, Gibraltar, Trenton, Woodhaven and Riverview. The I-75/Newport Road interchange makes these communities easily accessible from Berlin. Three (3) centers are located within the Township including the settlement of Newport, and the villages of Estral Beach and South Rockwood.

Though most of southeast Michigan is considered urban, Berlin has maintained its rural and historic character. The Township's location relative to nearly urban core areas, and its rural character, has and continues to make Berlin an attractive bedroom community. Another attractive feature of Berlin is its location on water bodies of national and regional importance. Berlin's eastern boundary abuts Lake Erie. Lake Erie's shoreline provides residents with many recreational opportunities, provides natural harbors to many inland marinas, and allows access to the Detroit River. The Huron River is adjacent to and abuts the Township's northern boundary, while Swan Creek runs near the Township's southern boundary.

Figure 1. - Regional Setting



Source: Wikipedia

# Regional Planning

Berlin is located in the Southeast Michigan Council of Governments (SEMCOG) region, which encompasses the following seven counties: Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne. SEMCOG provides regional planning services and supports local government planning in the areas of environment, education, community and economic development, and transportation. SEMCOG is also a key resource for data about southeast Michigan, on topics ranging from manufactured housing and building permits to nonresidential development and existing land use. Community profiles and population and employment estimates can also be obtained through SEMCOG.

## **Adjacent Communities**

Berlin adjoins Ash Township to the west, Frenchtown Township and the Village of Estral Beach to the south, and the Village of South Rockwood, the City of Flat Rock and Brownstown Township to the north. Berlin is bounded by Lake Erie to the east.

Figure 2 on the following page illustrates the generalized future land use plans of communities adjacent to Berlin. It is critical for a community to be aware of its neighbor's long-range goals and their potential impact. In the determination of an appropriate future land use arrangement for Berlin, adjacent communities' plans must be considered in order to ensure that the adjacent uses of land are compatible.

### Ash Township

Ash Township borders Berlin to the west. Along the majority of the shared township boundary, Ash Township has planned for agricultural and low density residential development. At Berlin's northwest corner adjacent to Telegraph Road, Ash Township has planned commercial, industrial, medium density residential, and public/semi-public uses. Along Berlin's southwest boundary, adjacent to the Telegraph / I-275 interchange, Ash Township has planned for commercial, low density residential, medium density residential, industrial, agriculture and manufactured home park uses.



### Frenchtown Township

Frenchtown Township borders Berlin to the south. Figure 2 demonstrates the majority of land adjacent to Berlin is categorized as Agricultural with small areas of Marina and Medium Density Residential. The existing Meijer Warehouse which is located in both Frenchtown and Berlin is designated to remain an Industrial classified property.



### Village of Estral Beach

The Village of Estral Beach is located in the southeast corner of Berlin. Estral Beach is predominantly a residential area. Future land uses within the Village include: Medium Density Residential, Marina Residential and Multiple Family Residential.

## Village of South Rockwood

The Village of South Rockwood is located in the north-central portion of the Township. Future land

uses adjacent to the Township boundary within South Rockwood include: Low Density Residential, High Density Residential, Industrial and recreation.



### City of Flat Rock

The majority of land within Flat Rock along the Berlin border (northwest) is a range of residential densities. Commercial properties are demonstrated along and adjacent to Telegraph Road. As shown on Figure 2, Flat Rock has designated land within the following land use categories adjacent to Berlin: Commercial, High Density Residential, Public/Semi-Public, and Low Density Residential.



### Brownstown Township

As shown in Figure 2, the majority of uses planned within Brownstown Township along its shared boundary with Berlin (northeast) are Public/Semi-Public.

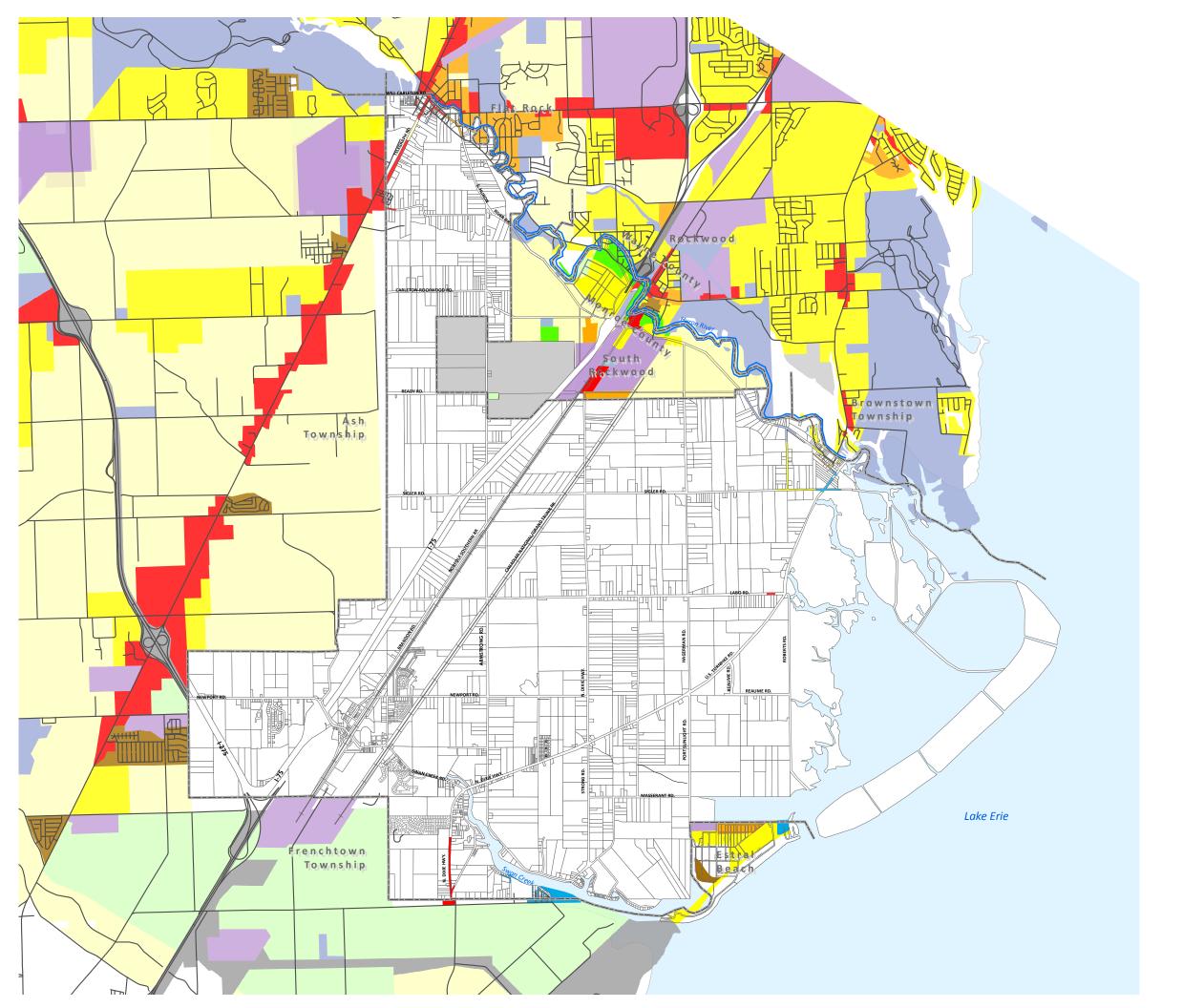


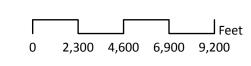


Figure 2

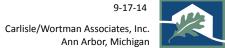
# **ADJACENT COMMUNITIES GENERALIZED FUTURE LAND USE**

Berlin Charter Township **Monroe County** 





Basemap Data Source: Monroe County, Wayne County, & SEMCOG



# **Existing Land Use**

### Overview

Agriculture and Open Space land have been the predominant land use categories throughout the Township's history. These land use categories continue to dominant the landscape in Berlin. However, Berlin is increasingly becoming a bedroom community for larger urban areas. As a result, the residential land use categories are increasing in size as new homes are being constructed on large lots and in new subdivisions. While this trend slowed in the early 2000's, as the residential market demand continues to increase, Berlin is likely to see growth in this area once again.

Patterns of early residential development are found in the Newport Settlement area. Development in this location was limited due to physical barriers such as I-75 to the west and the Norfolk Southern train tracks to the east. More recently, many subdivisions have been built east of the Norfolk Southern tracks on Newport Roads and spread throughout the southern portion of the Township. Smaller developments have scattered throughout the northern portion of the Township.

Commercial development had once flourished along the Telegraph corridor that traverses the extreme northwest corner of the Township. At one time, Telegraph Road (US-24) was the major north-south transportation route in Southeast Michigan, linking Detroit and communities farther to the north with Toledo, Ohio. The heavy volume of traffic on Telegraph Road provided a healthy market for an assessment of retail and service businesses that were developed in a random pattern along the corridor.

Industrial land uses have been limited to land bound by Norfolk Southern Railroad and the Canadian National/Grand Trunk Railroad tracks, located parallel to and east of I-75.

Development of the Township has been affected most significantly by access to I-75 and I-275, which are both major highways in Michigan. The Newport Road/I-75 interchange creates opportunities for regional-oriented development on the southwest side of the Township. The Meijer warehouse in Berlin and Frenchtown Townships is the most prominent example of such development. Many of the new subdivisions have located within the southern portion of the Township due to convenient highway accessibility.

The Township has tremendous development opportunities due to waterfront property and large tracks of land that are mainly undeveloped. Mixed-use developments, such as marinas and residential developments can be developed in numerous locations adjacent to Lake Erie, Swan Creek, and the Huron River. Large tracts of vacant land remain in the Township's interior that has potential for many uses including residential, commercial, and industrial development.

The following table denotes the existing land use categories and quantifies the land area of each in acres and as a percent of the whole. Discussion on each existing land use category is provided below:

Table 1. - Land Use Acreage

Land Use	Acres	Percent
Agricultural	10,683.28	61.57%
Single-Family Residential	3,302	19.03%
Multiple-Family Residential	31.52	0.18%
Manufactured Housing Park	223.64	1.29%
Office	4.69	0.03%
Commercial	91.97	0.53%
Light Industrial	155.13	0.89%
Heavy Industrial	35.06	0.20%
Quarry/Landfill	605.16	3.49%
Institutional	86.62	0.50%
Recreation/Open Space	2,070.89	11.93%
Utility	58.37	0.34%
Waterfront Marina	2.77	0.02%
TOTAL	17,351.46	100.0%

Source: Carlisle/Wortman Associates, Inc.

# Agricultural

As noted in Table 1, approximately 10,683 acres or 61% of the Township's total land area remains undeveloped or is currently being farmed throughout the Township. This is a reduction of 70.86 acres since 2008. The larger, uninterrupted tracts of Agricultural designated land are located south of Will-Carleton Road, between the Township's western boundary and Armstrong Road terminating near Newport Road, and from the Township's western boundary to Pt. Mouille to the east, between Labo and Sigler Roads.



Since new development is often built on Agricultural land, it is anticipated that this land use category will continue to decrease, particularly in the southern portion of the Township due to highway accessibility.

# Rural Estates / Single-Family Residential

Single-family dwellings are located on five (5) acre lots or less. Most Single-Family Residential development is concentrated along Newport Road between I-75 and I-275, and throughout the southern portion of the Township.

Scattered single-family, large lot developments are found throughout the Township. These developments are typically found in linear strips located adjacent to Township and County Roads. Strip residential development on large lots occurs due to the availability of land at an affordable price and a lack of available housing with sanitary sewer service.



Many falsely perceive large lot development as a development tool that protects the community's rural image. Not only does it harm the rural image of a community, it also takes away vital resources. First, homes on large lots displace open space that contains woodland or farm fields which are traditionally associated with the rural landscape. Second, miles of linear large lot residential development does not mimic or exemplify rural character; rather, it exemplifies haphazard development that contains little or no homogeneity in design or preservation of natural features.

# Multiple-Family Residential

The Multiple-Family Residential land use classification accounts for less than 0.2% (32 acres) of the Township's total land area. Newport Woods Apartments (144 units on 10 acres) located on Newport Road west of I-75 is the largest multiplefamily residential development in the Township.



# Manufactured Housing Park

Manufactured Housing Parks encompass approximately 224 acres (1.3%) of the Township's total land area. The Township currently has seven (7) manufactured home parks: Americana, Tiny Village, Huron River, Marina, Elizabeth Woods and Newport Farms.

### Office

A medical office building was constructed in 2005 on Dixie Highway, south of Swan Creek Road. There is a second small area of office use near the I-75 / Swan Creek intersection.

### Commercial

Telegraph Road is the most substantial commercial corridor in the Township containing the most commercial uses and activity. However, Telegraph Road is not readily accessible to the majority of Township residents, nor does it provide a wide variety of commercial uses. Small pockets of commercial development are also found at the I-75 / Swan Creek interchange, along N. Dixie Highway and Armstrong Road.

Little commercial development has occurred in recent years, and is demonstrated by only 0.5% (90 acres) of the total Township land area being occupied by a commercial land use.

## **Industrial**

The Meijer Warehouse/Distribution Center located in southwestern Berlin and northwest Frenchtown Township is the largest industrial operation in Berlin. Other smaller industrial land uses are found west of Port Sunlight Road; the southwest quadrant of the Ready / Armstrong Roads intersection; and in the northwest corner of the Township along Telegraph Road.

# Quarry/Former Landfill

Approximately 3.5% (605 acres) of the Township's total land area is occupied by land that is utilized for a quarry or landfill. The Stone Co. Quarry (formerly the Rockwood and Thompson McCully Quarries) and the former Allied Waste Industries landfill are located in the southeastern portion of the Township near Pointe Mouillee Recreation Area.

