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UPPER GWYNEDD TOWNSHIP

COMPREHENSIVE *PLAN* UPDATE
2004



March 2004

UPPER GWYNEDD TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

RESOLUTION NO. 15-2004

**RESOLUTION ADOPTING A COMPREHENSIVE PLAN
FOR UPPER GWYNEDD TOWNSHIP**

WHEREAS, Upper Gwynedd Township, Montgomery County, PA has the power to adopt and amend the Comprehensive Plan as a whole or in parts, pursuant to Section 302 of the Municipalities Planning Code, 53 § 10305; and

WHEREAS, Upper Gwynedd Township in compliance with the requirements of law has conducted the requisite public hearings, and requested and/or obtained the comments of Montgomery County, contiguous municipalities, and North Penn School District; and

WHEREAS, Upper Gwynedd Township has considered the final draft of the Upper Gwynedd Township Comprehensive Plan, as prepared by E. Van Rieker, and recommended for approval by the Upper Gwynedd Township Planning Commission on June 24, 2004; and


WHEREAS, Upper Gwynedd Township, desires to implement and adopt the Comprehensive Plan in its final form.

NOW, THEREFORE, BE IT RESOLVED and enacted by the Upper Gwynedd Township, after public hearing, that the Comprehensive Plan including the Open Space, Existing Institutional and Historic Resources Plan, the Future Land Use Plan, and the Aerial Map is adopted this date by affirmative votes of not less than a majority of all the members of the Board of Commissioners.

RESOLVED, this 22nd day of November, 2004.

**BOARD OF COMMISSIONERS
UPPER GWYNEDD TOWNSHIP**

By:


President

Attest:


Secretary

Acknowledgments

The preparation and evaluation of the Upper Gwynedd Township Comprehensive Plan Update was a joint effort including the following municipal individuals and consultants:

Comprehensive Plan Committee:

Kenneth Kroberger, Township Commissioner
William Lawrence, Assistant Township Manager and Zoning Officer
Leonard Perrone, Township Manager

Consultants:

E. Van Rieker, AICP
Kathleen Fisher, Graphics
Anita Sands, Demographics

Board of Commissioners:

James A. Santi, President
Jean E. DeBarth, Vice President
Eugene P. Ziemba
Kenneth Kroberger
M. Clare Edelmayer

Planning Commission:

Samuel Miller, Chairman
John C. Lancaster, Vice-Chairman
C. Duane Snyder, Secretary
John Klein
Thomas Dyott
Robert A. Schunke
Robert Walker
Rick Vetri
Frederick F. Ohntrup

Solicitor's Office:

Robert J. Kerns, Esq.
David Onorato, Esq.
Richard Watt, Esq.

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6. Maintain the high quality of industry to provide a part of a strong tax base.

Comment for 2004: Ongoing. Upper Gwynedd became the final community in the North Penn School District to put the earned income tax into effect. The Township will collect 0.5% because NPSD already collects 0.5%.

7. Limit commercial development along traffic arteries.

Comment for 2004: Accomplished - continue this goal.

8. Establish commercial areas and provide for convenience shopping.

Comment for 2004: Accomplished - no additional centers desired; however, it is desired to see the refurbishment of the Genuardi Center situated at West Point and Sumneytown Pikes.

9. Provide a workable relationship between the township's road system and land usage.

Comment for 2004: Ongoing.

Chapter 2

LAND USE RECOMMENDATIONS

Summarized below are the suggested land use recommendations contained in the Future Land Use element of the Comprehensive Plan Update which reflect changes from either vacant land use on the Existing Land Use Plan or are departures from the existing zoning:

1. A new district entitled Residential/Office is proposed for numerous transitional properties which have frontage along Sumneytown Pike as well as two isolated properties along Valley Forge Road adjacent to the existing shopping center.
 - a. These properties are presently zoned either R-2 Residential or C Commercial. In order to provide a more compatible transition between commercial uses along heavily trafficked roadways and existing nearby residential communities, a new district which would be a “softer” version of the BP Business Professional District is proposed.
2. The Lansdale Medical Group property - a multi-specialty physician practice which serves about 100,000 patients (circa 2002) - which is presently zoned R-2 Residential is proposed as Business Professional District.
3. Miscellaneous properties zoned Residential along Broad Street north of the CVS which are not proposed for Residential/Office are proposed for Business Professional.
4. Vacant properties adjacent to the new relocated Allentown Road would maintain existing zoning, with the exception of the long rectangular parcel positioned between the cemetery and the relocated Allentown Road opposite Merck.
 - a. The parcel at the corner is proposed for Business Professional use, while the balance of the parcel which is relatively narrow and situated along the bend in Allentown Road is recommended for permanent open space.

- b. The natural stream valley which divides the two industrial properties along Allentown Road is recommended as permanent open space.
- 5. The vacant parcels situated along the west side of Broad Street and along Allentown Road north of Broad Street are proposed for the same uses as they are presently zoned.
- 6. Numerous properties located along the easterly side of West Point Pike south of Sumneytown Pike which are presently zoned Residential are proposed as Business Professional.
- 7. One additional parcel east of the electric substation presently zoned Residential (and owned by PECO) is proposed as Business Professional.
- 8. Note the proposal for the relocation of Moyer Boulevard adjacent to the Merck tank farm property and the area between the relocated Moyer Boulevard and the railroad would be preserved as permanent open space.
- 9. Note that the future 202 Expressway is identified over the vacant portion of the property that used to be the Bentley's Restaurant.
- 10. Note that the site of the greenhouse operation indicated as Commercial along South Broad Street is proposed as single family on the Future Land Use Plan.
- 11. Other properties indicated as vacant are shown as land uses which are consistent with the current zoning.
- 12. The proposed location of the Liberty Bell Trail and the Power Line Trail have been identified. The Township Park and Recreation Committee favors the Liberty Bell Trail in the location of the PECO utility rights-of-way between Sumneytown Pike and Wissahickon Avenue, which in effect would be shared with the Power Line Trail. Following that point, the trails divide and extend in different directions.
- 13. The properties listed as agriculture (Rupp and Delaware Valley College of Science and Agriculture) have been further indicated as follows: "ACE - Properties under an Agricultural Conservation Easement". The County Farm Bureau has purchased the development easements for these properties and thus agriculture is anticipated as a permanent long term use for these properties.

14. Reference to the TOD - Transit Oriented Overlay District - has been added to the legend and identified on the former Zenith property recently approved at Wissahickon Avenue and Church Road.
15. The Village Commercial designations for West Point have been added to the plan. See reference to a separate study: West Point Village Preservation and Improvement Plan (see Chapter 8).
16. Consider an amendment to the Zoning Ordinance which would protect the quality of noteworthy buildings in West Point Village and protect these and other historic resources from demolition.

Existing and Proposed Development Between Upper Gwynedd Township and Contiguous Municipalities

Listed below are the municipalities contiguous to Upper Gwynedd Township, along with a statement of existing and proposed development (see Chapter 11 detailing the relationship with proposed land use and comprehensive plans for contiguous municipalities).

In general, the Future Land Use Plan proposes development - or recognizes existing development patterns that are compatible with existing and proposed land use in contiguous municipalities. Exceptions where they exist are discussed below:

1. North Wales Borough.

The Borough of North Wales is a small municipality consisting of 364.8 acres (0.57 square miles) and a population in 2000 of 3,342 persons. Upper Gwynedd Township completely surrounds the Borough of North Wales on all sides. Residential uses form a virtual seamless relationship on three sides of the Borough.

2. Lower Gwynedd Township.

Lower Gwynedd Township runs along the entire easterly border of Upper Gwynedd Township. The two townships are divided by existing roads:

- Swedesford Road (between Township Line Road and Route 202) for a length of approximately 2.1 miles.
- Route 202 for a length of approximately ½ mile.

- Swedesford Road (between Route 202 and Welsh Road) for a length of 1,000 feet (0.19 mile).

Existing land use in Lower Gwynedd Township consists almost entirely of moderate to low density single family residential with scattered pockets of open space. The Wissahickon Valley corridor consists of open space in Upper Gwynedd and continues in that fashion through Lower Gwynedd as well. Small areas of commercial north of Hancock Road which reflect small businesses and Rhoads Nursery/Retail Florist exist on the Upper Gwynedd side and Route 202, which is to be widened as a part of the overall future 202 Expressway program, serves as a transition or buffer between the businesses in Upper Gwynedd and residential development in Lower Gwynedd.

Large areas of permanent open space consisting of agricultural land currently under an agricultural conservation easement also north of Hancock Road and the Gwynedd Wildlife Preserve, consisting of more than 240 acres south of the R-5 SEPTA line, are open space areas in Upper Gwynedd which border low density residential uses in Lower Gwynedd. The Future Land Use Plan contemplates a continuation of these residential patterns.

3. Montgomery Township.

Montgomery Township runs along the northerly border of Upper Gwynedd for a distance of approximately 1 and 4/10 miles. The boundary is Welsh Road for this entire length. Existing land uses in Upper Gwynedd consist of agricultural conservation easement properties for approximately half of this length; office development east of North Wales Road; and two small pockets of commercial uses, one at the intersection of North Wales Road and an area between Welsh Road and Route 202 which consists of commercial uses such as a new Wawa with gas, a restaurant, and two smaller businesses with frontage out to Welsh Road. Most of the area in Montgomery Township which borders Upper Gwynedd has been developed, largely for commercial or shopping center uses. Existing land use patterns in Upper Gwynedd follow very closely the Comprehensive Plan which will be either compatible by virtue of proximity of office/commercial uses or the presence of agricultural open space on the Upper Gwynedd side of Welsh Road.

4. Lansdale Borough.

Lansdale Borough is an older community and the existing land use patterns along the northerly boundary of Upper Gwynedd have been in place for many years. With the exception of the industrial land located between the Stony Creek Railroad and the SEPTA commuter line, the balance of the boundary constitutes a virtual hand in glove fit with the existing land uses in Upper Gwynedd which are largely medium density residential. Broad Street as it leaves Lansdale Borough toward Upper Gwynedd is a mix of higher density residential and commercial land uses and Broad Street in Upper Gwynedd continues this general land use pattern albeit on smaller lots along the west side of Broad Street.

Upper Gwynedd also maintains an industrial land use between the aforementioned railroad lines. From a zoning and future land use point of view these are quite compatible. In addition, the Borough of Lansdale and Upper Gwynedd have recently "partnered" in the adoption of a Transit Oriented Overlay District for a property that includes the SEPTA parking lot in Lansdale and lands previously used for Philco-Ford Corporation but which are now vacant and in need of revitalization. The Future Land Use Plan for Upper Gwynedd supports the TOD - Transit Oriented Overlay District which includes as its intent the provision of residential land use that is compatible with and supportive of the use of public transportation; to include mixed use development consistent with small town character; which would permit uses such as apartments, mixed use buildings, personal service, commercial uses, and transportation related facilities intended to accomplish the purposes outlined above.

5. Towamencin Township.

Towamencin Township constitutes the westerly boundary along Upper Gwynedd Township. The boundary is formed by Valley Forge Road for its entire length of approximately 2.38 miles. Land uses in Upper Gwynedd are generally well established and few changes are contemplated in the Future Land Use Plan. Land uses in Towamencin are generally of greater intensity than those on the Upper Gwynedd side of Valley Forge Road. At the intersection of Valley Forge Road and Sumneytown Pike there are two small shopping centers (North Penn Marketplace and Sumney Forge Square) and an age qualified community under development (Gwynedd Commons) which border commercial uses or institutional uses on the Towamencin side of Valley Forge Road.

Further north, Upper Gwynedd consists of residential, institutional, and a small pocket of commercial uses at Allentown Road, whereas on the Towamencin side institutional uses such as the North Penn High School and commercial uses such as shopping centers nearer Allentown Road and commercial uses north of Allentown Road would constitute boundary uses, all of which are separated by Valley Forge Road. South of Sumneytown Pike higher densities exist for a distance in Towamencin Township of two apartment communities which abut properties largely single family south to the Northeast Extension of the Pennsylvania Turnpike. Below the Turnpike Ryan's Run townhouse community in Upper Gwynedd Township is contiguous to a single family development in Towamencin Township. Precautions were taken to establish a landscaped buffer along Valley Forge Road and all traffic emanates from Morris Road.

A future proposal for Upper Gwynedd is to suggest that two lots with frontage out to Valley Forge Road south of the Sumney Forge Shopping Center could take the form of a new zoning district identified as "Residential/Office" on the Future Land Use Plan. These properties in Upper Gwynedd front upon apartment condominium development in Towamencin Township.