### **Institutional**

The amount of land occupied by schools, municipal buildings, and religious institutions contain approximately 86 acres of land. The Township owns twenty (20) acres of institutionally designated land, purchased for new Township facilities.

# Recreation / Open Space

Land uses in this category include: parks, recreation areas, large open space, public and private golf courses and other similar uses. The recreation and open space land use category currently comprises approximately 2,070 acres or over 11% of the Township's total land area.

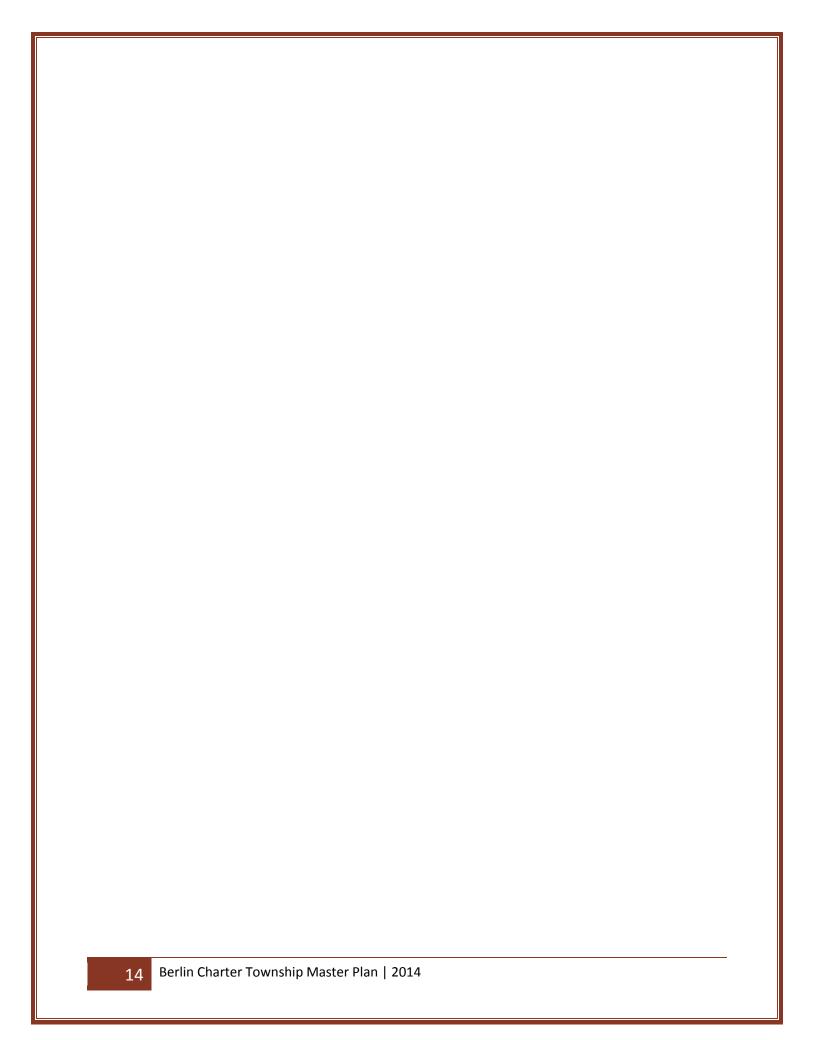
Pt. Mouille Recreational Area represents the largest recreational/open space area in the Township with approximately 2,000 acres. It encompasses the entire eastern shoreline or Township boundary and juts into Lake Erie due to dredging deposits. Another large open space area is located on the south side of the Huron River. This area is owned by the Huron-Clinton Metropolitan Authority (HCMA), but the property is not accessible to the public due to the single-family residential properties that abut it.



In addition, a golf course is located in the central part of the Township in the northeast corner of Armstrong and Newport Road intersection, and two (2) small parks are located west of Brandon Road. Reclamation areas around existing quarry sites have the potential to be converted for recreational areas in the future.

## **Waterfront Marina**

One (1) waterfront marina property containing 2.77 acres of land is found in the northeast corner of the Township along the Huron River surrounded by Manufactured Housing Park to the south and Brownstown Township to the north.



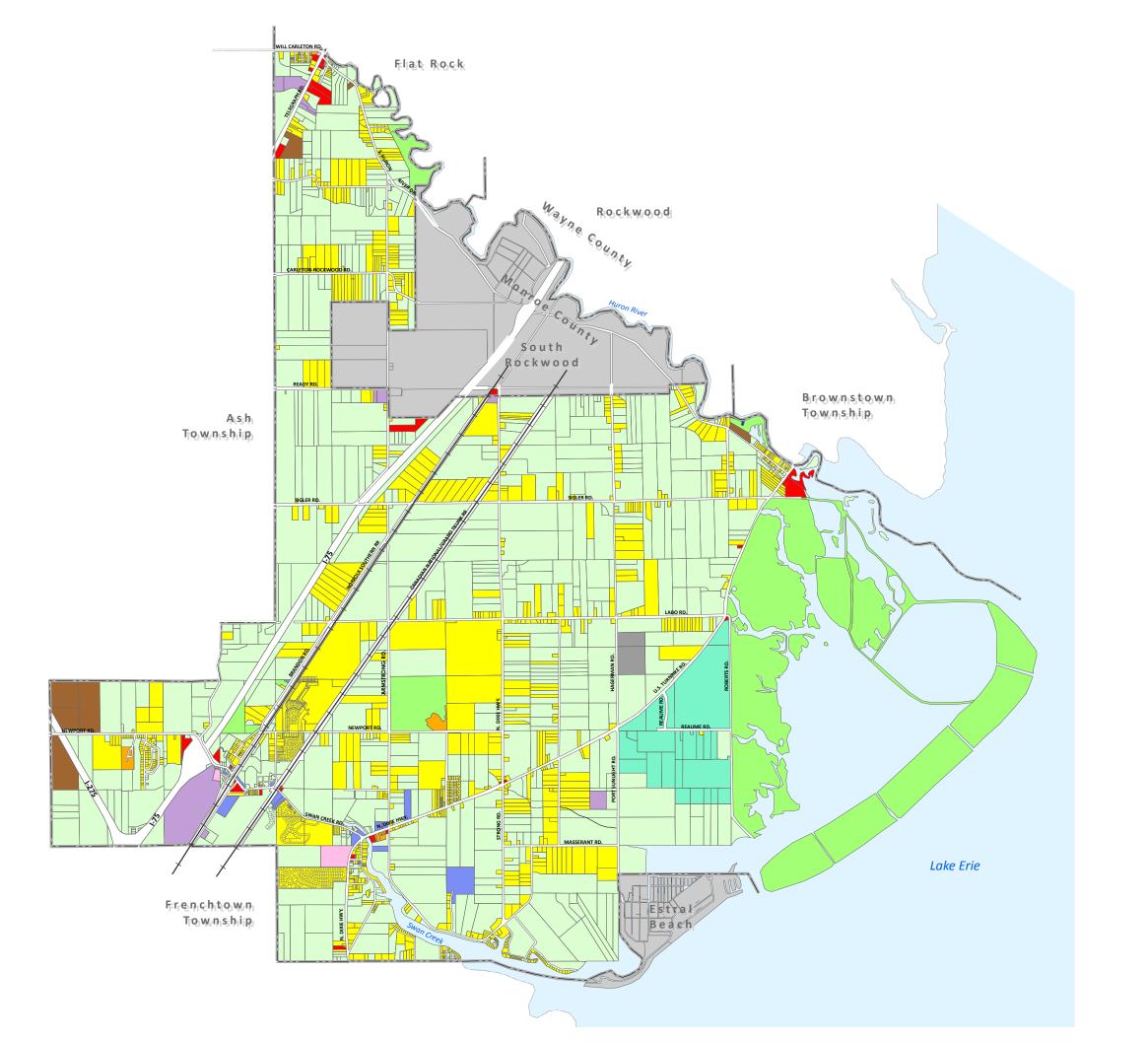




Figure 3

# **EXISTING LAND USE**

# Berlin Charter Township Monroe County





Basemap Data Source: Monroe County Planning

9-17-14
Carlisle/Wortman Associates, Inc.
Ann Arbor, Michigan

# Community Goals and Objectives

### Overview

A key component of the Berlin Master Plan is the articulation of a vision for the Township's future growth and the formulation of community goals which reflect the community's desires regarding how to respond to future development.

The goals of the community attempt to balance the various interests and ensure that each development decision is consistent with the overall vision for the Township. They help articulate preferred development patterns and outline development strategies for the Township.

## **Public Participation**

On September 30, 2013, the Berlin Planning Commission conducted a Planning Fair for the purpose of inviting resident involvement in the Master Planning process. The session was advertised via the *Township Bugle* and an article in the *Monroe Evening News*.

Participants at the Planning Fair were encouraged to visit five (5) stations representing specific discussion topics which included:

- Residential Development
- Economic Development
- Farmland Preservation
- Community Facilities + Services
- Overall Township

At each station, facilitators took down resident comments regarding important issues they felt should be addressed. A listing of key features and topics of discussion were provided at each station to aid both facilitators and participants in their dialogue. Generally, the topics which prompted the most discussion among participants included:

- Intergovernmental cooperation / services sharing
- Residential development including senior co-op apartments
- Farmland Preservation
- Promotion of office type businesses

The goals and objectives of the Master Plan were formulated through a collaborative effort of the Planning Commission and public comment. Goals are general statements that guide the direction and character of future development. Objectives set forth a framework for action and form the basis upon which more detailed development decisions may be made. Adoption of policies does not commit Berlin to any particular recommendation, but, rather provides guidance as to actions consistent with policy guidelines.

# **Berlin Township Goals**

The following statements reflect the primary goals of Berlin:

- Maintain the rural character and preserve the local characteristics of Berlin including a viable, stable agricultural industry by encouraging the retention and preservation of farmland and agricultural production as well as the preservation of general open space in the undeveloped areas of the Township.
- Systematically preserve open spaces and greenways to maintain the quality of life in Berlin, to preserve critical environmental areas, and to maintain rural character.
- Guide residential development in a manner which will create, preserve and enhance a quality living environment for existing and future Township residents.
- Encourage development of a mix of commercial, office, service and multiplefamily residential uses in specific locations that are suited for these uses.
- Promote quality, job producing economic development within the Township that serves the needs of the Township residents.
- Provide a variety of safe, efficient modes of transportation to meet the needs of Township residents and visitors.
- Provide timely, efficient and quality governmental services to Township residents.

# Agriculture / Open Space

GOAL: Maintain the rural character and preserve the local characteristics of Berlin including a viable, stable agricultural industry by encouraging the retention and preservation of farmland and agricultural production as well as the preservation of general open space in the undeveloped areas of the Township.

### **OBJECTIVES:**

- (1) Guide development to foster the responsible use of land, preserve farmland and natural features, and to make the best use of existing public services, utilities and infrastructure.
- (2) Direct non-agricultural uses away from areas of the Township ideally situated and conditioned for agriculture.
- (3) Encourage and support open space and agricultural operations through preservation programs, such as P.A. 116 (Farmland Preservation), Purchase of Development Rights (PDR), Conservation Easements, or other means to maintain the viability of agriculture and open space in the community.
- (4) Maintain and promote active farmland by supporting and developing new markets for agricultural products.
- (5) In order to preserve agriculture and open space, residential development is strongly encouraged to take a form where residential lots can be clustered to allow continued agriculture and open space on the remainder of the acreage.



# **Natural Resources**

GOAL 1: Systematically preserve open spaces and greenways to maintain the quality of life in Berlin, to preserve critical environmental areas, and to maintain rural character.



### **OBJECTIVES:**

- (1) Guide development to foster the responsible use of land, preserve farmland and natural features, and make best use of existing public services, utilities, and infrastructure.
- (2) Protect the water quality of the Township's water systems particularly Swan Creek, the Huron River and Lake Erie.
- (3) Consider the impact of all proposed development(s) on the waterways, wetlands, woodlands, other natural resource areas, and groundwater recharge areas.
- GOAL 2: Protect the Township's natural resources from contamination and development where practicable.

### **OBJECTIVES:**

- (1) Promote wide use of natural resources and preservation of wooded areas, groundwater re-charge areas, roadside trees, wetlands, scenic views, farmlands, and unique wildlife and bird habitats, which is a high planning priority that serves as the basis for all other planning and development goals and policies.
- (2) Take all reasonable steps to prevent surface and ground water pollution, contamination of the soils, air pollution, and noise pollution. Toward this end, consider adopting up-to-date performance and environmental standards and implement them throughout the Township.
- (3) Continue to cooperate with federal, state, and county agencies for the purpose of enforcing environmental regulations that are under the jurisdiction of outside agencies, such as wetlands and soil erosion control regulations.
- (4) Discourage development in areas with a high water table known to be flood-prone in order to reduce leachate from on-site waste disposal systems.

GOAL 3: Recognize that the Township is prone to flooding due to its location relative to Swan Creek, Huron River, and Lake Erie. All attempts to minimize flooding due to developing in flood plains shall be taken.

### **OBJECTIVES:**

- (1) Restrict development in flood plains and flood prone areas to the extent possible and practicable by law.
- (2) Preserve flood plains in their natural state to be used for recreational purposes, scenic beauty, and to prevent additional flooding downstream.
- **GOAL 4:** Preserve Natural Features such as Wetlands and Woodlands
  OBJECTIVE:
  - (1) Develop a natural features ordinance for wetlands and woodlands protection.
- GOAL 5: Recognize that the Township is located in Severe Wind Zone IV (capable of exceeding winds of 250 mph).

### **OBJECTIVE:**

(1) Encourage the development of adequate severe weather shelters for different types of residential houses.

## Residential

GOAL: Guide residential
development in a manner
which will create, preserve
and enhance a quality
living environment for
existing and future
Township residents.

### **OBJECTIVES:**

(1) Guide development to foster the responsible use of land, preserve farmland and natural features, and make best use of



- existing public services, utilities, and infrastructure.
- (2) Provide diversity in housing opportunities while retaining an attractive rural character.
- (3) Strongly encourage clustered development options to preserve open space and retain the Township's rural character.
- (4) Encourage well-planned, safe and walkable residential neighborhoods.
- (5) Limit residential development in areas where conditions are least capable of supporting development. Consider each development based upon the suitability of soils, impact on woodlands, wetlands, floodplains, water bodies and infrastructure capacity (roads and utilities).
- (6) Higher density residential development should be limited to area serviced by municipal utilities.
- (7) Develop architectural standards for the Newport "settlement".
- (8) Encourage the development of abandoned quarry land into high-quality residential developments, which promote open space.
- (9) Analyze and inventory existing manufactured housing developments in and around the Township to better defend a conservative manufactured housing park policy.

## Commercial

GOAL 1: Emphasize neighborhood commercial over general commercial in most areas of the Township (other than the Telegraph Road corridor and south of South Rockwood, adjacent to I-75).

### **OBJECTIVE:**

- (1) Create zoning incentives for local commercial over general commercial thereby reducing trip length and even promoting walking.
- GOAL 2: Create desirable commercial centers based on traditional urban design standards that are centrally located and accessible to residential developments. Prevent suburban style strip development.

### **OBJECTIVES:**

- (1) Promote residential growth and development along Newport Road and environs.
- (2) Adopt commercial design standards.
- **GOAL 3:** Promote family-oriented businesses that serve the residents of the Township.

### **OBJECTIVES:**

- (1) Provide adequate land designated for general commercial uses that would encourage commercial enterprises that serve families such as high-quality family restaurants and activity centers (ice and skating rinks, bowling alleys, etc.).
- (2) Restrict adult oriented businesses to locations that do not negatively impact or cause a nuisance to residential districts and similar uses such as places of worship, schools, and institutions.
- GOAL 4: Encourage professional office developments in the Township to serve the day to day needs of the community.

### **Industrial**

**GOAL 1:** Concentrate industrial uses south of Newport Settlement and to the north, just south of South Rockwood.

### **OBJECTIVE:**

- (1) Encourage appropriate development of vacant and underutilized land parcels within industrial districts.
- GOAL 2: Maintain and enhance the Township's industrial uses in a way that is consistent with community values, compatible with surrounding land uses, and preserves and augments the Township's tax base.

### **OBJECTIVES:**

(1) Require buffering, building, setbacks, screening, outside storage controls, and control of effluents to minimize off-site impacts, particularly on adjacent residential areas.

- (2) Apply high standards for site improvements or redevelopment, assuring adequate parking, loading and unloading areas, landscaping, and controlled signs
- (3) Promote high-quality industrial park developments, upgrade access and infrastructure.
- GOAL 3: Encourage high quality Industrial Park/Distribution Center developments.

# **Transportation**

GOAL 1: Maintain a safe, efficient vehicular and pedestrian transportation network which minimizes conflicts among transportation users, promotes



accessibility throughout the community, and accommodates the circulation needs of the Township residents.

### **OBJECTIVES:**

- (1) Improve the overall quality of public rights-of-way with paving, lighting, sidewalks, landscaping and controlled public and private signs.
- (2) Prepare corridor plans for main thoroughfares to address access management problems as well as to improve the appearance of the corridor.
- (3) Reduce the number of site access to drives along major roadways by encouraging the use of common entrances and shared parking facilities.
- (4) Utilize pedestrian walkways, where possible, to link various land use types such as residential areas to neighborhood commercial development, parks, and community activity centers.
- (5) Carefully use the site plan provisions of the zoning ordinance during the review of the development plans to assure minimum traffic conflicts, adequate parking and loading areas, adequate on-site pedestrian circulation and proper signage.
- (6) Require Planning Commission approval of all public rights-of-way projects for compliance with Comprehensive Development Plan objectives: use and

- safety of young children and elderly citizens, and impact on the Township's image.
- (7) Study traffic routes to determine the negative effects on lower intensity land uses (i.e. residential and institutional) and designate truck routes/corridors if needed.

# General / Township Wide

**GOAL 1:** Reduce the existing resident's burden of paying for services intended to serve new developments.

### **OBJECTIVES:**

- (1) Development of appropriate use fees to help off-set cost associated with municipal water and waste treatment.
- (2) Determine the best use of land in terms of cost and benefits to the public and tax revenues.
- **GOAL 2:** Encourage all airports to comply FAA/Michigan Aeronautics requirements.

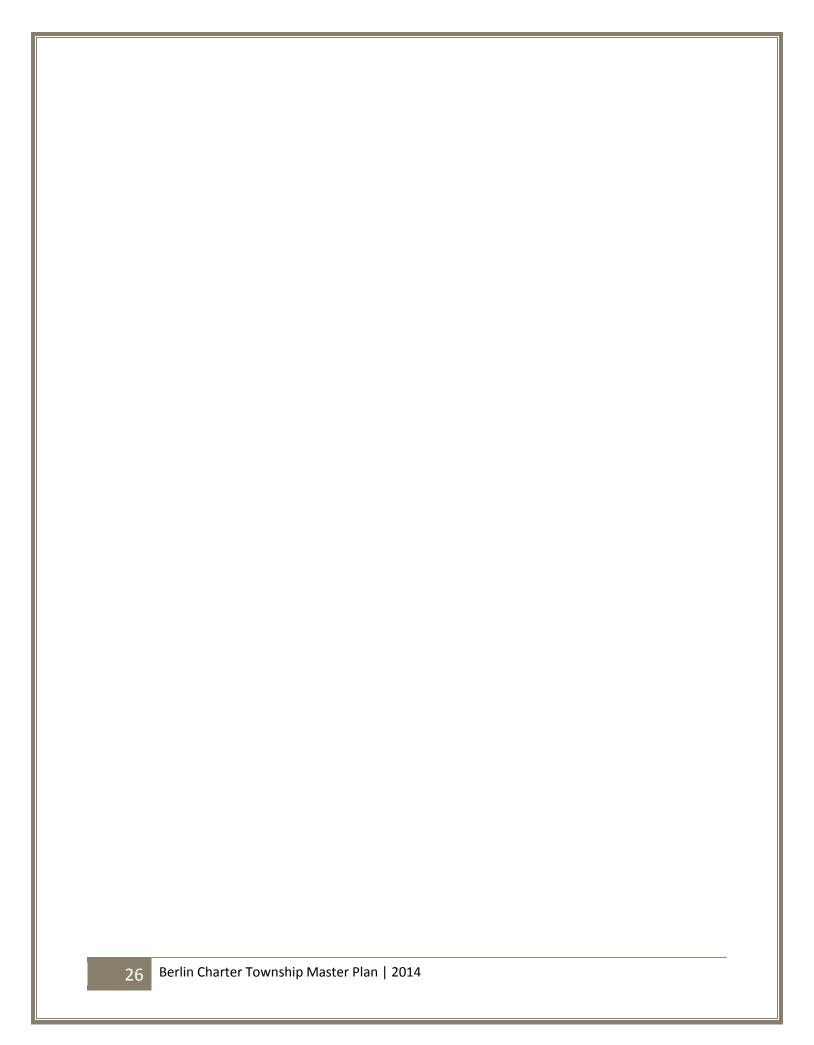
### **OBJECTIVES:**

- (1) Identify all private airfields located in the Township.
- (2) Discourage more than three private airfields as the Township's population continues to grow.









# Future Land Use

### Overview

The Future Land Use Plan defines the framework for the future growth of the Township. It begins with a general description of the desired pattern of development for the community and follows with a description of the future land use categories as illustrated on the future land use map (Figure 4).

# **Future Land Use Concept**

The Future Land Use Map expands on the pattern that has been created incrementally over a period of several decades. Intensive development is designated in the southwest section of the Township where municipal water and sanitary sewer is available or nearby. Newport Settlement lies in the center of this area and serves a commercial node to the surrounding high and medium density residential areas.

The main commercial developments are planned in three compact districts: Newport Settlement; the area between the Conrail and Grand Trunk Railroad adjacent to South Rockwood; and along the Telegraph Road corridor. Smaller commercial areas are planned, along U.S. Turnpike/North Dixie Highway, as well to serve the residents that are in the vicinity. The Township's prime industrial district is planned between the Conrail and Grand Trunk Railroads, north of Labo Road.

The remainder and the vast majority of the Township is dedicated to agricultural, rural estates, and residential development, with single-family residential being the predominant land use category. Six residential classifications of varying density are shown on the Future Land Use Map.

# **Future Land Use Categories**

Specific land use categories are identified and illustrated on the future land use map (Figure 4). The following identifies the intent of each category, describes the desirable land uses and elements, the land use relationship with physical and natural features, and lists the corresponding zoning districts.

## Agriculture Land Use

*Intent:* The intent of this category is to protect existing agricultural land uses, maintain rural character, minimize population density, and preserve open spaces. Accordingly, the Agricultural land use designation is intended to allow low density residential development only when it promotes open space preservation and is compatible with maintaining existing agricultural operations.

Description: Agricultural areas are those lands characterized as primary crop and/or livestock production lands. These lands should not be considered land banks for future development. In this area, the focus shall be on open space preservation and any future residential development shall cluster residential units on the most suitable portions of the site, with remaining areas permanently dedicated as open space. The clusters of residences are intended to be small and integrated into significant amounts (at least 50% of the site) of open space.

Relationship to Physical and Natural Features: The Agricultural land use category is located in areas where public utilities are not present and soil suitability for septic systems may be poor. Thus, these factors put limitation on the potential density of development. Wetlands, woodlots, and environmentally sensitive areas are intended to be preserved. The Agricultural designation will help preserve woodlands, wetlands, large and small scale agricultural operations, and wildlife habitat. To ensure appropriate use of these areas, it is recommended that an Environmental Impact Assessment (or similar environmental land use analysis) be completed to minimize negative development impacts.

*Most Compatible Uses:* Desirable land uses and elements of the Agricultural designation include:

- Farming operations, and similar uses of land;
- Low density, clustered single-family residential development where a minimum of fifty percent (50%) of buildable area is permanently preserved as dedicated open space;
- Single-family dwellings on parcels five (5) acres in size or larger;
- Landscape features such as orchards, outbuildings such as silos and barns, fences, and sound farm structures; and
- Scenic views consisting of natural features.

Most Compatible Zoning Districts: Based on the above criteria, the zoning district most appropriate for the Agricultural category is the AG, Agricultural District.

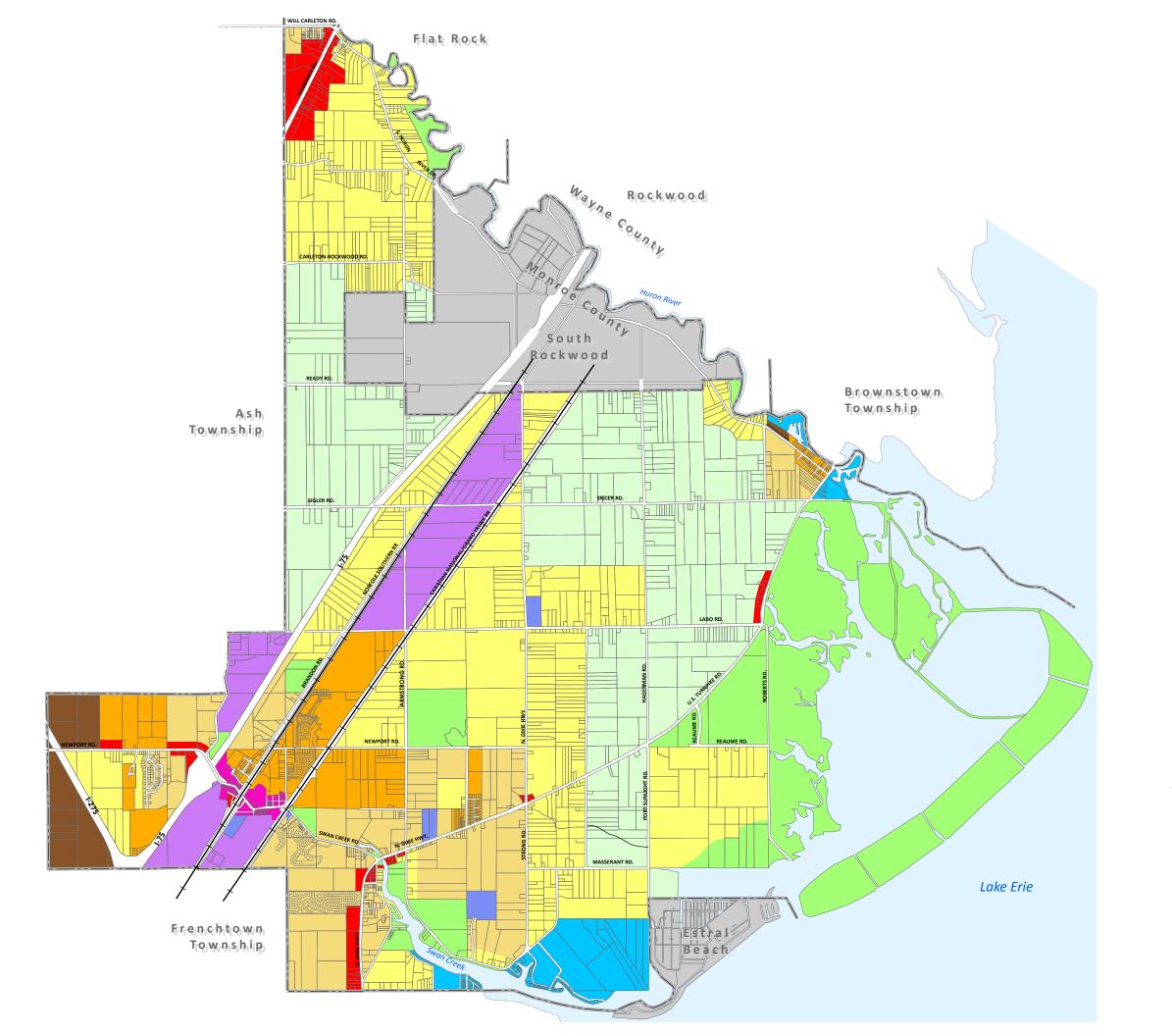


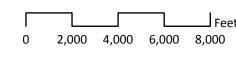


Figure 4

# **FUTURE LAND USE**

# Berlin Charter Township Monroe County





Basemap Data Source: Monroe County Planning

9-17-14
Carlisle/Wortman Associates, Inc.
Ann Arbor, Michigan

### Low Density Residential Land Use

*Intent:* The intent of this designation is to accommodate low density single-family residential housing in areas not intended to be serviced with sanitary sewer and water services. This category is designed to preserve a predominately rural character, including agricultural operations.