6. Worcester Township.

Worcester Township occupies a large portion of the southerly boundary with Upper Gwynedd for a length of approximately 2.3 miles. Existing land uses in Worcester consist principally of single family residential with the exception of a townhouse community located opposite West Point Pike and the Visteon (formerly Ford Electronics) facility between South Board Street and the Northeast Extension of the Pennsylvania Turnpike. This stretch of land in Upper Gwynedd is largely single family residential or pockets of open space. A proposal for an age qualified residential community known as The Reserve at Gwynedd would actually transform prior industrial use and it is believed that the proposed residential use would be in greater compatibility with the single family uses on the south side of Morris Road in Worcester Township. Existing land uses in Upper Gwynedd are proposed to continue as identified on the Future Land Use Plan.

At the intersection of Valley Forge Road and Morris Road the landscaped frontage of Ryan's Run townhouses fronts out on sections of Worcester which are occupied for single family residential. Here again, heavily landscaped buffers have been employed under requirements of the Zoning Code to establish an attractive transition between these two forms of residential land use. In addition, for its entire length Morris Road - an attractive but heavily traveled country roadway - constitutes the transition boundary between Upper Gwynedd and Worcester Townships.

7. Whitpain Township.

Whitpain Township also borders the southerly boundary of Upper Gwynedd Township and also relies on Township Line Road for separation, which runs for a length of approximately 9/10 of a mile. Land uses on the Upper Gwynedd side of Township Line Road are either single family residential or permanent open space (a part of either Township or preserved open space owned and maintained by the Wissahickon Valley Watershed Association). These existing land uses are proposed for continuation pursuant to the recommendations of the Future Land Use Plan.

Chapter 3

HISTORIC AND NATURAL RESOURCES

Historic Resources

The Future Land Use Plan identifies two types of historic resources slated for preservation in Upper Gwynedd Township:

1. Individual historic buildings, six in number, positioned on individual lots.
 - Four of these are situated along the north side of Hancock Road and represent noteworthy period buildings - three residential and one an old schoolhouse. Two of these buildings, the old schoolhouse and the Roth Living Museum, are situated on properties preserved under an agricultural conservation easement and two are individual residences.
 - A fifth historic building is situated on the north side of Allentown Road and is slated to be preserved as a part of a new residential subdivision. The house is presently used and would be preserved for residential purposes.
 - The sixth historic building is known as the Evans Mumbower Mill (which dates back to the early 1800s) situated on a two acre lot in the Swedesford Road area of the Township. The property has been historically rebuilt consistent with its historical period architecture and uses and is presently owned and maintained by the Wissahickon Valley Watershed Association. This property is permanently preserved.
2. Village of West Point. This is a small community considered the only village within the borders of Upper Gwynedd Township. The Village of West Point has its own post office, which was originally established in January 1876. Today, West Point Village is a small community of approximately 130 properties and has been singled out for special zoning treatment by the Township Board of Commissioners through the adoption of the VPR - Village Preservation Residential District and the VC - Village Commercial District which were originally adopted in 1982.

These Districts were adopted in recognition of the special character of the Village of West Point. The Village contains a pleasant mix of single family and two family dwellings on smaller lot sizes, a number of small businesses including a post office along West Point Pike, a church and a small park. The character and the history of the Village of West Point are discussed at greater length in Chapter 8, Additional Studies.

Residents and business owners in the Village of West Point have formed a committee to develop a Preservation and Improvement Plan for the Village. The Committee, along with Township staff, will continue to meet to develop a plan to implement the preservation and improvement goals. The Committee will investigate opportunities to create an Historic Preservation District for noteworthy buildings within the Village.

Natural Resources

The 1995 Upper Gwynedd Township Park and Recreation and Open Space Plan discussed environmental and cultural resources for the Township which are briefly summarized below.

- An important objective of (the) Plan is to protect the critical natural resources and unique biological features that are prerequisites for the continuation of the quality of the environment and life in Upper Gwynedd Township.
- The terrain of Upper Gwynedd is mainly a rolling plateau covered by forests. It is dotted with numerous small ponds, small streams, and swamps produced by glaciation. The action of geologic erosion has given the area a corrugated or washboard appearance when it is viewed from a distance. However, the Township is comprised of approximately equal areas of 0% to 3% slopes and areas with 3% to 8% slopes. These areas occur mainly in heavily developed areas of residential or industrial development. These are land areas that are suitable for all types of uses. Approximately 95% of the Township falls into one of these two slope categories.

- Areas with slopes of 8% to 15% slope are scattered throughout the Township and occur only in areas adjacent to streams. These occur along the Wissahickon Creek in the southern portion of the Township; adjacent to an unnamed tributary of Towamencin Creek in the western portion of the Township; along Towamencin Creek in the north central portion of the Township; and adjacent, along north and south banks, to an unnamed tributary of Towamencin Creek in the northern portion of the Township.
- The Township's surface water resources are comprised of fresh water streams and ponds, with all of its streams eventually draining to the Delaware River Watershed.
- All the streams in Upper Gwynedd Township have been designated as trout stocking (TSF) streams. This classification indicates that the stream is maintained with stocked trout from February 15th to July 31st and maintenance and propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat. The major streams in Upper Gwynedd Township are listed below:

<u>Stream</u>	<u>Tributary to:</u>	<u>Water Uses Protected</u>
Wissahickon Creek	Schuylkill River	TSF
Towamencin Creek	Skippack Creek	TSF
Unnamed Tributary to Zacharias Creek	Zacharias Creek - Skippack Creek	TSF

- Approximately two-thirds of Upper Gwynedd - the eastern portion - lies in the major drainage basin of the Wissahickon Creek. The western portion of the Township is located in the minor drainage basin of the Towamencin Creek which drains to the major drainage basin of the Skippack Creek (south and west of Upper Gwynedd Township). A small, south central portion of the Township lies in the Zacharias Creek sub-basin, which also drains to the Skippack Creek.

- Significant portions of Upper Gwynedd Township contain prime agricultural soils, some of these with a seasonal high water table. Since the 1950s, most of these areas have been developed for residential or industrial purposes. These are soils that are nearly level and in addition to high agricultural productivity are suitable for development. Growth pressures over the previous decades have largely resulted in the development of these soils. Presently, farming is not a major land use within the Township. However, approximately 220 acres in the northeast corner of the Township have been permanently preserved for agricultural purposes (the former Rupp and Roth farms - now Delaware Valley College properties). According to Montgomery County, these properties are under an agricultural conservation easement.
- Alluvial or hydric soils generally have moderate to poor permeability, are frequently flooded, and have high groundwater tables. These soils are best suited as open space for passive open space or recreational purposes. Wetlands, which provide a host of important ecological and economic benefits, are typically located in the areas of alluvial soils which are also in or adjacent to floodplains adjoining the three major streams which traverse the Township. The majority of wetlands in the Township occur in the southern half along the Wissahickon Creek.
- In 1970, the Upper Gwynedd Township Floodplain Ordinance was adopted. This ordinance is intended to meet the objective and comply with requirements of the National Flood Insurance Program and the Pennsylvania Floodplain Management Act. The ordinance is also intended to protect the public health and safety by preventing excess development with flood prone areas. Development in flood prone areas must adhere to the restrictions and requirements of the Floodplain Ordinance, which identifies the boundaries of the 100-Year Floodplain.
- Development in these areas has been largely avoided and significant sections of the floodplain are preserved in permanent open space, most particularly the main branch of the Wissahickon Creek which traverses the Township between Sumneytown Pike and Swedesford Road. The Wissahickon Valley Watershed Association has designated the stretch between Sumneytown Pike and the Borough of Lansdale as a priority area for open space preservation along the Wissahickon Creek.

- In other sections of the Township, tributaries of the Towamencin Creek have been preserved as permanent private open space which are preserved between the townhouse communities of Gwynedale with frontage along Sumneytown Pike and Stone Gate townhouses with frontage to Allentown Road. In addition, stream valley and adjacent floodplain have also been protected in the center of the Stony Creek development (situated between Allentown Road and the Stony Creek Railroad). Smaller tributaries to the Towamencin Creek and the Zacharias Creek have been preserved as a part of small passive open space parcels in the southwestern quadrant of the Township.

Consistent with Act 68 of 2000 which amended the Municipalities Planning Code, the plans for natural and historic resource protection and preservation shall be consistent with and may not exceed those requirements imposed under the following:

- The Clean Streams Law.
- The Bituminous Mine Subsidence and Land Conservation Act.
- Coal Refuse Disposal Control Act.
- Oil and Gas Act.
- Agricultural Area Security Law.
- An Act Protecting Agricultural Operations from Nuisance Suits and Ordinances Under Certain Circumstances.
- Noncoal Surface Mining Conservation and Reclamation Act.

Chapter 4

PARK AND RECREATION AND OPEN SPACE PLAN, 1995

1. The Final Report, October 1995 included the following:

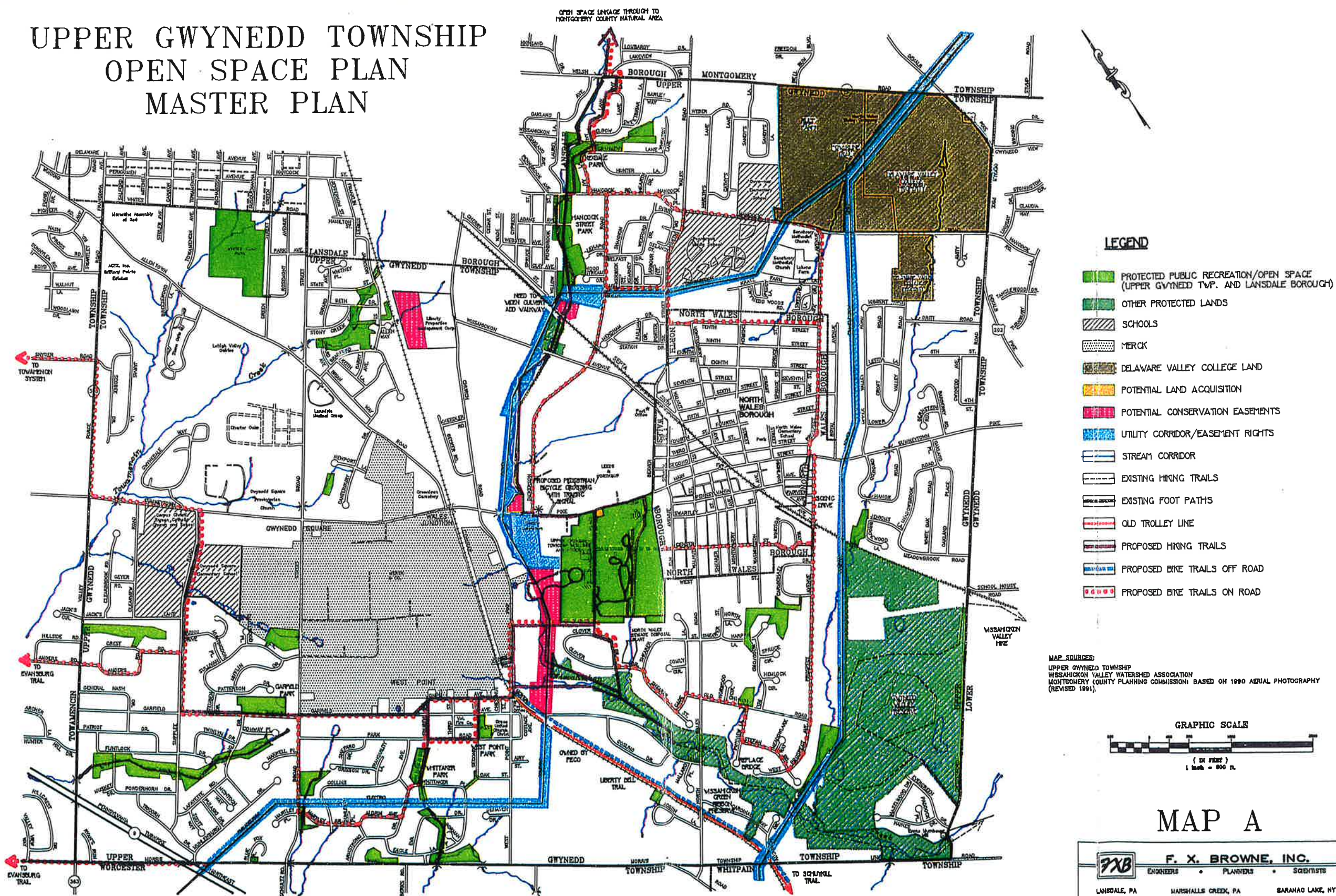
Upper Gwynedd plans to obtain conservation easements for two . . . properties: the Lauchman land (1.8 acres) on Sumneytown Pike and the Liberty land (20.0 acres) on Church Road (page 38).