*Description:* Land designated as Low Density Residential includes areas where soils are generally suitable for septic field and building construction. Maximum density will be one (1) dwelling unit per two (2) acres.

Relationship of Physical and Natural Features: Significant natural features may still be present within this category. Residential developments shall cluster residential units on the most suitable portions of a site with the remaining area permanently dedicated as open space.

*Most Compatible Uses:* desirable land uses and elements of the Low Density Residential designation are:

- Agricultural operations;
- Single-family residences in either clustered or conventional subdivision/site condominium development; and
- Parks, open spaces, and conservation areas.

Most Compatible Zoning Districts: Based on the criteria mentioned above, the zoning district most appropriate for the Low Density Residential future land use category is the R-1, Single-Family Residential zoning district.

### Medium Density Residential Land Use

Intent: The intent of this designation is to promote a moderate density single-family category with a predominately suburban character. This is achieved by accommodating medium density single-family residential housing in areas of the Township that may be served with municipal sanitary sewer services or are in close proximity to such services.

Description: Land designated as Medium Density Residential Land Use includes residential densities ranging from 1 to 4



dwelling units per acre, depending on the availability of municipal sewer services. Where municipal sewer facilities are not available, a maximum of 1 unit per acre shall be permitted.

Where sewer service is not currently available, expansion shall only occur in accordance with the Township's Municipal Service Expansion Policy as described in this Master Plan. Further, it is the policy of this plan that no areas of the Township be brought into the Township sewer service area prior to a formal sewer expansion policy and procedure being developed by the Township Board.

In order to utilize existing capacity of the municipal sewer system and to limit the possibility of higher density residential developments leapfrogging the current sewer service boundary. It is the intention to limit residential density to four (4) dwelling units per acre only to those areas served by municipal sewer service. Property to be served by privately owned community sewage systems shall be limited to one (1) dwelling unit per acre in the Medium Density Residential land use category.

Relationship to Physical and Natural Features: Significant natural features may still be present within this category, but to a lesser degree than the Agriculture or Low Density Residential categories. Land designated as Medium Density Residential has access to collector roads and internal subdivision paved roads.

*Most Compatible Zoning Districts:* Desirable land uses and elements of the Medium Density Residential designation are:

- Single-family residences in either clustered or conventional subdivision/site condominium development;
- Two-family dwellings; and
- Parks, open spaces and conservation areas.

Most Compatible Zoning Districts: The Medium Density Residential land use category coincides with the R-2, Single-Family Residential and R-3, Single-Family Residential zoning districts.

# High Density Residential Land Use

*Intent:* the intent of this category is to create areas for higher density residential development in those areas fully serviced by public sanitary sewer facilities.

*Description:* Planned High Density Residential land uses are found primarily in the southwest portion of the Township where municipal sanitary sewer is available.

The Township encourages and supports innovative housing such as attached and cluster developments that preserve open space and protect natural features. Density may range between 6 to 14 dwelling units per acre. However, greater densities may be allowed in cases showing exceptional design and conservation.

Relationship to Physical and Natural Features: As mentioned above, this area of the Township is either serviced or adjacent to municipal sanitary sewer facilities, and constitutes the area of the Township with the greatest development potential.

*Most Compatible Uses:* Desirable land uses and elements of the High Density Residential category include:

- Single-family residences, attached and detached;
- Two-family dwellings;
- · Apartments;
- Innovative housing projects, including senior and assisted living options;
- Parks, open spaces, and conservation areas; and
- Community support facilities such as churches, schools, and public buildings.

Most Compatible Zoning Districts: The High Density Residential land use category would coincide with the RM-1 and RM-2, Multiple-Family Residential zoning district.

#### Waterfront Development Land Use

*Intent:* The intent of the Waterfront Development future land use category is to offer flexibility in the development of these designated areas in exchange for high-quality, mixed-use development which promotes the use of water-related activities and businesses.

Description: Areas designated for Waterfront Development are located in the southeast corner of the Township adjacent to Swan Creek and the northeast portion of the Township adjacent to the Huron River. Use types and residential density of these development areas will be considered on a case-by-case basis.

Relationship to Physical and Natural Features: These areas are environmentally sensitive due to the location of Swan Creek, the Huron River and Lake Erie in such close proximity to these development areas.

*Most Compatible Uses:* Desirable land uses and elements of the Waterfront Development category include:

- Single-family residences, attached and detached;
- Parks, open spaces, and conservation areas;
- Boating facilities;

- Retail business related to marina activities;
- Restaurants; and
- · Hotels/motels.

Most Compatible Zoning Districts: The Waterfront Development land use category coincides with the Waterfront Marina zoning district. Currently, the Waterfront Marina zoning district does not allow for the development of single-family residences. The Township should consider modifying the Waterfront Marina ordinance language to include single-family attached and detached dwellings in this zoning district.

### Manufactured Housing Park Land Use

*Intent:* The intent of the Manufactured Housing Park category is to allow manufactured home park development in suitable areas of the Township adequately serviced by essential public services, such as: public sanitary sewer facilities and police and fire protection.

*Description:* The Manufactured Housing Park designation is focused on the southwest portion of the Township adjacent to Newport Road and I-275 where essential services are provided.

Relationship to Physical and Natural Features: As mentioned above, this area is served or is adjacent to available utilities.

*Most Compatible Uses:* Desirable land uses and elements of the Manufactured Home Park designation include:

Mobile home dwellings

Most Compatible Zoning Districts: The Manufactured Home park land use category coincides with the MH, Mobile Home zoning district classification.

#### Mixed Use Land Use

Intent: The intent of the Mixed Use designation is to encourage and permit mixed uses utilizing the existing smaller lots and built environment of the "settlement"



area. Future growth within the area is intended to be flexible in land uses, but meet specific form and design guidelines that will be required through modifications to the Township Zoning Ordinance.

Description: The Mixed Use designation is focused on the "settlement" area (Swan Creek Road between I-75 and Canadian National Grand Trunk Railroad).

Relationship to Physical and Natural Features: This is the most developed area of the Township; however, due to the vicinity of Swan Creek, there are wetland areas found in this area.

Most Compatible Land Uses: Desirable land uses and elements within the Mixed Use category area include:

- Mixed-use development;
- · Neighborhood commercial uses;
- Service uses;
- Office uses;
- Single-family residences;
- Two-family dwellings;
- Multiple-family dwellings;
- Innovative housing projects;
- Parks, open spaces and conservation areas; and
- Community support facilities such as churches, schools, and public buildings.

Most Compatible Zoning Districts: There is no compatible zoning district to accommodate the intent and description provided above. The Township should consider the development of a new Mixed Use zoning district to address this Master Plan designation. The Mixed Use zoning district may include form-based code ideas and concepts.

#### Commercial Land Use

*Intent:* The intent of the Commercial designation is to provide locations for commercial uses to service Township residents.

Description: Commercial designated areas are located along Telegraph Road, Swan Creek Road (west of "settlement" area), and U.S. Turnpike Road. The amount of land designated for commercial development is anticipated to meet the amount of commercial activity needed to serve the future Township population.

Relationship to Physical and Natural Features: The majority of these areas planned for commercial development are serviced by municipal sanitary sewer, and is suitable for commercial development.

*Most Compatible Land Uses:* Desirable land uses and elements in the Commercial land use category include:

- Retail and service businesses;
- Specialty shops;
- Office uses;
- Restaurants;
- Financial Institutions; and
- Community support facilities such as churches, schools, and public buildings.

*Most Compatible Zoning Districts:* The Commercial land use classification coincides with the B-1, Local Business and B-2, General Business zoning districts.

#### Industrial Land Use

*Intent:* The intent of the industrial designation is to provide locations for industrial operations that may have moderate effects on adjacent properties because of noise, odor, traffic, and storage of materials. Uses are categorized as needing larger tracts of land and outdoor storage of materials and equipment.

Description: due to potentially negative external impacts, the Industrial designation is limited in scope. Any areas planned for the Industrial land use designation that are contiguous with residential uses are encouraged to be planned with less intensive uses and/or buffering bordering such residential uses. Industrial designations are not compatible and shall not be planned for areas of known ground water recharge and near Township wellhead protection zones.

Relationship to Physical and Natural Features: Municipal sanitary sewer shall be available in areas planned for industrial uses. Areas planned for this designation encompass both existing and future industrial uses and vacant land in proximity to both the Norfolk and Canadian National/Grand Trunk railroads and I-75. Where parcels abut I-75, extensive buffers shall be provided to help provide a more natural appearance along the freeway for passing motorists.

Most Compatible Uses: Desirable land uses and elements of the Industrial category are:

- Manufacturing, processing, packaging or assembling uses; and
- · Trucking and cartage facilities.

Most Compatible Zoning Districts: The Industrial land use category coincides with the I-1, Light Industrial and 1-2, Heavy Industrial zoning districts.

#### Recreation/Open Space Land Use

Intent: Land designated as Recreation/Open Space is intended to provide areas for an open space system that preserves and enhances significant natural features including floodplains, woodlands, and wetland areas as well as providing recreation opportunities and an appropriate use of the land.



Description: This category is intended to protect and preserve the unique Township natural resources while broadening recreational opportunities and an appropriate use of the land.

Relationship to Physical and Natural Features: Land in this use category generally includes environmentally sensitive areas where natural features need to be protected and other areas that present opportunities for the development of recreation facilities.

*Most Compatible Uses:* Desirable land uses and elements of the Recreation/Open Space category are:

- Public or private conservation area; and
- Active and passive recreational facilities.

Most Compatible Zoning Districts: Based on the criteria mentioned above, there is no compatible zoning district to accommodate the intent and description provided above. The Township should consider the development of a new Recreation/Open Space zoning district to address this Master Plan designation.

The table below demonstrates the zoning district classifications that coincide with each of the Master Plan Future Land Use designations.



Table 2. Master Plan Land Use Classifications / Zoning District Comparison

Master Plan Land Use Designations	Zoning District Classification
Recreation/Open Space	Township to consider new district regulations
Agriculture	AG, Agricultural District
Low Density Residential	AG, Agricultural District
Medium Density Residential	R-1, R-2, R-3, Single-Family Residential Districts
High Density Residential	RM-1, RM-2, Multiple-Family Residential Districts
Waterfront Development	WM, Waterfront Marina – Township to consider revisions.
Manufactured Home Park	MH, Mobile Home Park
Mixed Land	Township to consider new district regulations
Commercial	B-1, Local Business and B-2, General Business
Industrial	I-1, Light Industrial and I-2, Heavy Industrial

# Implementation

The Master Plan is essentially a statement of goals and objectives designed to accommodate future growth and redevelopment. As stated in the introduction of this document, the Master Plan is the only officially adopted document that sets forth an agenda for the achievement of goals and policies. It helps develop a balance of orderly change in a deliberate and controlled manner that permits controlled growth. As such, it provides the basis upon which zoning and land use decisions are made.

The Plan forms the philosophical basis for the more technical and specific implementation measures. It must be recognized that development and change will occur either with or without planning, and that the Plan will have little effect upon future development unless adequate implementation programs are established. This section identifies actions and programs that will be useful if the Plan is to be followed.

A variety of programs or administrative tools are available to allow the Plan to succeed. This is discussed below.

### **Zoning Requirements**

Zoning is the development control that has been most closely associated with planning. Originally, zoning was intended to inhibit nuisances and protect property values. However, zoning should also serve additional purposes that include:

- Promote orderly growth in a manner consistent with land use policies and the Master Plan;
- Promote attractiveness in the Township's physical (built) environment by providing variation in lot sizes, architectural features and appropriate land uses;
- Accommodate special, complex or unique uses through mechanisms such as planned unit developments, overlay districts, or special land use permits – specifically within Mixed Use and industrial districts in order to allow complimentary uses;
- Guide development away from conflicting land uses (i.e., industrial uses adjacent to residential areas); and

• Preserve and protect existing land uses and significant natural features in accordance with the Master Plan.

The Zoning Ordinance and Future Land Use Map in themselves should not be considered as the major long range planning policy of the Township. Rather, the Master Plan should be regarded as a statement of planning policy, and zoning should be used to assist in implementing that policy.

### **Zoning Adjustments**

Zoning Adjustments for Master Plan Implementation:

- Consider implementing a Mixed Use overlay district and/or form-based code allowing for increased density within the "settlement" area, including potential residential uses.
- Consider allowing residential uses as part of the Waterfront Marina zoning district when considered part of a mixed-use development utilizing Planned Unit Development guidelines.
- Review the Agricultural zoning district in relation to accessory uses that
  promote the continued use of the land in an agricultural manner. This may
  allow accessory commercial land uses within the Agricultural District
  including tours, bed and breakfast establishments, and seasonal family
  events. The sale of locally grown products should be encouraged both on
  and off-site.
- Review all existing zoning district classifications as they relate to permitted and special land uses, as well as, lot dimensions and setback requirements.
   There may be alternatives to streamline the current district standards to combine and/or eliminate similar zoning district classifications.
- Address the goals and recommendations of the 2010 Parks and Recreation Plan.

# **Policy Initiatives**

Policy Initiatives for Master Plan Implementation:

 Continue to look for ways to cooperate and coordinate services between governmental units.

- Continue to work with property owners to preserve farmland, open space and significant natural features in order to maintain the Township's rural character.
- Develop a Township-wide, non-motorized network to provide opportunities for pedestrian activity such as walking, jogging and bicycling.
- Establishment of an Urban Service Boundary depicting the area of the Township intended to be serviced by public utilities, and guidelines for further expansion of services outside of the boundary area.
- Implement a Capital Improvement Program (CIP). A CIP coordinates planning, financial capacity and physical development, and is used as a management tool for the budget and planning processes.

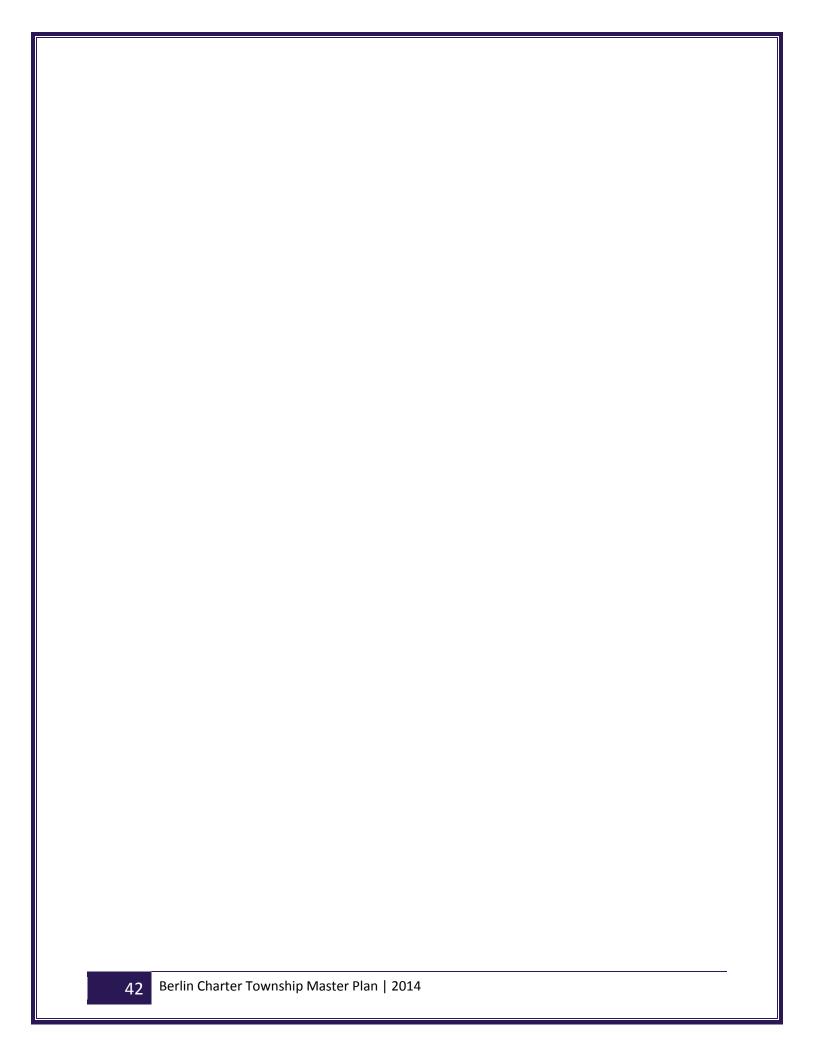
#### Plan Education

Citizen involvement and support will be necessary as the Plan is implemented. Local officials should constantly strive to develop procedures that make citizens more aware of the planning and zoning process and the day-to-day decision making which affects implementation of the Plan. A continuous program of discussion, education, and participation will be extremely important as the Township moves toward realization of the goals and objectives contained within the Master Plan.

# Plan Updates

The Plan should not become a static document. The Township Planning Commission should attempt to re-evaluate and update portions of it on a periodic basis. In accordance with Michigan Public Act 33 of 2008, as amended, the Township is required to review the Plan every five (5) years to determine whether to commence the procedure to amend or adopt a new Plan.

However, the Planning Commission should set goals for the review of various sections of this Plan on a yearly basis. The Master Plan should also be coordinated with the Township Parks and Recreation Plan to provide proper long-range planning for parks and recreation improvements.



# Background Studies

#### **Population**

Between 1990 and 2000, Berlin increased 518 (11.1%) residents to a total population of 5,153; and increased another 2,053 (39.8%) persons to total 7,206 in 2010. Southeastern Michigan Council of Governments (SEMCOG) has projected Berlin's population to continue to increase through 2040. In the year 2040, SEMCOG has forecasted that the population of Berlin will reach 8,624.

The reasons for the Township's population increase includes the continual out migration of people from urban core areas, such as Monroe and cities located in lower Wayne County, and potential new housing starts. As shown in Table 3, the Township is projected to grow significantly more than Monroe County and the Southeast Michigan region when comparing population change percentages.

**Table 3. –** *Population Comparison + Forecast* 

Governmental Unit	1990	2000	12010	# Change 2000-2010	% Change 2000-2010	2040 Forecast
Berlin Charter Township	4,635	5,153	7,206	2,053	39.8%	8,624
Village of Estral Beach	430	486	418	-60	-14.0%	446
Village of South Rockwood	1,221	1,284	1,675	391	30.5%	1,953
Ash Township	4,710	5,048	5,438	390	7.7%	5,902
Brownstown Township	18,811	22,989	30,627	7,638	33.2%	32,124
City of Flat Rock (Wayne County)	7,290	8,488	9,878	1,390	16.4%	9,702
Frenchtown Township	18,225	20,777	20,428	-349	-1.7%	23,633
Huron Township (Wayne County)	10,447	13,737	15,879	2,142	15.6%	14,884
City of Rockwood (Wayne County)	3,141	3,442	3,289	-153	-4.4%	3,246
Monroe County	133,600	145,945	152,021	6,076	4.2%	164,025
Southeast Michigan	4,590,468	4,833,493	4,704,743	-128,750	-2.7%	4,742,083

Source: U.S. Census; SEMCOG 2040 Forecast, 2013

According to SEMCOG, Berlin saw the bulk of its growth between 2000 and 2010 with the population increasing approximately 40%. Population projections depict minimal increases through 2040. By 2040, Berlin's population is forecasted to be 8,624, which is a 20% increase from the 2010 population. This averages to a forecasted growth rate of approximately 6% population growth per decade through 2040.

#### Households

In addition to new population due to migration, the overall population can be shaped through changes in household size and composition. Throughout the country, household sizes are decreasing, which is related to the number of aging baby boomers and smaller family sizes.

A household, as defined by the U.S. Census, is all persons who occupy a housing unit. The occupants may be a single family, one person living alone, two or more families living together or any other group of related or unrelated persons who share living arrangements.

As demonstrated in Table 4, Berlin's households increased approximately 37% to 2,575 between 2000 and 2010. This is the greatest rate of growth of the surrounding communities. Further, Berlin was the only community who demonstrated a growth in average household size. The average household size in 2000 was 2.74 persons and increased to 2.8 persons in 2010 (Table 5).

Table 4. – Total Households by Community

Governmental Unit	2000	2010	# Change 2000-2010	% Change 2000-2010
Berlin Charter Township	1,882	2,575	693	36.8%
Village of Estral Beach	179	183	4	2.2%
Village of South Rockwood	450	687	237	52.7%
Ash Township	1,803	2,050	247	13.7%
Brownstown Township	8,322	11,342	3,020	36.3%
City of Flat Rock (Wayne County)	3,181	3,754	573	18.0%
Frenchtown Township	7,733	7,958	225	2.9%
Huron Township (Wayne County)	4,745	5,781	1,036	21.8%
City of Rockwood (Wayne County)	1,318	1,295	23	-1.7%
Monroe County	53,772	58,230	4,458	8.3%
Southeast Michigan	1,845,218	1,844,758	-460	-0.02%

Source: SEMCOG, 2013

**Table 5. –** Average Household Size by Community

Governmental Unit	2000	2010		% Change 2000-2010
Berlin Charter Township	2.74	2.80	0.06	2.2%
Village of Estral Beach	2.69	2.28	-0.41	-15.2%
Village of South Rockwood	2.85	2.44	-0.41	-14.4%
Ash Township	2.80	2.65	-0.15	-5.4%
Brownstown Township	2.76	2.69	-0.07	-2.5%
City of Flat Rock (Wayne County)	2.66	2.62	-0.04	-1.5%
Frenchtown Township	2.65	2.53	-0.12	-4.5%
Huron Township (Wayne County)	2.88	2.73	-0.15	-5.2%
City of Rockwood (Wayne County)	2.60	2.52	-0.08	-3.1%
Monroe County	2.69	2.59	-0.10	-3.7%
Southeast Michigan	2.58	2.51	-0.07	-2.7%

Source: SEMCOG, 2013

# Age

In comparison with the surrounding communities, Berlin has the second lowest median age at 37.1 years; Flat Rock has the lowest median age of 36.9 years. The Township is on average 3.7 years younger than the surrounding municipalities (excluding Flat Rock). In addition, 28% of the Township's population is between the ages of 25-44, and 30% of the population is 19 years old or younger. Generally it can be determined that a young population between the ages of 25-44 are in the family forming stage of their life, which could also mean increases in the potential for population growth in the near future.

Table 6. - Percent of Population by Age Group and Median Age, 2010

Age Group	Berlin	Estral Beach	South Rockwood	Ash	Brownstown	Flat Rock	Frenchtown	Huron	Rockwood
0-4	6.9%	7.9%	5.6%	4.2%	6.2%	7.1%	6.0%	6.0%	5.0%
5-9	7.6%	4.1%	5.5%	5.5%	7.8%	7.6%	5.9%	6.8%	6.0%
10-14	7.7%	6.9%	5.7%	7.1%	7.9%	8.0%	6.7%	7.6%	7.5%
15-19	7.8%	7.7%	6.3%	7.5%	7.2%	7.2%	7.6%	7.6%	6.9%
20-24	5.0%	4.5%	6.6%	5.6%	5.7%	5.9%	6.6%	5.7%	6.0%
25-29	5.3%	4.8%	9.6%	4.3%	5.2%	5.2%	6.0%	4.9%	4.6%
30-34	6.6%	3.3%	6.0%	4.5%	6.2%	5.9%	5.8%	5.7%	5.5%
35-39	7.3%	7.4%	4.2%	5.3%	8.1%	7.8%	6.4%	6.7%	6.6%
40-44	8.0%	7.4%	7.0%	6.7%	7.9%	7.7%	6.7%	7.8%	8.0%
45-49	8.3%	7.9%	2.6%	9.5%	7.7%	7.0%	7.9%	8.6%	8.0%
50-54	7.5%	8.9%	8.2%	9.9%	7.3%	7.8%	8.4%	8.5%	8.4%
55-59	6.6%	11.7%	8.5%	9.2%	7.1%	6.9%	7.0%	7.8%	8.7%
60-64	7.2%	7.9%	5.9%	7.1%	5.9%	5.4%	5.6%	6.2%	6.7%
65-69	3.3%	5.5%	4.0%	4.9%	3.5%	3.6%	4.1%	4.0%	4.0%
70-74	2.4%	3.3%	1.9%	3.5%	2.3%	2.5%	3.2%	2.7%	3.2%
75-79	1.6%	1.2%	2.2%	2.4%	1.4%	1.8%	2.2%	1.7%	2.1%
80-84	1.4%	1.4%	1.1%	1.7%	1.2%	1.5%	2.3%	1.2%	1.4%
85+	0.9%	2.2%	0.9%	1.0%	1.3%	1.1%	0.2%	0.8%	1.3%
Median Age	37.1	45.0	38.9	44.5	37.6	36.9	39.3	39.4	40.9

Source: SEMCOG, 2013

### Housing

The amount of housing stock has increased nearly 45% in Berlin in the last decade. The Village of South Rockwood is the only adjacent community with a higher rate of increase in housing stock, 58.2%. Both Berlin and South Rockwood rate of housing unit growth far exceeds the surrounding communities, see Table 7.

**Table 7. –** *Total Housing Units by Community* 

Governmental Unit	2000	2010	# Change 2000-2010	% Change 2000-2010
Berlin Charter Township	1,979	2,866	887	44.8%
Village of Estral Beach	211	220	9	4.3%
Village of South Rockwood	464	734	270	58.2%
Ash Township	1,881	2,159	278	14.8%
Brownstown Township	9,088	12,157	3,069	33.8%
City of Flat Rock (Wayne County)	3,291	3,995	704	21.4%
Frenchtown Township	8,244	8,780	536	6.5%
Huron Township (Wayne County)	4,888	6,103	1,215	24.9%
City of Rockwood (Wayne County)	1,353	1,387	34	2.5%
Monroe County	56,471	62,971	6,500	11.5%
Southeast Michigan	1,951,898	2,060,749	108,851	5.6%

Source: U.S. Census; SEMCOG 2040 Forecast, 2013

SEMCOG reported (via Berlin's Community Profile) that 80% of housing within the Township is owner-occupied. Of the remaining 20% of housing units, 10% are renter-occupied and 10% are vacant. Further, median housing value in 2010 decreased 14.4% from 2000 to \$166,900; whereas the median gross rent over the same period increased 8.8% to \$913.

# Income + Poverty

SEMCOG has provided statistics from the 5-Year American Community Survey (ACS) results as part of their Community Profile. The 5-Year ACS demonstrates that the median household income for Berlin is \$64,708 (in 2010 dollars). Table 8 compares the median income of Berlin and the surrounding jurisdictions.