See Map A (following page) for locations.

2. *Key areas that link existing open space or protect the natural resources of the township were selected for conservation easements or purchase. (Page 39).*

See Township Parks and Recreation chapter for more discussion, particularly of Parkside Place Master Plan.

UPPER GWYNEDD TOWNSHIP OPEN SPACE PLAN MASTER PLAN



MAP A

F. X. BROWNE, INC.
ENGINEERS • PLANNERS • SCIENTISTS
LANSDALE, PA MARSHALLS CREEK, PA SARANAC LAKE, NY

Chapter 5

DEMOGRAPHICS SUMMARY

The following is a summary of the complete Demographic Profile of Upper Gwynedd Township which is detailed in Chapter 6, Demographic Profile.

1. Population

Upper Gwynedd's population has been increasing steadily since the 1950s with the greatest percentage gains realized in the 1950s, when the Township more than doubled its population. In 2000, the Census counted 14,243¹ persons in the Township, for an increase of 2,046 residents (16.8%) over the ten years since the 1990 Census. Upper Gwynedd has experienced a seven-fold increase since 1950.

2. Population Forecasts

The Delaware Valley Regional Planning Commission prepared population forecasts for each minor civil division in the DVRPC region. According to those forecasts, Upper Gwynedd can anticipate continued growth through the next 25 years, to 2025, with a majority of that growth occurring through 2010. Upper Gwynedd is projected to add 1,807 (12.7%) through the year 2010, and 2,187 (15.4%) through 2025. This pace is greater than projected for both the Subregion and County for the same period (see Table 3).

3. Age of Population

The age distribution for the Township and the County are largely similar, with the biggest differences found in the age groups commonly termed "middle age", i.e. those between the ages of 35 and 54. Upper Gwynedd Township is slightly older than the County as a whole; the median age in 2000 for Upper Gwynedd was 39.9, while the County was slightly younger at 38.2. Interestingly, while Upper Gwynedd's median age is older than the County's, the proportion of school-aged population (5-17 years of age) is slightly larger.

¹Of the 14,243 residents in 2000, 196 or 1.4% lived in Census defined "group quarters".

The Township's greater percentage of middle aged adults and school aged children may indicate that Upper Gwynedd is comprised generally of families, with parents in the 35-54 year age group and children in the 0-17 years age group. Montgomery County and Upper Gwynedd Township both had higher median ages than did the Nation, which had a median age of 35.3 years in 2000.

4. Age Cohorts

Another important way of looking at age distributions in a community is to compare changes over time. Table 5 depicts population and percentage change for age cohorts in 1990 and 2000 for the Township, the Upper Gwynedd Subregion, and the County. As can be seen, the only geography to lose population in the 0 - 4 age group is Upper Gwynedd Township, which showed a decline of 13.3% since 1990. The Subregion as a whole gained over 11% in that category, while the County gained slightly under 3%. The school-aged population (5 to 17 year olds) witnessed gains in all geographies; a 10.2% gain for Upper Gwynedd, a 33.5% gain for the Subregion, and a 25.5% gain for the County. Overall, the largest percentage gain in population by age cohort for all geographies was the "85+" group in Upper Gwynedd, which more than doubled in size over 10 years.

5. Race

The racial distribution of the Township, shown in Table 7, is similar to the County's overall, with some variations in percentage of African Americans and Asians. The racial composition of the Township is also highly reflective of the Subregion's, indicating that the municipalities comprising the Subregion are largely similar in their racial composition.

6. Educational Attainment

Nearly 70% of the residents of Upper Gwynedd Township and just over 61% of the County's residents 25 years and over have had at least some college education. This is considerably higher than the National pattern, where 51.7% of the population has had at least some college and beyond.

7. Group Homes

Another indicator of community character is the presence of group homes.² The Census classifies group homes into two types: institutional and non-institutional. Institutional group homes include, for example, correctional facilities, nursing homes, and mental hospitals. Non-institutional group homes include college dormitories, military barracks, group homes, missions, and shelters. In total, in Upper Gwynedd there are 198 persons living in group quarters; 173 in institutionalized group quarters and 25 in non-institutionalized quarters.

8. Housing

The Township's housing stock has been increasing steadily, according to the US Census Bureau and depicted on Table 9. During the 1980s the Township witnessed about a one-third gain in housing units (from 3,268 in 1980 to 4,358 in 1990, for a 33.4% increase) and continued this pattern of growth through the 1990s. The Township's housing stock growth outpaced growth for the aggregate of the Subregion and the County in the 1990s (people and housing are tightly correlated).

Interestingly, as it relates to housing and population in Upper Gwynedd percentage gains in housing stock have outpaced percentage gains in population in recent years; the Township experienced a 16.8% increase in its population through the 1990s, but experienced a 26.1% increase in housing stock. This phenomenon is principally due to a national trend toward decreased household sizes, or persons per household family.

²Population in group quarters, according to the Census, "includes all people not living in households. This term includes those people residing in group quarters as of the date on which a particular survey was conducted. Two general categories of people in group quarters are recognized: 1) the institutionalized population which includes people under formally authorized supervised care or custody in institutions at the time of enumeration (such as correctional institutions, nursing homes, and juvenile institutions) and 2) the non-institutionalized population which includes all people who live in group quarters other than institutions (such as college dormitories, military quarters, and group homes). The non-institutionalized population includes all people who live in group quarters other than institutions." See glossary of definitions, www.census.gov

9. Units in Structure

An analysis of the type of units in the Township and its environs is important in forming an understanding of the character of the community. A majority of Upper Gwynedd's housing stock is single-unit detached, 60%, though the total percentage of single-unit detached units has declined over the past decade.

The Township has gained a significant number (529) of one-unit attached units (e.g. townhouses) over the past decade, a 97.2% gain over 10 years. The Subregion and the County also witnessed increases in this housing type, but not as great as Upper Gwynedd's.

10. Housing Tenure

A majority of the housing stock in the Upper Gwynedd Subregion and the County overall is comprised of owner occupied units. Upper Gwynedd Township has 81% of the housing stock being owner occupied. The communities in the Subregion are more reflective of the County's general proportion of rental stock where approximately one-quarter of the housing stock is renter occupied. The total of the owner-occupied units is a very high 80.9%³, which is significantly higher than the 73.5% for Montgomery County. The percent of renter occupied units presents itself as a relatively low percentage in Upper Gwynedd compared to other municipalities.

11. Housing Vacancy

In 2000, the overall vacancy rate for Upper Gwynedd Township was 2.8%, in 1990 the vacancy rate was 4.9% for all units representing a nearly 28% decrease in the vacancy rate over 10 years. Upper Gwynedd's vacancy rate at 2.8% is below both the Subregion's average and the County's overall rate.

³Numbers vary slightly because of rounding.

12. Household Composition

Household composition information for Upper Gwynedd and Montgomery County has been provided in Table 14. Households can be comprised of family households (families), where related individuals occupy a single unit, or non-family households, which consist of all people who occupy a housing unit. Non-family households (households) can be comprised of a single person, while family households (families) cannot.

In 2000, Upper Gwynedd was reported to have 5,341 households, 75% of those were family households (families) and 25% were non-family households. Married couple family households were the largest component of all households in 2000 at 65.3%, while female head of household, no husband present, with children under 18 made up the smallest component of households at 3.5%.

The average household size in 2000 in Upper Gwynedd was reported to be 2.63, slightly larger than the County's average.

13. Age of Housing Stock

A majority of the housing stock in the Township was built in the 1970s and 1980s (nearly 45%). Slightly over 21% of the housing has been constructed since 1990, and only 22 units are reported to have over 1 person per room, a measure often used to indicate overcrowding in units.

14. Housing Value and Rent

The median value for owner occupied housing in Upper Gwynedd in 2000 was reported to be \$176,600, which represents a middle value when compared to the medians for the other communities adjacent to Upper Gwynedd. While Upper Gwynedd's median housing value was midway between the highest and lowest of the adjacent communities in the Subregion, it was just over 9% greater than the County's reported median.

Interestingly, the Upper Gwynedd Subregion contained the three municipalities with the highest contract rent in Montgomery County: Lower Gwynedd Township had the highest rent at \$1,173, Whitpain came in second with a monthly median rent of \$1,047, and Upper Gwynedd was third in the County with a median contract rent of \$875.

15. Household and Family Income

At \$71,078 the median household income in 1999 in Upper Gwynedd Township was greater than that found in every County in the Philadelphia (PA side only) Metropolitan Region. Upper Gwynedd's household income ranked 13th highest of the 62 municipalities in Montgomery County and 5th highest of the 10 municipalities comprising the Upper Gwynedd Subregion.

Generally speaking, family income is higher than household income and this holds true for each geography under study in this report. This is in part a function of single person households, i.e. one wage earner occupying one household, where families (as defined by the Census) require that there be two or more related individuals, and therefore potentially more wage earners per unit. Upper Gwynedd's family income at \$81,371 is the 12th highest in Montgomery County and is the 5th highest in the Subregion. Upper Gwynedd went from the 6th highest household income in Montgomery County in 1989 to the 13th in 1999.

While caution should be used comparing income over time, such an examination can be useful for highlighting relationships in the data. In this instance, while incomes have grown for the Township, the municipalities in the Subregion and the County, as one would anticipate the County's rate of increase outpaced that of Upper Gwynedd Township in both household and family income.

16. Employment and Industry

According to the 2000 Census, 70.0% of Upper Gwynedd Township's population is in the labor force; 30.0% is not and 0.10% is in the armed forces. This distribution is similar to that found in Bucks, Chester and Montgomery Counties.

A vast majority of those residents in the civilian labor force are employed. Upper Gwynedd's unemployment rate at 2.3% of the civilian labor force is lower than the County and every other community under study except for Worcester and Hatfield Townships and Lansdale Borough.

The distribution of resident's employment by industry type is found in Figure 9. The top five industries employing residents of Upper Gwynedd Township include:

- a. Manufacturing - 25.2%;

- b. Educational, health and social services - 19.1%;
- c. Professional, scientific, management, administrative, waste management service - 12.8%;
- d. Retail trade - 11.4%; and
- e. Finance, insurance, real estate, rental and leasing - 9.3%.

While manufacturing is the industry employing the single greatest percentage of residents in the Township, this is not the case for the County. In fact, educational, health and social services is a more important industry for the County overall, though manufacturing does maintain the number two spot.

17. Journey to Work

When compared to Montgomery County, residents of Upper Gwynedd Township are more likely to commute to their place of employment via their own car, truck or van. Public transportation is not readily utilized for commuting by residents of the Township, Subregion or the County, though residents in Upper Gwynedd are more likely than residents in the Subregion to use public transportation. In Upper Gwynedd Township 3.0% of the residents rely on railroad transportation, which equals the County. 3.1% of the Township residents (in the work force) work at home, which is slightly less than the 3.6% for the County.

Figure 10 presents commuting times for residents of the Township, the Subregion and Montgomery County. As can be seen, the patterns are nearly identical with just about 60% of the residents of each area traveling less than one-half hour to work.

18. Place of Work

Residents of Upper Gwynedd are slightly more likely to work in Montgomery County than are residents of the Subregion overall or the County as a whole.

Table 26a presents more specific data on where residents of Upper Gwynedd commute for their jobs. Upper Gwynedd Township itself was home to the jobs of 16.8% of the employed residents in the Township in 2000. The City of Philadelphia was the second most important destination for jobs by residents in Upper Gwynedd.

Table 5-1
Place of Employment for Residents of Upper Gwynedd
in Rank Order (Top 10), 2000

<u>Municipality</u>	<u>Number</u>	<u>Percentage</u>	<u>Rank</u>
Upper Gwynedd Township	1,292	16.8%	1
Philadelphia City	637	8.3%	2
Lansdale Borough	537	7.0%	3
Montgomery Township	394	5.1%	4
Whitpain Township	342	4.5%	5
Hatfield Township	304	4.0%	6
Upper Dublin Township	257	3.3%	7
Lower Gwynedd Township	242	3.2%	8
Horsham Township	237	3.1%	9
Upper Merion Township	210	2.7%	10

19. Workers in Upper Gwynedd Township by Place of Residence

Of the total 13,984 ⁴ jobs counted in 2000, 1,292 or 9.2% belonged to people who also live in Upper Gwynedd. Philadelphia was the source for the second largest group of workers in the Township. Interestingly, most of the top 20 locations are in Montgomery County.

It should be noted that there is a virtual reverse commute correlation between place of employment for Township residents and workers within Upper Gwynedd. Eight of the top ten appear in both lists and in nearly identical order (see Tables 26a and 26b).

20. Jobs

An important indicator of economic vitality for a community is the number and growth in jobs in that community. What follows below is a presentation of the number (estimated and forecasted by the Delaware Valley Regional Planning Commission) of *jobs in each area*.

⁴Note that the Census determined number of jobs and the DVRPC estimates discussed below vary for Upper Gwynedd in 2000 by 516, with the DVRPC estimates being higher.

Upper Gwynedd had 13,030 jobs in 1990 and it was expected that the Township would increase that number by 1,470 by the year 2000, representing an 11.3% increase over 10 years. After that continued growth is anticipated, though at a slightly more modest rate - the Delaware Valley Regional Planning Commission forecasts that Upper Gwynedd will increase the number of jobs in the Township by 7.6% from 2000 to 2010 and another 7.4% from 2010 to 2020. By 2010 Upper Gwynedd is forecasted to have 15,600 jobs, which ranks behind Montgomery, Whitpain and Hatfield Townships within the region.

It is important to note that forecasts are predicated on existing conditions and recent history; changes nationally and/or at the local level can, of course, alter these anticipated outcomes for job growth and loss.

The Upper Gwynedd Subregion includes 3 of the top 10 employment centers in the County; Montgomery Township, Whitpain Township and Hatfield Township. In Year 2000 Upper Gwynedd ranked 12th out of the 62 municipalities in the County in terms of numbers of jobs within its boundaries; in 2025 it is expected to move to 11th place.

A major reason Upper Gwynedd ranks among the top employment centers in the County is because of Merck & Company's 400 acre facility in the Township. Merck & Company, the largest single employer in Montgomery County⁵, provides jobs for 8,600 workers in two locations in the County. The larger location, employing 7,400 people, is situated in Upper Gwynedd Township.

In addition to being the largest employer in Montgomery County, Merck has grown to become the seventh largest private sector employer in the State (as of 2003). According to its Community Focus Newsletter, Merck does business with local suppliers within 15 miles of West Point. In 2002, Merck contracted with more than 500 local companies for \$170 million worth of supplies and services.

⁵"Largest Private Sector Montgomery County Employers." Montgomery County Planning Commission. See: <http://www.montcopaorg/commerce/employer.htm>

21. Jobs Per Resident Population

Another way of analyzing a community with regard to the numbers of jobs within its borders is to look at the existing job density, i.e. numbers of jobs per resident population. This gives greater clarity in understanding the commercial and residential composition of an area. Here we see that while Upper Gwynedd ranked 11th in terms of jobs in the County when compared directly with other communities, the Township moves to 7th when we take into consideration the job density (for the Top 10 see Table 29).

	<u>Population</u> <u>2000 Census</u>	<u>Jobs 2000</u> <u>Forecast</u>	<u>Jobs Per</u> <u>Resident</u> <u>Population</u>	<u>Rank Within</u> <u>County</u> <u>(N=62)</u>
Upper Gwynedd	14,243	14,500	1.02	7

Chapter 6

DEMOGRAPHIC PROFILE

The following report presents selected population and housing characteristics for Upper Gwynedd Township, and when applicable, data for the adjoining municipalities and the County are included in order to enable comparisons with regional trends. Data were obtained from various sources but primarily consist of the US Department of Commerce, Bureau of the Census' Decennial Census. Other data sources include the Delaware Valley Regional Planning Commission and the Montgomery County Planning Department.

The purpose of this report is to highlight past and future growth patterns for purposes of community planning into the future.

POPULATION

This section provides information on population in Upper Gwynedd Township, the Upper Gwynedd Subregion that consists of the boroughs of Hatfield, Lansdale and North Wales, and the Townships of Hatfield, Lower Gwynedd, Montgomery, Towamencin, Whitpain, Worcester and Upper Gwynedd, and for the whole of Montgomery County.

As can be seen from TABLE 1 below, Upper Gwynedd's population has been increasing steadily since the 1950s with the greatest percentage gains realized in the 1950s, when the Township more than doubled its population. In 2000, the Census counted 14,243¹ persons in the Township, for an increase of 2,046 residents (16.8 percent) over the 10 years since the 1990 Census.

TABLE 1: Upper Gwynedd, Population and Percentage Change, 1950 – 2000

Year	Population	Numeric Change (previous Census)	Percentage Change (previous Census)
1950	2,164	-	-
1960	4,661	2,497	115.40%
1970	6,856	2,195	47.10%
1980	9,487	2,631	38.40%
1990	12,197	2,710	28.60%
2000	14,243	2,046	16.80%

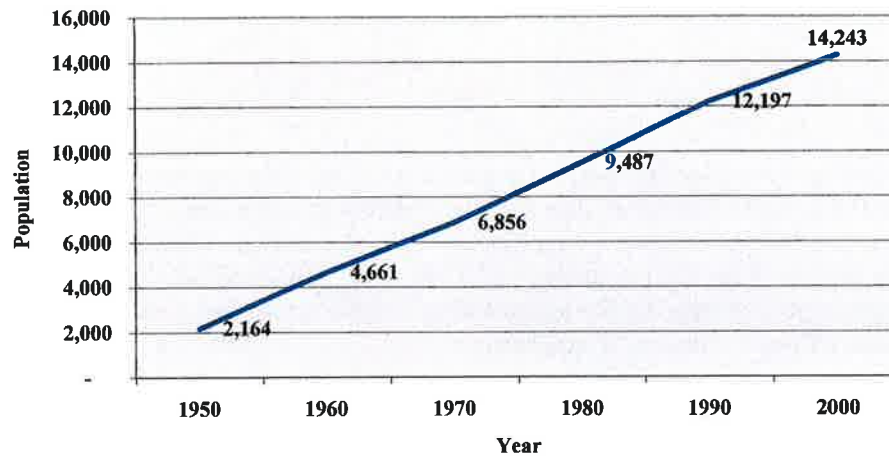
Sources:

1950-1970 data from U.S. Census as shown in Figure iv-1 of Upper Gwynedd Township Comprehensive Plan, 1971

1980 data from Penn State Data Center, U.S. Census, as provided on Montgomery County website

1990 and 2000 data: U.S. Census

¹ Of the 14,243 residents in 2000, 196, or 1.4 percent, lived in Census defined "group quarters."

FIGURE 1: Population, 1950 – 2000, Upper Gwynedd Township

Source: US Census, 1950 - 2000

While Upper Gwynedd experienced a steady increase in population since the doubling of residents in the 1950s, the municipalities comprising the Subregion witnessed a wide variety of gains and losses. TABLE 2 below depicts population information for Upper Gwynedd and the Upper Gwynedd Subregion as well as for Montgomery County from 1950² through the 2000 Census.

**TABLE 2: Population and Percentage Change
Upper Gwynedd Township, the Upper Gwynedd Subregion
and Montgomery County, 1950-2000**

Municipality					% Change		% Change		% Change	
	1950	1960	1970	1980	1970-1980	1980-1990	1980-1990	1990-2000	1990-2000	1990-2000
Upper Gwynedd Twp.	2,164	4,661	6,856	9,487	38.4%	12,197	28.6%	14,243	16.8%	
Hatfield Boro.	1,624	1,941	2,385	2,533	6.2%	2,650	4.6%	2,605	-1.7%	
Hatfield Twp.	3,101	5,759	8,613	13,411	55.7%	15,439	15.1%	16,712	8.2%	
Lansdale Boro.	9,762	12,612	18,451	16,526	-10.4%	16,362	-1.0%	16,071	-1.8%	
L. Gwynedd Twp.			6,361	6,902	8.5%	9,958	44.3%	10,422	4.7%	
Montgomery Twp.	1,566	2,700	3,936	5,718	45.3%	12,179	113.0%	22,025	80.8%	
North Wales Boro.	2,998	3,673	3,911	3,391	-13.3%	3,802	12.1%	3,342	-12.1%	
Towamencin Twp.	1,604	3,724	4,738	11,112	134.5%	14,167	27.5%	17,597	24.2%	
Whitpain Twp.			9,295	11,772	26.6%	15,660	33.0%	18,562	18.5%	
Worcester Twp.			4,243	4,661	9.9%	4,686	0.5%	7,789	66.2%	
U. Gwynedd Subregion			68,789	85,513	24.3%	107,100	25.2%	129,368	20.8%	
Montgomery Co.	353,068	516,682	624,080	643,621	3.1%	678,193	5.4%	750,097	10.6%	

Sources:

1950-1970 data from U.S. Census as shown in Figure iv-1 of Upper Gwynedd Township Comprehensive Plan, 1971

1980 data from Penn State Data Center, U.S. Census, as provided on Montgomery County website

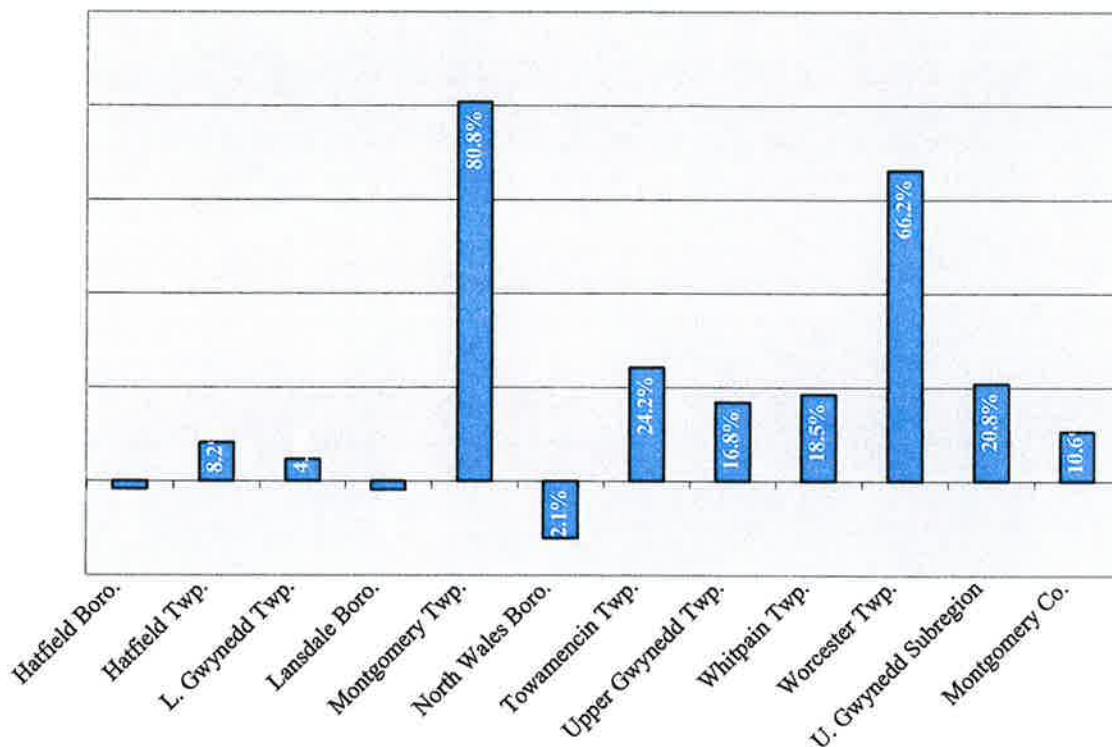
1990 and 2000 data: U.S. Census

² Data are missing for some areas.

As shown in TABLE 2, Montgomery County as a whole saw a decade of growth throughout the 1990s (a 10 percent increase in population); in fact, there were nearly 72,000 more Montgomery County residents in 2000 than resided there in 1990, according to the Census Bureau. The Upper Gwynedd Subregion also experienced growth (20.8%) and, as a whole, grew at a faster pace than did the Township (at 16.8 percent) and the County (10.6%) through the 1990s. This is largely attributable to the increases realized in Montgomery and Worcester Townships, clearly evident in FIGURE 2 below, but also because of gains in Towamencin, Whitpain, Upper Gwynedd and to a lesser degree Hatfield and Lower Gwynedd Townships. The boroughs of the Subregion, on the other hand, experienced a loss of population, with North Wales losing the greatest percentage of its population throughout the 1990s; a pattern familiar to many of the older boroughs in Pennsylvania.

With the exception of the Boroughs and the County, the municipalities comprising the Subregion grew at rates exceeding National growth: From 1990 to 2000, the US population grew by 13.2 percent, the largest single growth in population between any two Census years³.

FIGURE 2: Percentage Change in Population by Area, 1990 – 2000



Source: US Bureau of the Census, 1990 & 2000.

³ *Population Change and Distribution, Census Brief 2000. April, 2001. Note: With regard to the percentage increase between Census years, the Census footnotes this claim with the following statement: "This increase may be caused by changes in Census coverage, as well as births, deaths and net immigration." (p.1)*

Population Forecasts:

The Delaware Valley Regional Planning Commission prepared population forecasts for each MCD (minor civil division) in the DVRPC region. TABLE 3 below presents the forecasts for Upper Gwynedd Township, the Upper Gwynedd Subregion and Montgomery County to 2025.