Table 8. - *Median Income*, 2000 + 2010

Governmental Unit	2010
Berlin Charter Township	\$64,708
Village of Estral Beach	\$50,313
Village of South Rockwood	\$52,476
Ash Township	\$59,375
Brownstown Township	\$60,941
City of Flat Rock (Wayne County)	\$56,278
Frenchtown Township	\$52,111
Huron Township (Wayne County)	\$56,535
City of Rockwood (Wayne County)	\$52,926
Monroe County	\$55,366
Southeast Michigan	\$53,242

Source: U.S. Census; SEMCOG 2040 Forecast, 2013

In addition, Berlin has a lower percentage of both households and persons living below the poverty line than Monroe County and Southeast Michigan, as Table 9 demonstrates below.

Table 9. - Poverty Level Comparison, 2010

	Persons in Poverty 2010	Households in Poverty 2010
Berlin Charter Township	6.3%	4.9%
Monroe County	9.0%	9.2%
Southeast Michigan	14.3%	13.0%

Source: U.S. Census; SEMCOG 2040 Forecast, 2013

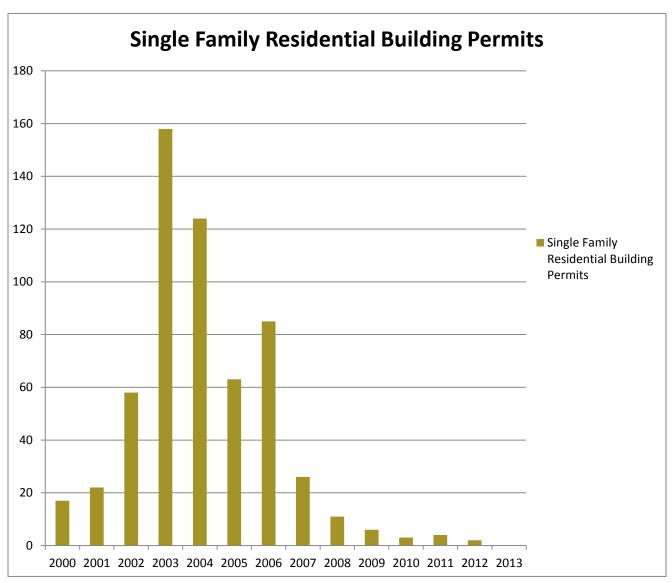
# **Housing Tenure**

As in previous years, the tenure of householders in Berlin is primarily owner-occupied (80%). Renter-occupied units comprised 10% of the total as did vacant units (remaining 10% of total). In addition, the number of rental units decreased 7% between 2000 and 2010.

# New Single Family Residential Development

From 2000 to 2013, 579 new single-family residential homes had applied for building permits. The housing boom peaked in 2003 with 158 permits and declined to 26 permits by 2007. Figure 5 below demonstrates Residential Building Permits in Berlin between 2000 and 2013.

Figure 5. – Single Family Residential Building Permits



Source: SEMCOG Residential Building Permits, 2013

### **Housing Cost**

Table 10 on the following page demonstrates the decline of housing value from 2000 to 2010. In 2000, the median housing value (in 2010 dollars) was \$194,881 decreasing 14.4% to a value of \$166,900 in 2010. Meanwhile, median gross rent increased 8.8% from \$839 (2010 dollars) in 2000 to \$913 in 2010. The decrease in available rental housing units within the Township has impacted the cost of rental units within the Township increasing the demand and costs.

Table 10. – Housing Value (in 2010 dollars)

	Berlin Charter	Township		
	2000	2010	% Change	
Median Housing Value	\$194,881	\$166,900	-14.4%	
Median Gross Rent	\$839	\$913	8.8%	

Source: SEMCOG Community Profile, 2013

#### **Natural Resources**

Berlin is situated in an area abundant in natural resources. These include Lake Erie, the Huron River and Swan Creek, the Pointe Mouillee State Game Area and agriculturally productive soils. These resources are fragile and can be easily damaged through pollution, erosion, and uncontrolled development. It is important to understand the hazards that could befall these resources, and to address measures to manage and protect the frail equilibrium between man and nature. This section will describe the natural resources of Berlin and their relationship to Berlin's population.

# **Floodplain**

The entire Township is located either in the 100-year floodplain or the 500-year floodplain based upon the latest FEMA updated mapping. The eastern one-third (1/3) of the Township is located within the 100-year floodplain which is primarily wetland area, and does not contain soils suitable for high-density or high-impact development. The remaining portion of the Township is considered part of the 500-year floodplain area.

### Soils

Due to a seasonal high-water table, the soil types found in the Township are severely limited for septic system or on-site waste disposal use. As a result, water and soil pollution problems stemming from septic system use became apparent in the 1970's. The Township constructed a sanitary sewage disposal system to help mitigate the pollution caused by septic system use. The Township's soils are suitable for agricultural purposes.

#### Surface Water

Berlin is one of eight coastal communities in Monroe County situated on Lake Erie. All surface waters from the various drainage systems are of local origin, with Swan Creek and Port Creek having their upper reaches in Exeter and Ash Townships, and Wayne and Washtenaw Counties.

Segments of Berlin seasonally flood due to stream overflows or from high lake levels.

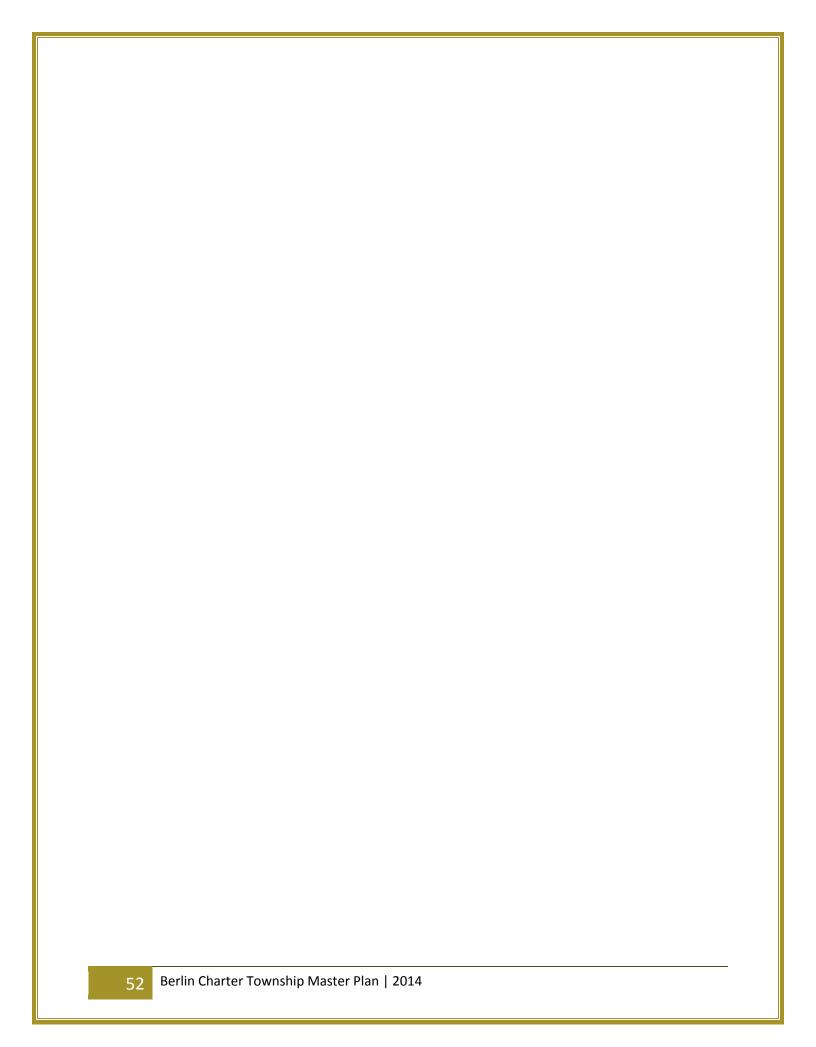
High, sustained winds from the east or northeast can push Lake Erie's water into the Swan Creek estuary and Langton Drain, surrounding the Village of Estral Beach and the lower portion of the Huron River, causing rapid rises in water levels within an extremely short period of time. Streams and drains in Berlin may overflow their banks as a result of heavy rains or early spring snow melting, especially during periods of high groundwater levels, saturated soils, or frozen soils. Most notable of these water courses are the Huron River and Swan Creek.

#### Groundwater

Approximately 99% of the residents in Berlin are connected to the Detroit Metropolitan Water System. The depth of the highest known water table in the Township is between one and two feet due to the predominance of impermeable soils. The existing wells that were not abandoned are drilled primarily into Dolomitic bedrock.

# **Wetlands**

Wetlands represent another valuable element of the Township's water resources. Wetlands are lowland areas characterized by constant or intermittent inundation, hydric soils and specific vegetation types. They are often found in association with other water features, such as lakes, ponds or streams, but can also exist on their own in topographical depressions. Wetlands serve a wide variety of purposes, such as wildlife habitat, flood control, water filtration, groundwater recharge, scenic and recreational use, etc., and should thus be preserved whenever possible.



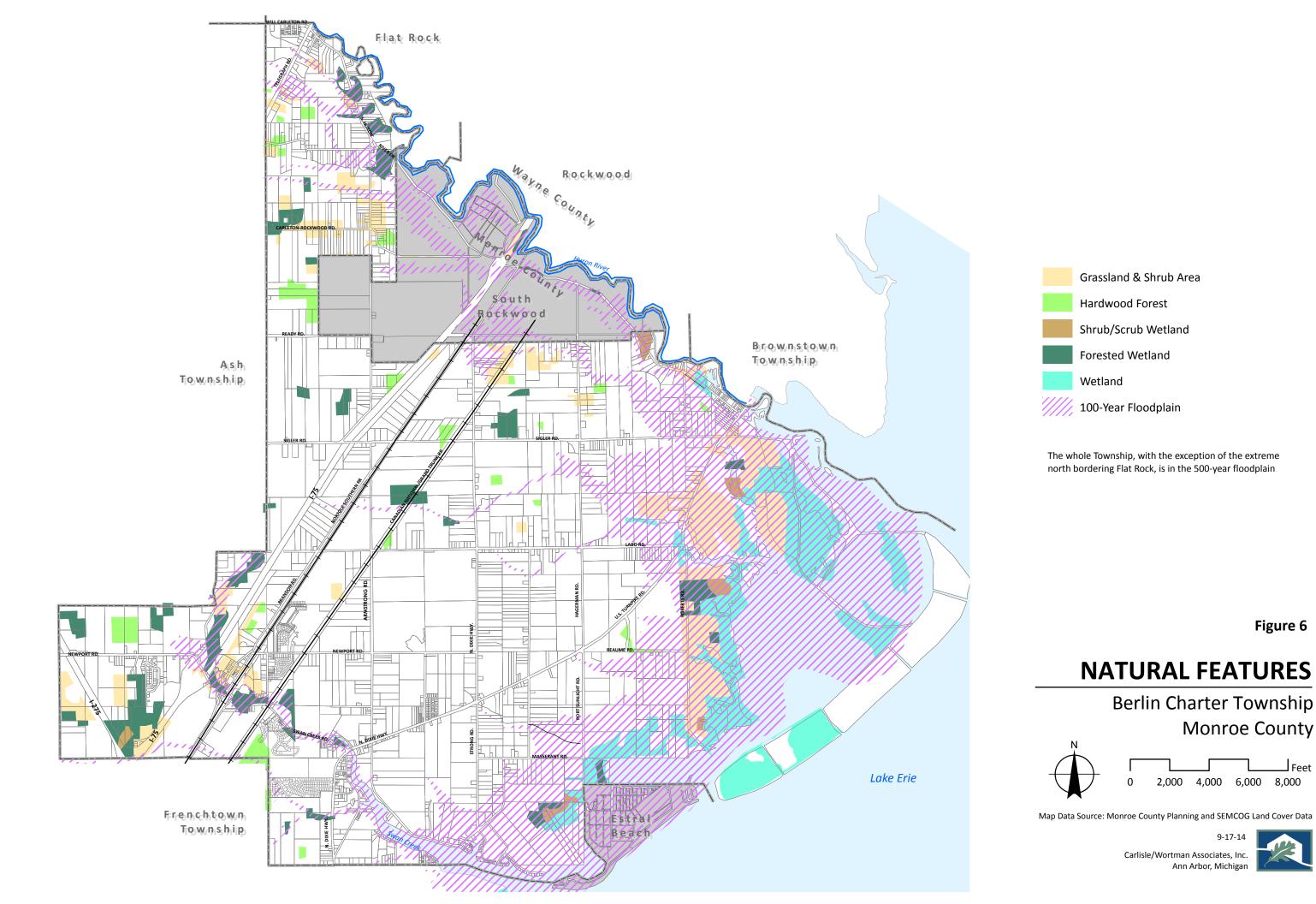


Figure 6

Figure 6, Natural Features demonstrates the various wetland areas throughout the Township. These areas are primarily associated with Lake Erie, the Huron River, Swan Creek or other adjacent/nearby streams and drains. As the map depicts, there are a variety of wetland types found in Berlin such as shrub/scrub wetlands, forested wetlands, and wetlands.

#### *Woodlands*

Woodlands and tree rows form a valuable landscape fabric which provides wildlife habitat, recreational value, and substantial contribution to the scenery of the Township. While large patches of wooded area offer the most meaningful habitat, well-established tree rows can provide valuable wildlife corridors, linking one habitat to another.

Hardwood forested and grass shrub lands are located throughout the Township. Many of the wooded areas exist in combination with wetlands, and remain today because those lands have a lesser agricultural value.