According to those forecasts, Upper Gwynedd can anticipate continued growth through the next 25 years, to 2025, with a majority of that growth occurring through 2010. Only Montgomery and Worcester Townships are expected to grow at a pace exceeding Upper Gwynedd's. The County overall will also continue to gain population, though more moderately than Upper Gwynedd through 2010.

TABLE 3: Population Forecasts to 2025
Upper Gwynedd Township, the Upper Gwynedd Subregion and
Montgomery County, 2000 – 2025

Area Name	2000 Census population	2005 Forecast	2010 Forecast	2015 Forecast	2020 Forecast	2025 Forecast
Hatfield Borough	2,605	2,610	2,560	2,500	2,500	2,510
Hatfield Township	16,712	17,430	17,670	18,370	18,970	19,320
Lansdale Borough	16,071	16,030	15,920	15,560	15,500	15,490
Lower Gwynedd Township	10,422	10,920	11,410	11,700	12,080	12,210
Montgomery Township	22,025	24,320	25,290	26,220	27,100	28,210
North Wales Borough	3,342	3,300	3,250	3,250	3,210	3,220
Towamencin Township	17,597	18,510	19,400	20,190	20,980	21,740
Upper Gwynedd Township	14,243	15,410	16,050	16,140	16,280	16,430
Whitpain Township	18,562	18,970	19,860	20,740	21,580	22,480
Worcester Township	7,789	8,910	9,580	10,440	11,430	12,320
Upper Gwynedd Subregion	129,368	136,410	140,990	145,110	149,630	153,930
Montgomery County, PA	750,097	776,340	797,990	818,210	838,700	857,030
Area Name	2000-2010 Absolute Change	2000- 2010 Percent Change	2010- 2020 Absolute Change	2010- 2020 Percent Change	2000-2025 Absolute Change	2000- 2025 Percent Change
Hatfield Borough	(45)	-1.7%	(60)	-2.3%	(95)	-3.6%
Hatfield Township	958	5.7%	1,300	7.4%	2,608	15.6%
Lansdale Borough	(151)	-0.9%	(420)	-2.6%	(581)	-3.6%
Lower Gwynedd Township	988	9.5%	670	5.9%	1,788	17.2%
Montgomery Township	3,265	14.8%	1,810	7.2%	6,185	28.1%
North Wales Borough	(92)	-2.8%	(40)	-1.2%	(122)	-3.7%
Towamencin Township	1,803	10.2%	1,580	8.1%	4,143	23.5%
Upper Gwynedd Township	1,807	12.7%	230	1.4%	2,187	15.4%
Whitpain Township	1,298	7.0%	1,720	8.7%	3,918	21.1%
Worcester Township	1,791	23.0%	1,850	19.3%	4,531	58%
Upper Gwynedd Subregion	11,622	9.0%	8,640	6.1%	24,562	19.0%
Montgomery County, PA	47,893	6.4%	40,710	5.1%	106,933	14.3%

Source: Population and Employment Forecasts, 2000 – 2025, 9-County DVRPC Region. *The Delaware Valley Regional Planning Commission, Publication No. 73, March 2002.*

Characteristics of Population:**Age of Population**

As TABLE 4 and FIGURE 3 below demonstrate, the age distributions for the Township and the County are largely similar, with the biggest differences found in the age groups commonly termed “middle age,” i.e. those between the ages of 35 and 54. Upper Gwynedd Township is slightly older than the County as a whole; the median age in 2000 for Upper Gwynedd was 39.9, while the County was slightly younger at 38.2. Interestingly, while Upper Gwynedd’s median age is older than the County’s, the proportion of school-aged population (5-17 years of age) is slightly larger. The County, on the other hand, has a slightly larger percentage of very young children (0-4 years of age) than the Township, 6.3% and 5.5% respectively.

The 65 and older group, which includes the three intervals of 65 –74, 75 – 84 and 85+, comprises almost 13 percent of the Township’s total population and nearly 15 percent of the County’s. The Township’s greater percentage of middle aged adults and school aged children may indicate that Upper Gwynedd is comprised generally of families, with parents in the 35-54 year age group and children in the 0-17 years age group.

**TABLE 4: Age Cohorts as a Percentage of Total Population,
Upper Gwynedd Township and Montgomery County, 2000**

Age Group	Upper Gwynedd		Montgomery County	
	Number	Percent	Number	Percent
0-4	782	5.5%	47,290	6.3%
5-17	2,601	18.3%	133,855	17.8%
18-24	889	6.2%	53,089	7.1%
25-34	1,679	11.8%	100,931	13.5%
35-44	2,474	17.4%	127,953	17.1%
45-54	2,541	17.8%	106,735	14.2%
55-64	1,448	10.2%	68,447	9.1%
65-74	889	6.2%	55,562	7.4%
75-84	704	4.9%	41,518	5.5%
85+	236	1.7%	14,717	2.0%
TOTAL	14,243	100.0%	750,097	100.0%

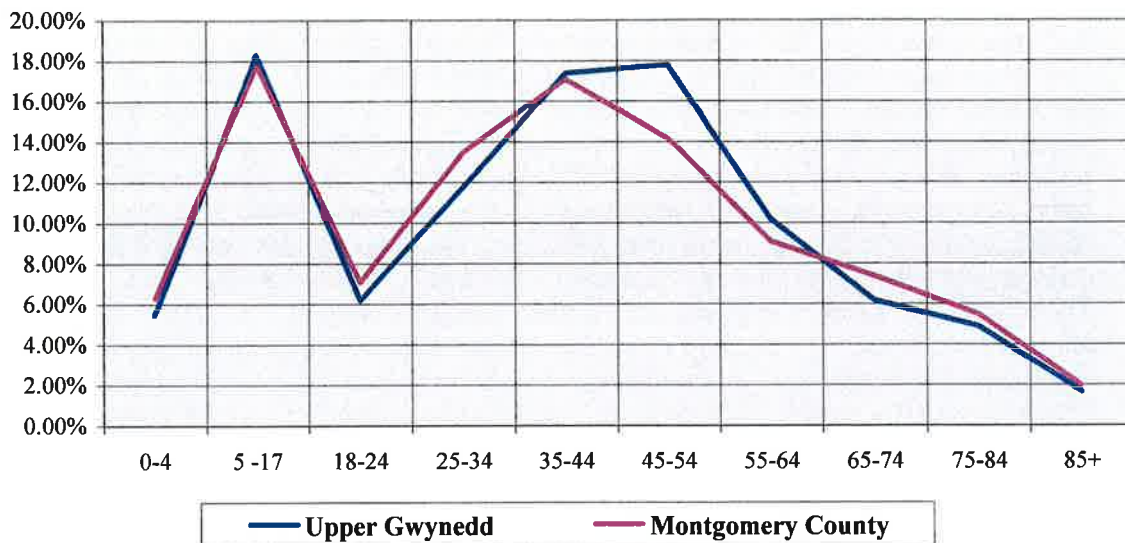
**Median Age in
2000:**

Upper Gwynedd:
39.9

Montgomery Co.:
38.2

Sources 1950-1970 data from U.S. Census as shown in Figure iv-1 of Upper Gwynedd Township Comprehensive Plan, 1971. 1980 data from Penn State Data Center, U.S. Census, as provided on Montgomery County website 1990 and 2000 data: U.S. Census

Montgomery County and the Township both had higher median ages than did the Nation, which had a median age of 35.3 years in 2000.

FIGURE 3: Age Cohorts as a Percentage of Total Population, Upper Gwynedd Township and Montgomery County, 2000

Source: US Census, 2000

Another important way of looking at age distributions in a community is to compare changes over time. TABLE 5 depicts population and percentage change for age cohorts in 1990 and 2000 for the Township, the Upper Gwynedd Subregion, and the County. As can be seen, the only geography to lose population in the 0 – 4 age group is Upper Gwynedd Township, which showed a decline of 13.3 percent since 1990. The Subregion as a whole gained over 11 percent in that category, while the County gained slightly under 3 percent. The school-aged population (5 to 17 year olds) witnessed gains in all geographies: a 10.2 percent gain for Upper Gwynedd, a 33.5 percent gain for the Subregion, and a 25.5% gain for the County. Overall, the largest percentage gain in population by age cohort for all geographies was the “85+” group in Upper Gwynedd, which more than doubled in size over 10 years.

TABLE 5: Population by Age Cohorts and Percent Change
U. Gwynedd Township, U. Gwynedd Region, and Montgomery Co., 1990 – 2000

Years	Upper Gwynedd Township			Upper Gwynedd Subregion			Montgomery County		
	1990	2000	% Change 1990-2000	1990	2000	% Change 1990-2000	1990	2000	% Change 1990-2000
0-4	902	782	-13.3%	7,689	8,548	11.2%	46,040	47,290	2.7%
5-17	2,361	2,601	10.2%	17,964	23,973	33.5%	106,692	133,855	25.5%
18-24	956	889	-7.0%	8,604	7,832	-9.0%	59,695	53,089	-11.1%
25-34	1,881	1,679	-10.7%	18,644	16,379	-12.1%	117,207	100,931	-13.9%
35-44	2,454	2,474	0.8%	18,192	23,100	27.0%	104,978	127,953	21.9%
45-54	1,480	2,541	71.7%	11,943	19,587	64.0%	74,341	106,735	43.6%
55-64	882	1,448	64.2%	9,381	11,891	26.8%	67,182	68,447	1.9%
65-74	777	889	14.4%	8,065	8,769	8.7%	59,243	55,562	-6.2%
75-84	394	704	78.7%	4,935	6,688	35.5%	32,193	41,518	29.0%
85+	110	236	114.5%	1,614	2,601	61.2%	10,540	14,717	39.6%
TOTAL	12,197	14,243	16.8%	107,031	129,368	20.9%	678,111	750,097	10.6%

Source: US Census Bureau, 1990 and 2000

Nationally, the fastest growing age cohorts were those aged 45 to 54, primarily because the “baby boom” generation entered these cohorts in the ten years between 1990 and 2000. This is somewhat different for the Township, where the fastest growing age cohort were those aged 85 and older,⁴ but is consistent with the patterns in the Subregion and the County.

Select Characteristics of Population:

Gender

The distribution of the population by gender is approximately equal for all geographies under study, as can be seen in TABLE 6 below.

**TABLE 6: Total Population and Population by Gender
Upper Gwynedd, the Upper Gwynedd Subregion and Montgomery County, 2000**

	Total	Male		Female	
	Population	No.	Percent	No.	Percent
U. Gwynedd Township	14,243	6,826	47.9%	7,417	52.1%
Hatfield Borough	2,605	1,273	48.9%	1,332	51.1%
Hatfield Township	16,712	8,389	50.2%	8,323	49.8%
Lansdale Borough	16,071	7,738	48.1%	8,333	51.9%
L. Gwynedd Township	10,422	4,686	45.0%	5,736	55.0%
Montgomery Township	22,025	10,632	48.3%	11,393	51.7%
North Wales Borough	3,342	1,666	49.9%	1,676	50.1%
Towamencin Township	17,597	8,363	47.5%	9,234	52.5%
Whitpain Township	18,562	8,947	48.2%	9,615	51.8%
Worcester Township	7,789	3,781	48.5%	4,008	51.5%
U. Gwynedd Subregion	129,368	62,301	48.2%	67,067	51.8%
Montgomery Co.	750,097	362,554	48.3%	387,543	51.7%

Source: US Census, 2000.

Race

The racial distribution of the Township, shown in TABLE 7, is similar to the County’s overall, with some variations in percentage of African Americans and Asians. The racial composition of the Township is also highly reflective of the Subregion’s, indicating that the municipalities comprising the Subregion are largely similar in their racial composition.

⁴ This could be symptomatic of an age restricted development being constructed in the Township, which would, of course, draw an older population and shift the Township’s age distribution.

TABLE 7: Population by Race
U. Gwynedd Twp. the Upper Gwynedd Subregion and Montgomery Co., 2000

	Total Races	White*		Black- /African American*		American- Indian- /Alaska Native*		Asian*		Native Hawaiian/ Other Pac. Islander*		Some Other Race*	
	#	#	%	#	%	#	%	#	%	#	%	#	%
U. Gwynedd Twp.	14,389	12,462	86.6%	610	4.2%	38	0.3%	1,183	8.2%	4	0.0%	92	0.6%
Hatfield Boro.	2,667	2,177	81.6%	58	2.2%	31	1.2%	338	12.7%	2	0.1%	61	2.3%
Hatfield Twp.	17,064	14,065	82.4%	697	4.1%	102	0.6%	1,897	11.1%	13	0.1%	290	1.7%
Lansdale Boro.	16,356	13,911	85.1%	753	4.6%	66	0.4%	1,373	8.4%	33	0.2%	220	1.3%
L. Gwynedd Twp.	10,545	9,130	86.6%	872	8.3%	38	0.4%	453	4.3%	3	0.0%	49	0.5%
Montgomery Twp.	22,264	19,020	85.4%	911	4.1%	69	0.3%	2,132	9.6%	8	0.0%	124	0.6%
North Wales Boro.	3,407	3,066	90.0%	195	5.7%	18	0.5%	74	2.2%	8	0.2%	46	1.4%
Towamencin Twp.	17,849	15,736	88.2%	709	4.0%	71	0.4%	1,188	6.7%	19	0.1%	126	0.7%
Whitpain Twp.	18,744	16,144	86.1%	925	4.9%	59	0.3%	1,524	8.1%	1	0.0%	91	0.5%
Worcester Twp.	7,857	7,229	92.0%	200	2.5%	14	0.2%	376	4.8%	9	0.1%	29	0.4%
U. Gwynedd Subregion	131,142	112,940	86.1%	5,930	4.5%	506	0.4%	10,538	8.0%	100	0.1%	1,128	0.9%
Montgomery Co.	759,566	655,447	86.3%	60,052	7.9%	2,798	0.4%	32,767	4.3%	527	0.1%	7,975	1.0%

*Alone or in combination with one or more other races

Source: US Bureau of the Census, 2000.

Educational Attainment

Nearly 70 percent of the residents of Upper Gwynedd Township and just over 61 percent of the County's residents 25 years and over have had at least some college education, i.e. "some college," a "bachelor's degree", or "beyond a bachelor's degree" (such as Masters, Ph.D. JD, MD, etc.). This is considerably higher than the National pattern, where 51.7% of the population has had at least some college and beyond. Nationally 15.5% of the population received their Bachelor's degree and another 8.9 completed a graduate or professional degree. Here again, the patterns existing in the Township, where 28.4% of the population received a bachelor's degree and another 18.1% a graduate or professional degree, and the County, where 23.1% received a bachelor's degree and another 15.1% a graduate or professional degree, indicates that the local population, as a whole, has more education than that found in the National experience.

TABLE 8:
Education, 2000
Upper Gwynedd Township, Montgomery County, and US

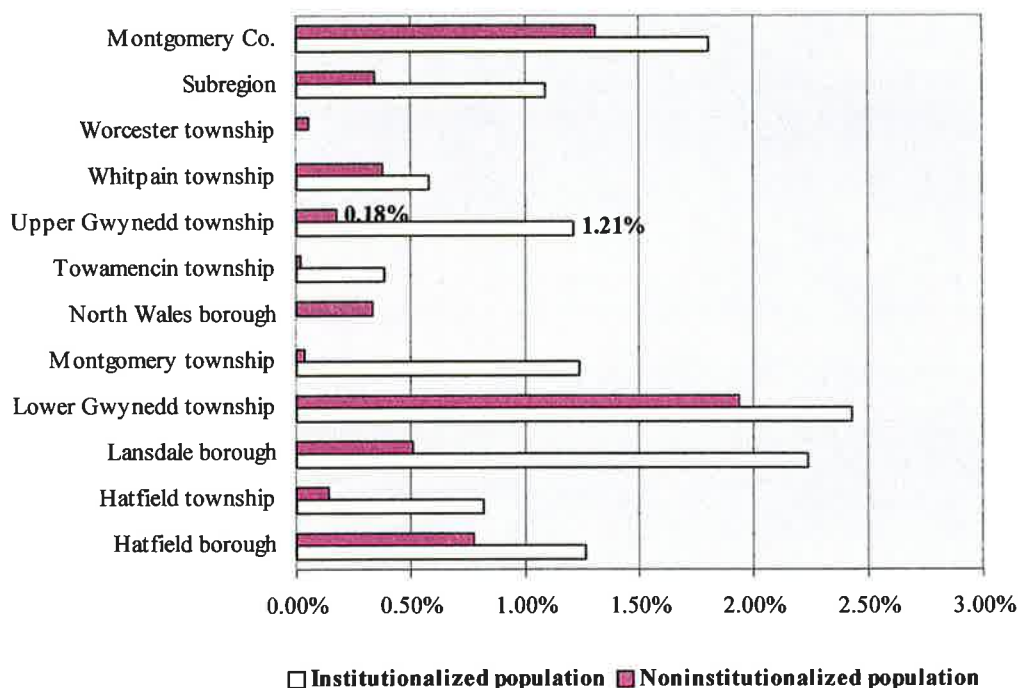
	Upper Gwynedd Township	Montgomery County	US
Total Population Over 25 Years of Age	10,000	515,871	182,211,639
Less than HS Degree	7.7%	11.5%	19.6%
High school graduate (includes equivalency)	22.4%	27.3%	28.6%
Some College	23.4%	22.5%	27.3%
Bachelor's degree	28.4%	23.1%	15.5%
Beyond Bachelor's Degree	18.1%	15.7%	8.9%

Source: US Bureau of the Census, 2000

Group Homes

Another indicator of community character is the presence of group homes⁵. Figure 4 below illustrates the percentage of group homes in Upper Gwynedd Township, the Upper Gwynedd Subregion and Montgomery County. The Census classifies group homes into two types: institutional and non-institutional. Institutional group homes include, for example, correctional facilities, nursing homes, and mental hospitals. Non-institutional group homes include college dormitories, military barracks, group homes, missions, and shelters. Upper Gwynedd has 1.4 percent of its total population residing in group homes of both types; this is representative of the region in terms of proportions of total population. In total in Upper Gwynedd there are 198 persons living in group quarters; 173 in institutionalized group quarters and 25 in non-institutionalized quarters.

FIGURE 4: Persons in Group Homes as a percentage of Total Population: Upper Gwynedd Township, the Upper Gwynedd Subregion and Montgomery County, 2000



Source: US Bureau of the Census, 2000.

⁵ Population in group quarters, according to the Census, "includes all people not living in households. This term includes those people residing in group quarters as of the date on which a particular survey was conducted. Two general categories of people in group quarters are recognized: 1) the institutionalized population which includes people under formally authorized supervised care or custody in institutions at the time of enumeration (such as correctional institutions, nursing homes, and juvenile institutions) and 2) the non-institutionalized population which includes all people who live in group quarters other than institutions (such as college dormitories, military quarters, and group homes). The non-institutionalized population includes all people who live in group quarters other than institutions." See glossary of definitions, www.census.gov.

HOUSING

This section of the report details data and information on housing, specifically data related to housing unit counts, housing unit projections, selected housing characteristics, housing value, and housing affordability, where available.

Housing Units

The Township's housing stock has been increasing steadily, according to the US Census Bureau and depicted below on TABLE 9. During the 1980s the Township witnessed about a one-third gain in housing units (from 3,268 in 1980 to 4,358 in 1990, for a 33.4% increase) and continued this pattern of growth through the 1990s, but at a slightly modified rate (26.1% increase over 10 years.)

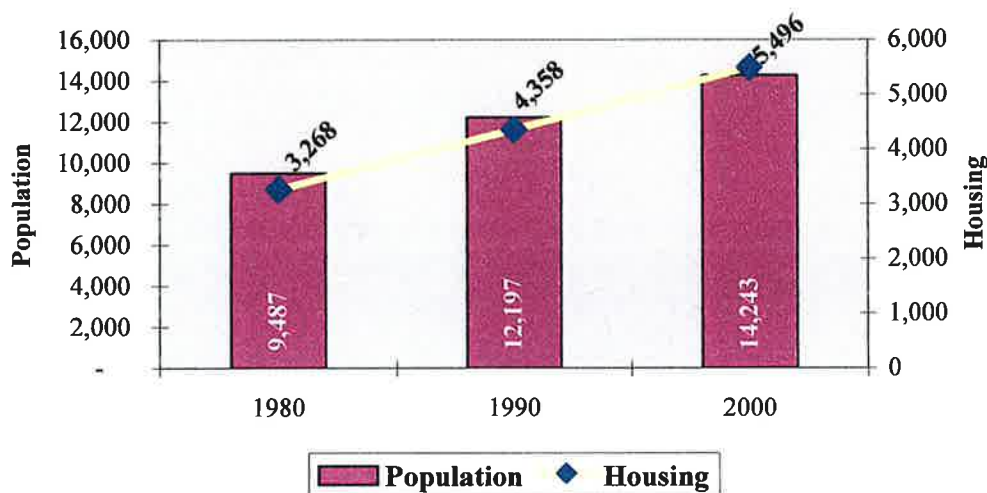
**TABLE 9: Housing Units and Percentage Change
Upper Gwynedd Township, the Upper Gwynedd Subregion
and Montgomery County, 1980 - 2000**

Municipality	1980	1990	#	%	2000	#	%
	Housing Units	Housing Units	Change 1980- 1990	Change 1980- 1990	Housing Units	Change 1990- 2000	Change 1990-2000
Upper Gwynedd Township	3,268	4,358	1,090	33.4%	5,496	1,138	26.1%
Hatfield Borough	1,029	1,172	143	13.9%	1,139	-33	-2.8%
Hatfield Township	5,028	6,087	1,059	21.1%	6,592	505	8.3%
Lansdale Borough	6,476	7,009	533	8.2%	6,893	-116	-1.7%
Lower Gwynedd Township	2,008	3,820	1,812	90.2%	4,360	540	14.1%
Montgomery Township	2,024	4,825	2,801	138.4%	8,053	3,228	66.9%
North Wales Borough	1,283	1,515	232	18.1%	1,330	-185	-12.2%
Towamencin Township	3,966	5,389	1,423	35.9%	7,035	1,646	30.5%
Whitpain Twp.	4,045	5,703	1,658	41.0%	7,305	1,602	28.1%
Worcester Twp.	1,596	1,832	236	14.8%	3,026	1,194	65.2%
U. Gwynedd Subregion	30,723	41,710	10,987	35.8%	51,229	9,519	22.8%
Montgomery County	232,569	265,858	33,289	14.3%	297,434	31,576	11.9%

Source: US Bureau of the Census, 1980 - 2000

The Township's housing stock growth outpaced growth for the aggregate of the Subregion and the County in the 1990s, however, Montgomery, Worcester, Towamencin and Whitpain Townships experienced a greater percentage increase to their housing stock than did Upper Gwynedd. And, as people and housing are tightly correlated, we see that areas that lost population (as described above in the section on population), such as the boroughs in the Subregion, also saw drops in their housing stock: North Wales Borough lost 185 units through the 1990s, while Lansdale followed closely, losing 116 units.

Interestingly, as it relates to housing and population in Upper Gwynedd, FIGURE 4, which plots housing unit and population counts for 20 years (1980 - 2000), reveals that percentage gains in housing stock have outpaced percentage gains in population in recent years: the Township experienced a 16.8% increase in its population through the 1990s, but experienced a 26.1% increase in housing stock. This phenomenon is principally due to a national trend toward decreased household sizes, or persons per household/family.

FIGURE 5: Housing Units and Population, Upper Gwynedd Township, 1980-2000

Source: US Census, 1980, 1990 and 2000

Units in Structure:

An analysis of the type of units in the Township and its environs is important in forming an understanding of the character of the community. Evident from TABLE 10 below is the fact that a majority of Upper Gwynedd's housing stock is single-unit detached, 60 percent, though the total percentage of single-unit detached units has declined over the past decade, from 68.5 percent to 60.0 percent. The County's overall percentage of single-unit detached units has also decreased, though modestly over the 1990s, but the County nevertheless maintains a larger percentage of its housing stock in single detached units than the aggregated Subregion, where just over one-half of the units are single-unit detached.

**TABLE 10: Units in Structure⁶ as a Percentage of Total Units
Upper Gwynedd Township, the Upper Gwynedd Subregion
and Montgomery County, 1990 - 2000**

Housing Type:	U. Gwynedd Township				U. Gwynedd Subregion				Montgomery County			
	2000		1990		2000		1990		2000		1990	
	#	%	#	%	#	%	#	%	#	%	#	%
1-unit Detached	3,298	60.0%	2,986	68.5%	26,595	51.9%	21,724	52.1%	166,543	56.0%	147,424	55.5%
1-unit Attached	1,073	19.5%	544	12.5%	11,822	23.1%	7,814	18.7%	55,745	18.7%	45,933	17.3%
2 to 4 units	252	4.6%	204	4.7%	3,043	5.9%	2,484	6.0%	23,107	7.8%	20,116	7.6%
5 to 9 units	259	4.7%	267	6.1%	2,059	4.0%	1,585	3.8%	9,641	3.2%	8,258	3.1%
10 or more units	596	10.8%	319	7.3%	6,593	12.9%	6,484	15.5%	39,680	13.3%	38,774	14.6%
Mobile Home/Other	18	0.3%	38	0.9%	1,100	2.1%	1,619	3.9%	2,718	0.9%	5,351	2.0%
TOTAL	5,496	100.0%	4,358	100.0%	51,212	100.0%	41,710	100.0%	297,434	100.0%	265,856	100.0%

Sources: U.S. Census, 1990 and 2000

⁶ Housing Type distribution reflects the 1990 Census category breakdown.