#### Coastal Zone

With the enactment of the Federal Coastal Zone Management Act of 1972 (P.L. 92-583), the Atlantic Pacific, Gulf and Great Lakes states were provided the authority to enact their own set of procedures and requirements for coastal zone planning. At the county level, the Monroe County Planning Department has prepared a Coastal Zone Management Plan as a component to the 1993 Comprehensive Plan Update. This component superseded three previous plans that were done in 1976, 1977, and 1985. Within this plan the identification of the County's coastal boundary is addressed and a number of "Areas of Particular Concern" (APC) have been identified for inclusion into the State of Michigan's Coastal Zone Management Plan.

Due to Berlin's proximity to Lake Erie, distinct development strategies should be implemented for their coastal area. Based on the county component, this area encompasses that portion of the Township that lies east of North Dixie Highway/U.S. Turnpike. Of nineteen (19) APC's addressed by the County, three areas are sited wholly within the Township's boundaries: Pointe Mouillee State Game Area, Agricultural Lands of Importance, and the Swan Creek/ Estral Beach Flood Hazards Area. Issues of relevance to these areas include the ecological importance of the Pointe Mouillee Marsh and its past erosion problems, retention of prime agricultural lands, and sound development practices along Swan Creek and the Village of Estral Beach.

### **Community Facilities and Services**

Berlin is governed by a typical Township Board consisting of a Supervisor, Clerk, Treasurer and four (4) Trustees. The Township Hall (built in 2001) is located at 8000 Swan View Drive, and is adjacent to the wastewater treatment plant. The Township Hall houses the offices of the Clerk, Treasurer, Assessor, Supervisor and Building Official, as well as the Senior Center. The water and sewer offices are located in the wastewater treatment plant. The sewage treatment plan is also located on site.

In 1996, twenty (20) acres were purchased by the Township at the northeast corner of Labo Road and North Dixie Highway in order to accommodate future needs of the Township.

#### Fire and Police Protection

The Township does not have its own police force. The Monroe County Sheriff responds to citizen complaints and emergencies on a call by call basis. The closest substation is located at 2979 Nadeau Road in Frenchtown Township. The Michigan State Police provides additional police protection as requested/needed.

The Berlin Fire Department provides protection from fire and related hazards. There are two (2) fire stations in the Township. Each station has its own crew, equipment, and jurisdiction.

Station 1, located on Swan Creek Road, serves the south half of the Township from Labo Road south to the southern boundary. Station 2 is located in the Village of South Rockwood on Dixie Highway. Station 2 serves the area north of Labo Road, including part of the Village of South Rockwood. The County provides ambulance service through a private contractor.

# Water Service

The majority of the Township has access to the municipal water supply. Berlin (and South Rockwood) receives its water from the Detroit Water and Sewage Department via a thirty (30) inch main. This main runs along Dixie Highway and splits into two (2) twenty-four (24) inch mains. These mains then split and run along almost every local road within the Township to provide nearly complete coverage.

The water grid contains twelve (12) inch pipes along major thoroughfares and eight (8) inch pipes along local roads and throughout new subdivisions. A few locations are served by six (6) inch pipes.

The Township Engineer tested the water system in December 2005 by creating a "pressure distribution analysis". The "Water Supply Analysis" report shows that the Township has a very good water system that satisfies fire flow requirements. The Township Engineer also states the system will be able to accommodate the current and future growth of the Township. They have recommended the long dead-end runs be looped in the future to provide adequate service for new developments and it improve water quality.

# Sanitary Sewer Service

Sanitary sewer service is limited to the southern portion of the Township. Sewer lines are anticipated for Armstrong Road, Telegraph Road, Hagerman Road, N. Dixie Highway, U.S. Turnpike, and portions of South Huron River Drive, Strong Road, Chinavere Road, Sigler Road, and Wassanova Road. However, these lines will not be installed until development occurs in those areas. The Village of Estral Beach is served by the Township's sewage system. South Rockwood is served by the S. Huron Valley Wastewater Treatment System.

The Township maintains and operates its own wastewater treatment facility located at the Township Hall complex at 8000 Swan View Drive. The township Engineers performed a utility capacity analysis on the sanitary sewer system and found it adequate for all the development currently using the system. Over the past few years, the Township has spent over \$6 million upgrading the current system including installing additional tanks, refurbishing existing equipment, and upgrading pump station 6 and 7. These upgrades have enabled the plant to accommodate current capacity, all of the approved subdivisions, and future growth.

Higher density development should be located in areas served by both water and sewer services. Water and sewer services should be upgraded and extended to provide adequate services in a planned and orderly fashion. All new development should be encouraged to locate in close proximity to public services to keep costs down and to provide orderly development by the Township.

### **Schools**

Berlin is served by three (3) school districts – Monroe Jefferson, Airport, and Flat Rock school districts. Two (2) public Elementary Schools are located within the Township. North Elementary (Monroe Jefferson School District) is located on North Dixie Highway between Armstrong and Strong Roads. Neidermeier Elementary (Airport School District) is located on South Newport Road, south of Swan Creek Road.

In addition, a third elementary school (Ritter Elementary – Airport School District) is located in the Village of South Rockwood. A small area of the northwest corner of the Township is served by the Flat Rock School District.

St. Charles Elementary is also located in Berlin at the corner of Swan Creek Road and Dixie Highway.

#### Parks + Recreation

#### Township Parks

Robert D. Laginess Park located on Brandon Road is the Township's largest park facility. This park contains a modular play structure, swing-set, slide, benches, an accessible pathway, and picnic pavilion. A 1,155 square foot building (heated and cooled) containing restrooms and kitchen facilities is available for rent for special occasions and family events.

In addition to Laginess Park, two (2) mini-parks are located within or adjacent to residential developments, Merrill and Lillian Parks. These parks are approximately 0.5 acres in size, and have limited use, as they are primarily undeveloped.

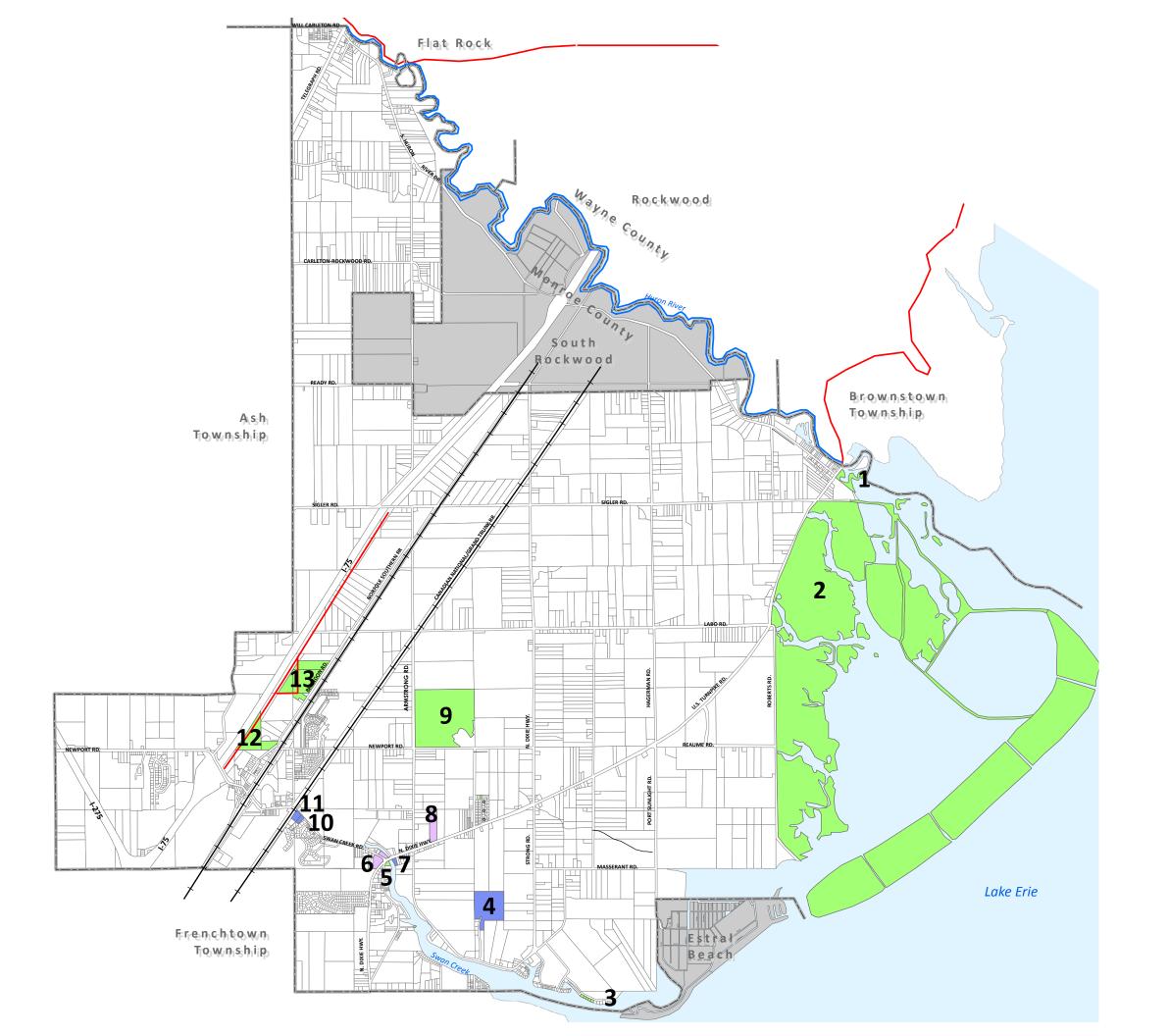
#### Regional Parks

A large open space owned by the Huron-Clinton Metropolitan Authority (HCMA) is located on the south side of the Huron River along the northwest township border. However, this property is not accessible to the public due to the single-family residential properties that abut it.

#### State Parks

The Pointe Mouille State Game Area encompasses approximately 2,000 acres of Township land. It takes up the entire eastern shoreline (Township boundary) and juts out into Lake Erie, near the mouth of the Huron River. According to the Michigan Department of Natural Resources (DNR), Pointe Mouille is one of the largest fresh water marsh restoration projects in the world. It consists of wetlands, diked marshes and river bayous.

The wetland dikes make excellent hiking trails. Waterfowl, shorebirds and other wetland wildlife are the primary attraction at this site. Visitors can walk to hike along the water control dikes for a good look at muskrats, waterfowl, shorebirds, wading birds, and birds-of-prey. This recreation area provides some of the best shorebird viewing in the State.



Community Facilities

Municipal Facilities

School Facilities

Bicycle Path

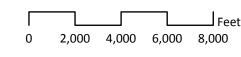
- 1. Lakepoint Marina
- 2. Pointe Mouillee State Game Area
- 3. Swan Creek Boat Club
- Waste Water/Water Treatment Plant,
   Senior Center, & Township Hall
- 5. Swan Creek Access Site
- 6. St. Charles School
- 7. Township Library
- 8. North Elementary School
- 9. Wyndridge Oaks Golf Course
- 10. Post Office
- 11. Fire Station
- 12. Fireman's Park
- 13. Laginess Park

Figure 7

# **COMMUNITY FACILITIES**

# Berlin Charter Township Monroe County





Basemap Data Source: Monroe County Planning

9-17-14
Carlisle/Wortman Associates, Inc.
Ann Arbor, Michigan

Most of the State Game Area is open to public hunting. Restrooms are available at the area headquarters. A boat ramp and fishing are also available at this site.

In addition, the DNR provides access to Swan Creek and Lake Erie via a boat launch at the northeast quadrant of the Swan Creek Road / Dixie Highway intersection. A small fishing deck, picnic area and parking are also provided at this location.

#### School Recreation Facilities

Schools provide the bulk of recreational opportunity and facilities in the Township. A total of three (3) elementary schools, North Elementary (Monroe Jefferson School District), Niedermeier Elementary (Airport School District) and St. Charles Elementary (parochial) are located within the Township, providing 41.65 acres of recreational land. Each school contains a large variety of playground equipment and sports fields.

#### Private Recreation Facilities

Several acres of private recreation facilities are also located within Berlin, including: the Newport Fireman's Park, Swan Yacht Basin, Lake Point Marina and Swan Creek Boat Club. The Lilac Brothers Golf Club offers 18 holes of golf located north of Newport Road and east of Armstrong Road, as well.

#### <u>Circulation + Traffic</u>

#### Road Network

Berlin is linked to the region by I-75 or I-275 which both run north and south. The I-75/I-275 split occurs just south of the Township's southern border in Frenchtown Township. Access to I-75 is only available at one (1) location within the Township at Swan Creek / Newport Road. Another I-75 interchange is provided just north of the Township border in South Rockwood. Residents can take South Huron River Drive or Carleton-Rockwood Road to access this interchange.

Adequate roads are essential to the conduct of commerce and daily activities. The automobile will continue to be the dominant mode of transportation due to scattered land use patterns, population densities and personal preferences. However, energy availability and cost will make non-motorized transportation more attractive, a factor which must be considered in future planning.

There exists a strong inter-relationship between the road system and land use patterns. The type of pattern of land use will strongly influence traffic volumes along a given road. Likewise, adequacy of a road may determine the type of

adjacent land development that occurs. Therefore, the benefit of a Transportation Plan is to assist in establishing priorities for future road improvements based on the function of Roadway services.

#### Roads are classified as follows:

- Interstate Provides major "through traffic" between municipalities and states.
- Principal Arterial Roads Primary function is to carry relatively long distance, through travel movements and/or to service important traffic generators, i.e. airports or regional shopping centers.
- Minor Arterial Roads Similar to Principal Arterial Roads, with trips carried being shorter distances to lesser traffic generators.
- Collector Roads Funnel traffic from residential or rural areas to arterials. Collector Roads also provide some access to property.
- Local Roads Primary function is to provide access to property, i.e., residential neighborhoods or rural areas.

The above classifications correspond to the National Functional Classification (NFC) Map for Monroe County used by the Michigan Department of Transportation (MDOT), Bureau of Transportation Planning. The road classification determines whether the road is eligible for federal aid. "Federal aid" roads include all principal arterials, all minor arterials, all urban collectors, and all rural major collectors.