As TABLE 11 below shows, the Township has gained a significant number (529) of one-unit attached units (e.g. townhouses) over the past decade, a 97.2 percent gain over 10 years. The Subregion and the County also witnessed increases in this housing type, but not as great as Upper Gwynedd's. Gains were also experienced in the 10 or more unit structures, where the township increased the number of this unit type by 277, or 86.8 percent over 10 years. For each of the geographic areas under study, the mobile home/other category has dropped. This change may be in part due to a reclassification of the mobile home/other category by the US Census from 1990 to 2000.

**TABLE 11: Units in Structure and Percentage Change
Upper Gwynedd Township, the Upper Gwynedd Subregion
and Montgomery County, 1990 - 2000**

	<u>U. Gwynedd Township</u>				<u>U. Gwynedd Subregion</u>				<u>Montgomery County</u>			
			Change				Change				Change	
	2000	1990	#	%	2000	1990	#	%	2000	1990	#	%
Housing Type:												
1-unit Detached	3,298	2,986	312	10.4%	26,595	21,724	4,871	22.4%	166,543	147,424	19,119	13.0%
1-unit Attached	1,073	544	529	97.2%	11,822	7,814	4,008	51.3%	55,745	45,933	9,812	21.4%
2 to 4 units	252	204	48	23.5%	3,043	2,484	559	22.5%	23,107	20,116	2,991	14.9%
5 to 9 units	259	267	(8)	-3.0%	2,059	1,585	474	29.9%	9,641	8,258	1,383	16.7%
10 or more units	596	319	277	86.8%	6,593	6,484	109	1.7%	39,680	38,774	906	2.3%
Mobile Home/Other	18	38	(20)	-52.6%	1,100	1,619	(519)	-32.1%	2,718	5,351	(2,633)	-49.2%

Sources: U.S. Census, 1990 and 2000

Selected Characteristics of Housing

The discussion of selected housing characteristics includes information on housing occupancy, and age and type of structure.

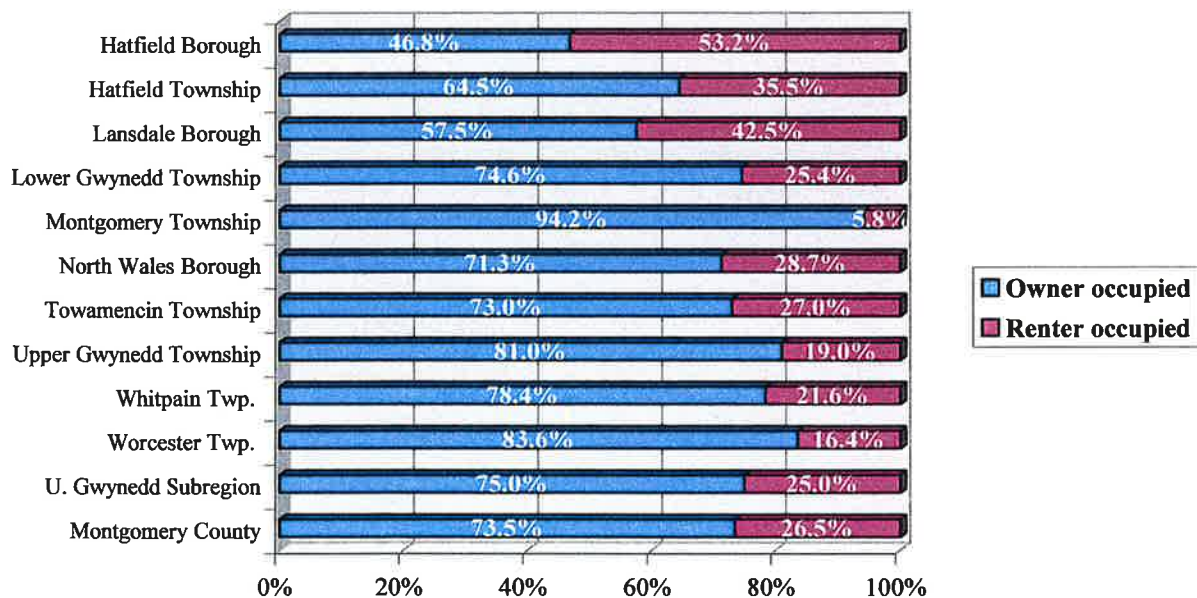
Housing Tenure

With the exception of Hatfield Borough, a majority of the housing stock in the Upper Gwynedd Subregion and the County overall is comprised of owner-occupied units. Montgomery Township had the greatest percentage of owner-occupied units in 2000, followed by Worcester and then Upper Gwynedd, with 81% of the stock being owner-occupied. Renter occupied units comprise a greater percentage of the total housing stock in, as mentioned, Hatfield Borough, but also in Lansdale Borough, and Hatfield Township. The remaining communities in the Subregion are more reflective of the County's general proportion of rental stock where approximately one-quarter of the housing stock is renter occupied. TABLE 12 below provides housing tenure data for Upper Gwynedd, the Upper Gwynedd Subregion and Montgomery County for 2000.

TABLE 12a: Occupied Housing Units by Tenure, Upper Gwynedd Township, the Upper Gwynedd Subregion and Montgomery County

Municipality	Total #	Owner occupied		Renter occupied	
	Occupied Units	Number	% of Total	Number	% of Total
Hatfield Borough	1,106	518	46.8%	588	53.2%
Hatfield Township	6,302	4,065	64.5%	2,237	35.5%
Lansdale Borough	6,620	3,805	57.5%	2,815	42.5%
Lower Gwynedd Township	4,177	3,118	74.6%	1,059	25.4%
Montgomery Township	7,926	7,468	94.2%	458	5.8%
North Wales Borough	1,299	926	71.3%	373	28.7%
Towamencin Township	6,872	5,017	73.0%	1,855	27.0%
Upper Gwynedd Township	5,341	4,325	81.0%	1,016	19.0%
Whitpain Twp.	6,960	5,456	78.4%	1,504	21.6%
Worcester Twp.	2,896	2,421	83.6%	475	16.4%
U. Gwynedd Subregion	49,499	37,119	75.0%	12,380	25.0%
Montgomery County	286,098	210,233	73.5%	75,865	26.5%

FIGURE 6 below depicts housing tenure by geographic area for 2000.

FIGURE 6: Occupied Housing Units by Tenure, Upper Gwynedd Township, the Upper Gwynedd Subregion and Montgomery County, 2000

Source: US Census, 2000

The total of the owner occupied units is a very high 80.9 percent⁷, which is significantly higher than the 73.5% for Montgomery County. According to the Bureau of the Census, a housing unit is "owner occupied" if the owner or co-owner lives in the unit even if it is mortgaged or not fully paid for. The question asked by the Census is: "Owned by you or someone in this household with a mortgage or a loan?" The unit is also considered owned if it is free and clear of a mortgage. TABLE 12b below presents information on housing tenure by type of structure for Upper Gwynedd in 2000.

**TABLE 12b: Tenure by Units in Structure
Upper Gwynedd Township, 2000**

	Units	Percent Within Category	Percent of Total Units
Total:	5,341		
<u>Owner occupied:</u>	4,322	100.0%	80.9%
1, detached	3,156	73.0%	59.1%
1, attached	924	21.4%	17.3%
2	13	0.3%	0.2%
3 or 4	13	0.3%	0.2%
5 to 9	15	0.3%	0.3%
10 to 19	103	2.4%	1.9%
20 to 49	0	0.0%	0.0%
50 or more	80	1.9%	1.5%
Mobile home	18	0.4%	0.3%
Boat, RV, van, etc.	0	0.0%	0.0%
<u>Renter occupied:</u>	1,019	100.0%	19.1%
1, detached	96	2.2%	1.8%
1, attached	118	2.7%	2.2%
2	37	0.9%	0.7%
3 or 4	164	3.8%	3.1%
5 to 9	207	4.8%	3.9%
10 to 19	193	4.5%	3.6%
20 to 49	45	1.0%	0.8%
50 or more	159	3.7%	3.0%
Mobile home	0	0.0%	0.0%
Boat, RV, van, etc.	0	0.0%	0.0%

Source: US Census, 2000

Since respondents fill in their own land use category, the greatest degree of accuracy is usually in the 1, detached or single family detached, which is to say a single-family house. Other categories are more or less estimates made by the respondents, but probably include the twins or duplexes in the Stonybrook subdivision, and other large number of owner occupied townhouses within the Township. The category of 50 units or more in a structure theoretically could only refer to

⁷ Numbers vary slightly because of rounding.

Brittany Pointe, and while some independent respondents may have included that, it is possible that some of these also reflect the condominium ownership in Gwynedd Club apartments.

Under the renter occupied category, the responses are across the board in terms of type of structure. One unit, attached should mean a twin and 2 units should mean duplex. The counts from 3 to 9 units should mean townhouses, and the balance over 10 or more units per structure should refer to some of the larger apartment complexes, which are not condominiums, and in all probability a number of the residents living in Brittany Pointe.

There is however no question that the percent of renter occupied units presents itself as a relatively low percentage in Upper Gwynedd compared to other municipalities.

Housing Vacancy

In 2000, the overall vacancy rate for Upper Gwynedd Township was 2.8%, in 1990 the vacancy rate was 4.9% for all units representing a nearly 28 percent decrease in the vacancy rate over 10 years. TABLE 13 presents total housing units, and number, percent and percentage change for occupied and vacant units in 1990 and 2000 for Upper Gwynedd Township.

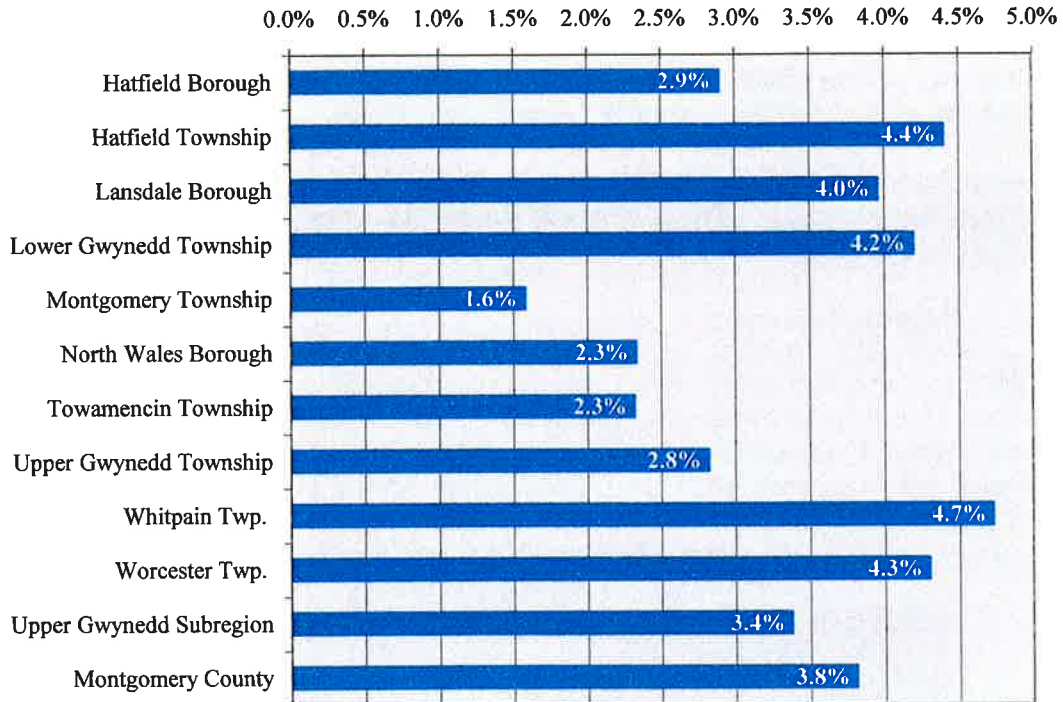
**TABLE 13: Total Units and Vacancy Status
Upper Gwynedd Township, 2000**

	1990	2000	Change 1990 - 2000	
			#	%
Total Housing Units	4,358	5,496	1,138	26.1%
Occupied Housing Units	4,143	5,341	1,198	28.9%
Percent Occupied Units	95.1%	97.2%		
Vacant Housing Units	215	155	-60	-27.9%
Percent Vacant Units	4.9%	2.8%		

Source: US Census, 1990 and 2000.