The following listing describes all primary roads within Berlin along with their NFC designations:

- I-75 Interstate
- Telegraph Principal Arterial
- South Huron River Drive Minor Arterial
- N. Dixie Highway/U.S. Turnpike Minor Arterial
- N. Dixie (north of U.S. Turnpike) Major Collector
- Port Sunlight Road (south of U.S. Turnpike) Major Collector
- Swan Creek Road Major Collector
- E. Sigler Road Major Collector
- Carleton-Rockwood Road Major Collector
- Newport South Minor Collector

Figure 8. – Functional Road Classification WAYNE Rockwood South Rockwood Berlin Legend **Future NFC** NFC Interstate Other Freeway Other Principal Arterial Minor Arterial Major Collector Minor Collector Local Non-Certified Railroad Airports Rural - Previously Urban ACUB - Previously Rural ACUB County City

Lake or river

#### Rail Lines

Three (3) sets of rail tracks traverse the Township in southwest to northeast direction. All tracks are situated east and within one mile of I-75. Previously, Conrail owned and operated two (2) sets of tracks located in the western half of the Township. However, in 1998, Conrail was purchased by Norfolk Southern Railroad. Approximately 12 to 16 north and south bound trains pass through the Township on a daily basis. These tracks carry bulk materials.

The Grand Trunk Railroad/Canadian National owns and operates the third set of railroad tracks, which run parallel to and east of the Norfolk Southern owned tracks. These tracks also carry bulk materials.

#### Non-Motorized Paths

The need for pedestrian walks and bikeway facilities will increase as the population grows. In the future, constructing pathways on certain roads (e.g. Newport Road. Between I-275 and I-75) to accommodate non-motorized traffic may be necessary. Other alternatives for pedestrian and bicycle facilities include conventional sidewalks, paved shoulders dedicated and marked for bicycle use and separate bicycle pathways next to the road.

Linking bike paths to adjacent communities and neighborhoods will help in providing recreational opportunities for township residents and residents of neighboring communities. The abandoned Grand Trunk Railroad right-of-way has potential to become a non-motorized pathway.

An existing bike trail, located along the east side of I-275, was closed after the State deemed the bridges unsafe for travel. The Township should consider opening the trail now that more residents live on the west end of the Township. However, at this time there are no plans to reconstruct the bridges. A pedestrian connection from higher density residential areas to the existing trail should also be explored.

Trails could also be developed along Swan Creek. If developed, connecting trails could link the library and golf course to the Swan Creek trail. Trail development along Lake Erie should be coordinated with the Lake Erie Trail System and the Downriver Linked Greenways Initiative.

In addition, sidewalks and non-motorized pathways should be required in conjunction with new development.

#### Marinas

In addition to the other forms of transportation, Township residents also have access to navigable water bodies such as Swan Creek, Huron River and Lake Erie. There are currently three (3) marinas in the Township and one (1) boat launch maintained by the DNR, which provides direct access to these water bodies.

Swan Yacht Basin and Swan Creek Boat Club are located near the mouth of Swan Creek. Lake Point Marina is located on the Huron River near South Huron River Drive. Estral Beach Marina is located on the mouth of Swan Creek, on the east end of Estral Beach.

# Community History of Berlin

Berlin's history – which is really the history of southeast Michigan and northwest Ohio – has been influenced by its relationship to Lake Erie, the early travel routes between Detroit, Monroe and Toledo, and by its natural resources.

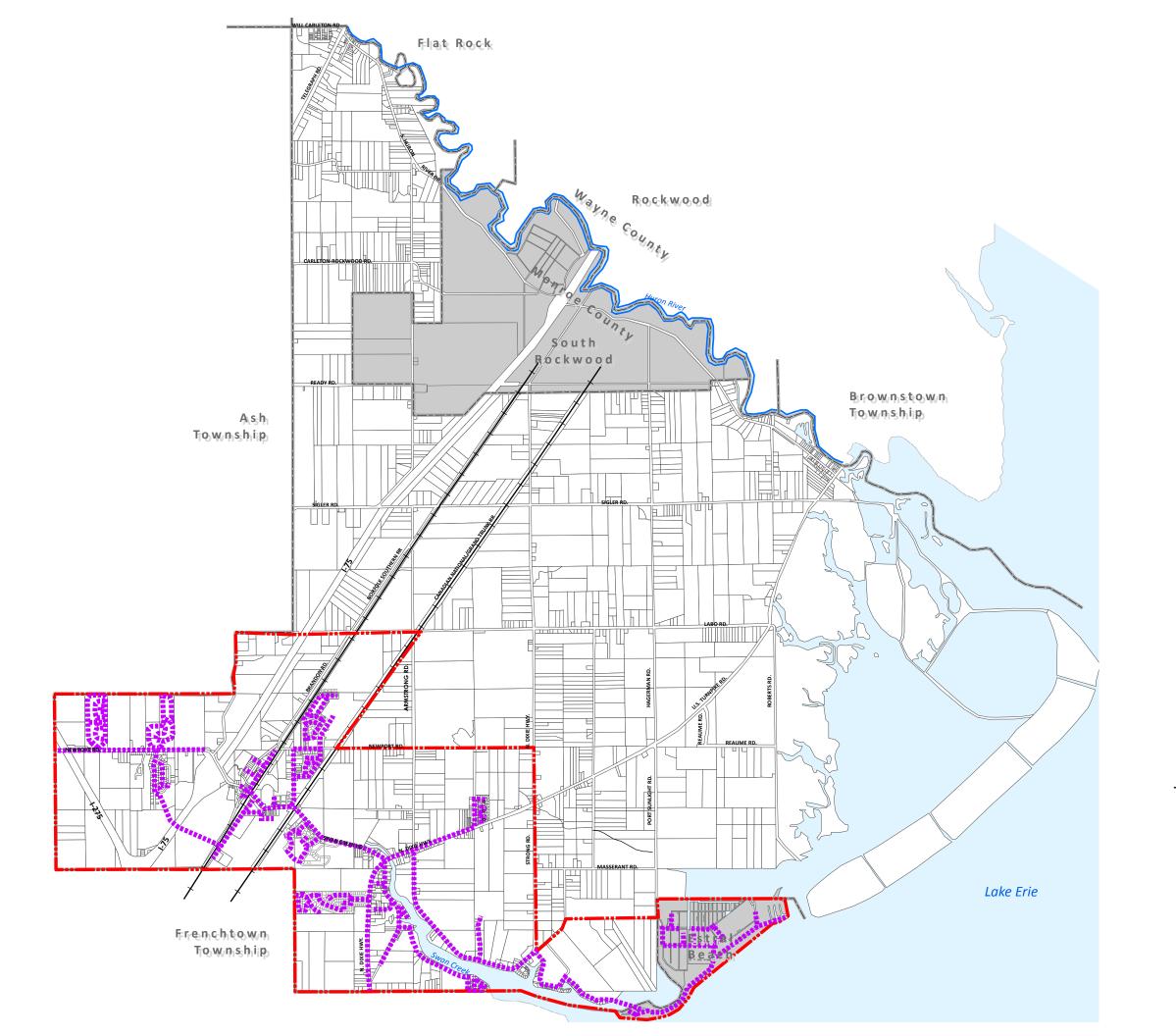
Prior to European colonization efforts in the Great Lakes region around the 17<sup>th</sup> century, the area was occupied by the Ottawa, Chippewa, Delaware and Wyandot Native American tribes. The first European explorers were French and were believed to have visited the Great Lakes area around the mid- to latter 1600's, claiming these lands for their motherland France. The territory came under British control following the signing of the Peace Treaty of Paris in 1763, and later was claimed by the United States at the close of the Revolutionary War in 1783.

In 1785, the United States obtained a strip of land 6 miles in width, running from the River Raisin to Lake St. Clair. This tract of land includes the majority of present day Berlin, and was the only area that early settlers could utilize for cultivation. It was a land of plenty to those early inhabitants, as it had virgin forests, wildlife, waterfowl and fish, and wild fruits and berries.

In 1816, a number of French-Canadian families came with land grants secured from the government. At that time, there was only one road through this area – the U.S. turnpike (Dixie Highway) from Detroit to Monroe – which had been laid out during the War of 1812 by General Hull. Most of those early families settled in the area bounded by Mouillee Creek on the north, and Swan Creek to the south, Lake Erie to the east, and Dixie Highway to the west. This early settlement was called A La Riviere aux Cygurs or A Swan River because of the large flocks of wild swans that inhabited the nearby marshes.

Around 1825, Congress adopted legislation to colonize interior territories, which included Michigan, by establishing counties and townships. Monroe and Wayne Counties were established, and in 1827, Governor Cass established 5 townships in the county: Frenchtown, Monroe, Raisinville, Erie and Port Lawrence. In latter years, further partitioning of the county was implemented, and in 1867, Berlin was formed out of Ash Township, which completed the present number of townships within Monroe County.

According to records, the history of Berlin is primarily focused around the religious background of its early settlers, of which, the majority were Catholic. St. Charles Church, located at North Dixie Highway and Swan Creek Road, is the most noteworthy historic structure in the Township, having been built in 1886. Two of the Township's first settlers were William White and Louis LeDuc. John Strong was the first Supervisor. The Township's name was established at the first organizational meeting by a member of the Niedermeirer family after their hometown in Germany.



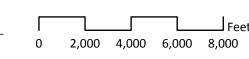
Sewer Service
Urban Service Boundary

Figure 9

# **SEWER SERVICE AREA**

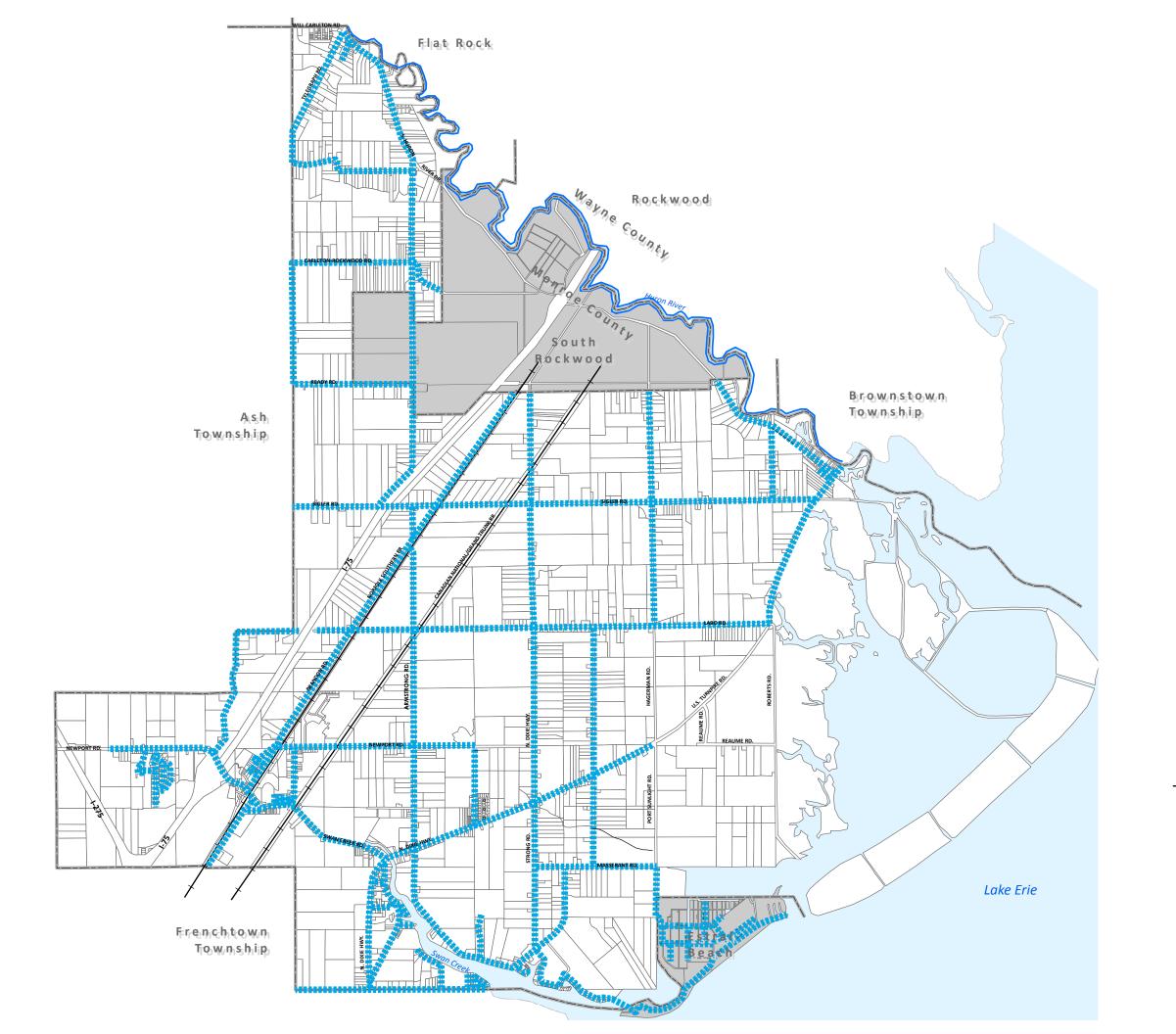
# Berlin Charter Township Monroe County





Basemap Data Source: Monroe County Planning & Hennessey Engineers

9-17-14
Carlisle/Wortman Associates, Inc.
Ann Arbor, Michigan



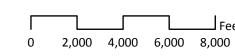
Water Line

Figure 10

# **WATER SERVICE AREA**

# Berlin Charter Township Monroe County





Basemap Data Source: Monroe County Planning & Hennessey Engineers

9-17-14
Carlisle/Wortman Associates, Inc.
Ann Arbor, Michigan