FIGURE 7 below presents vacancy rates for Upper Gwynedd, the municipalities comprising the Upper Gwynedd Subregion and Montgomery County in 2000. Vacancy rates range from a low of 1.6% in Montgomery Township to a high of 4.7% in Whitpain. The County's vacancy rate, at 3.8%, is reflective of the mean vacancy rate for the Upper Gwynedd Subregion, which was computed to be 3.4%. Upper Gwynedd's vacancy rate at 2.8% is below both the Subregion's average and the County's overall rate.

**FIGURE 7: Housing Vacancy Rates,
Upper Gwynedd Township, the Upper Gwynedd Subregion
and Montgomery County, 2000**



Source: US Census, 2000

Household Composition

Household composition information for Upper Gwynedd and Montgomery County has been provided in TABLE 14 below. Households can be comprised of family households (families), where related individuals occupy a single unit, or non-family households, which consist of all people who occupy a housing unit. Non-family households (households) can be comprised of a single person, while family households (families) cannot.

**TABLE 14: Household Composition
Upper Gwynedd Township, 2000**

	Upper Gwynedd		Montgomery County	
	#	%	#	%
Total Households	5,341		286,098	
Family Households	4,007	75.00%	197,640	69.10%
With children under 18	1,800	33.70%	91,569	32.00%
Married Couple Family	3,489	65.30%	163,746	57.20%
With children under 18	1,572	29.40%	75,129	26.30%
Female householder, no husband present	406	7.60%	25,290	8.80%
With children under 18	188	3.50%	12,647	4.40%
Non-family households	1,334	25.00%	88,458	30.90%
Householder living alone	1,133	21.20%	73,213	25.60%
Householder 65 and over	387	7.20%	28,213	9.90%
Average Household Size	2.63		2.54	
Average Family Size	3.08		3.09	

Source: US Bureau of the Census, 2000

In 2000, Upper Gwynedd was reported to have 5,341 households, 75 percent of those were family households (families) and 25 percent were non-family households. Married couple family households were the largest component of all households in 2000 at 65.3 percent, while female head of household, no husband present, with children under 18 made up the smallest component of households at 3.5 percent.

The average household size in 2000 in Upper Gwynedd was reported to be 2.63, slightly larger than the County's average. Family size in Upper Gwynedd, at 3.08 persons per family, was a fraction smaller than the County's at 3.09.

Select Characteristics of Housing, 2000: Upper Gwynedd Township

A majority of the housing stock in the Township was built in the 1970s and 1980s (nearly 45 percent). Slightly over 21 percent of the housing has been constructed since 1990, and the balance prior to 1970. Very few of the Township's units are without plumbing, kitchen or phone service, and only 22 units are reported to have over 1 person per room, a measure often used to indicate overcrowding in units.

TABLE 15
Select Characteristics of Housing, 2000: Upper Gwynedd

<i>Year Structure Built</i>	<i>#</i>	<i>%</i>
1999 to March 2000	15	0.3%
1995 to 1998	416	7.6%
1990 to 1994	730	13.3%
1980 to 1989	1,256	22.9%
1970 to 1979	1,186	21.6%
1960 to 1969	847	15.4%
1940 to 1959	751	13.7%
1939 or earlier	295	5.4%
<i>TOTAL</i>	<i>5,496</i>	<i>100.0%</i>
<i>Plumbing/Kitchen/Telephone</i>		
Lacking complete plumbing	4	
Lacking complete kitchen facilities	4	
No telephone service	9	
<i>TOTAL</i>	<i>17</i>	
<i>Occupants per room</i>		
<i>(universe: occupied housing units)</i>		
1.00 or less	5,319	99.6%
1.01 to 1.50	12	0.2%
1.51 or more	10	0.2%
<i>TOTAL Occupied Units</i>	<i>5,341</i>	<i>100.0%</i>

Housing Value & Rent

The median value for owner occupied housing in Upper Gwynedd in 2000 was reported to be \$176,600, which represents a middle value when compared to the medians for the other communities adjacent to Upper Gwynedd, i.e. communities in the Upper Gwynedd Subregion. Lower Gwynedd had the highest median housing value at \$252,500, followed by Whitpain, which was slightly lower at \$248,600 and then Worcester at \$220,800. The lower values were found in the neighboring boroughs: North Wales, Hatfield and Lansdale. And, while Upper Gwynedd's median housing value was midway between the highest and lowest of the adjacent communities in the Subregion, it was just over 9 percent greater than the County's reported median.

TABLE 16
Housing Value (Owner Occupied): Upper Gwynedd,
the Upper Gwynedd Subregion and Montgomery County, 1999

	Total:	Less than \$100,000	\$100,000 to \$124,999	\$125,000 to \$149,999	\$150,000 to \$174,999	\$175,000 to \$199,999	\$200,000 to \$249,999	\$250,000 to \$299,999	\$300,000 to \$399,999	\$400,000 or more	Median value
Hatfield borough	499	10.6%	29.1%	30.9%	21.0%	6.4%	2.0%	0.0%	0.0%	0.0%	\$ 133,400
Hatfield township	3,750	3.7%	13.2%	26.9%	22.9%	14.3%	14.9%	3.9%	0.2%	0.0%	\$ 156,800
Lansdale borough	3,574	23.7%	29.4%	26.2%	13.5%	4.6%	1.8%	0.7%	0.0%	0.2%	\$ 122,400
Lower Gwynedd twp	2,687	5.7%	8.1%	6.6%	5.4%	8.3%	15.6%	7.2%	13.8%	29.4%	\$ 252,500
Montgomery township	6,435	4.3%	9.6%	12.2%	15.6%	15.6%	21.1%	10.9%	8.0%	2.7%	\$ 188,400
North Wales borough	903	15.7%	24.8%	27.0%	14.0%	3.1%	9.9%	3.4%	1.3%	0.8%	\$ 133,800
Towamencin township	4,354	13.3%	12.1%	11.7%	14.9%	15.9%	21.7%	4.2%	5.3%	0.9%	\$ 171,600
Upper Gwynedd twp	3,986	6.5%	8.0%	16.8%	17.6%	17.1%	15.7%	10.1%	6.1%	2.2%	\$ 176,600
Whitpain township	5,089	3.7%	1.5%	6.3%	7.7%	11.4%	20.0%	16.3%	17.1%	16.0%	\$ 248,600
Worcester township	2,230	7.3%	4.9%	6.5%	11.3%	12.0%	19.1%	13.1%	14.4%	11.3%	\$ 220,800
Subregion	33,507	8.4%	11.3%	14.8%	14.1%	12.6%	16.5%	8.4%	7.7%	6.5%	n/a
Montgomery County	190,477	12.5%	13.6%	17.4%	15.0%	10.6%	11.7%	6.8%	6.1%	6.3%	\$ 160,700

Source: US Bureau of the Census, 2000

TABLE 17 provides information on the median contract rent (contract rent is the monthly rent agreed to or contracted for, regardless of any furnishings, utilities, fees, meals, or services that may be included), and each geography's ranking within the County. Interestingly, the Upper Gwynedd Subregion contained the three municipalities with the highest contract rent in Montgomery County: Lower Gwynedd Township had the highest rent at \$1,173, Whitpain came in second with a monthly median rent of \$1,047, and Upper Gwynedd was 3rd in the County with a median contract rent of \$875. The County's median at \$673 was nearly half of Lower Gwynedd's, the highest rent in the County.

TABLE 17
Contract Rent and Ranking within Montgomery County: Upper Gwynedd, the
Upper Gwynedd Subregion and Montgomery County, 1999

	Median contract rent	Rank within County (n=62)
Hatfield borough	\$ 581	42
Hatfield township	\$ 660	29
Lansdale borough	\$ 613	35
Lower Gwynedd township	\$ 1,173	1
Montgomery township	\$ 820	8
North Wales borough	\$ 564	46
Towamencin township	\$ 758	13
Upper Gwynedd township	\$ 875	3
Whitpain township	\$ 1,047	2
Worcester township	\$ 583	41
Montgomery County	\$ 673	

Source: US Bureau of the Census, 2000

ECONOMIC/SOCIOECONOMIC

The section that follows presents information on household and family income, resident's occupation, journey to work information, and numbers of jobs in Upper Gwynedd Township, the Upper Gwynedd Subregion and Montgomery County.

Household and Family Income

At \$71,078, the median household income in 1999 in Upper Gwynedd Township was greater than that found in every County in the Philadelphia (PA side only) Metropolitan Region (see TABLE 18 below.).

TABLE 18:
Median Household Income by County
in the 5-County Region, 1999

Bucks County,	\$59,727
Chester County,	\$65,295
Delaware County,	\$50,092
Montgomery County,	\$60,829
Philadelphia County,	\$30,746

Source: US Bureau of the Census, SF3, 2000.

In fact, Upper Gwynedd's household Income ranked 13th highest of the 62 municipalities in Montgomery County and 5th highest of the 10 municipalities comprising the Upper Gwynedd Subregion.

TABLE 19:
Household and Family Income and
Ranking within County and Subregion, 1999

	Median household income in 1999	Rank within County	Rank within Subregion	Median family income in 1999	Rank within County	Rank within Subregion
Hatfield borough	\$ 45,975	53	10	52,743	54	10
Hatfield township	\$ 57,247	36	7	68,409	35	7
Lansdale borough	\$ 46,232	52	9	54,891	53	9
Lower Gwynedd township	\$ 74,351	11	4	97,991	4	2
Montgomery township	\$ 78,953	5	2	88,209	8	3
North Wales borough	\$ 54,605	40	8	63,235	40	8
Towamencin township	\$ 66,736	22	6	80,167	13	6
Upper Gwynedd township	\$ 71,078	13	5	81,371	12	5
Whitpain township	\$ 88,933	1	1	103,613	2	1
Worcester township	\$ 77,200	8	3	87,107	9	4
Montgomery Co.	\$ 60,829			72,183		

Source: US Bureau of the Census, 2000.

Staying with household income, we see that Whitpain had the greatest income in Montgomery County, and it follows, the Subregion, reported to be \$88,933 in 1999. Lower Merion and Lower

Moreland Townships (not shown) maintained the number 2 and 3 spots, with household income figures of \$86,373 and \$82,597, respectively.

TABLE 20:
Median Family Income by County
in the 5-County Region, 1999

Bucks County	\$68,727
Chester County	\$76,916
Delaware County	\$61,590
Montgomery County	\$72,183
Philadelphia County	\$37,036

Source: US Bureau of the Census, SF3, 2000.

Generally speaking, family income is higher than household income and this holds true for each geography under study in this report. This is in part a function of single person households, i.e. one wage earner occupying one household, where families (as defined by the Census) require that there be two or more related individuals, and therefore potentially more wage earners per unit. Upper Gwynedd's family income at \$81,371 (refer to Tables 19 and 20 above) is higher than each County in the Philadelphia region (PA only), is the 12th highest in Montgomery County, and is the 5th highest in the Subregion.

While the same three municipalities with the highest household income in the County reappear as the top 3 in terms of family income, the order is varied. Lower Merion Township reports the greatest median family income figure of \$115,694, and is followed by Whitpain with a figure of \$103,613 and then Lower Moreland at \$98,656.

TABLE 21 presents data on household and family income in 1989 (1990 Census) and 1999 (2000 Census) for Upper Gwynedd Township, the Municipalities comprising the Upper Gwynedd Subregion and Montgomery County.

TABLE 21:
Median Household and Family Income in 1989-1999 and Ranking:
Upper Gwynedd Township, the Upper Gwynedd Subregion
and Montgomery County

	Median household income				Median family income			
	Median household income in 1999	Rank within County	Household Income, 1989	Rank within County	Median family income in 1999	Rank within County	Family Income, 1989	Rank within County
Hatfield borough	\$ 45,975	53	\$ 32,879	54	52,743	54	\$ 40,958	51
Hatfield township	\$ 57,247	36	\$ 41,444	38	68,409	35	\$ 46,441	37
Lansdale borough	\$ 46,232	52	\$ 34,987	49	54,891	53	\$ 42,222	45
Lower Gwynedd township	\$ 74,351	11	\$ 56,700	5	97,991	4	\$ 74,870	2
Montgomery township	\$ 78,953	5	\$ 52,193	8	88,209	8	\$ 57,406	9
North Wales borough	\$ 54,605	40	\$ 38,917	43	63,235	40	\$ 44,142	42
Towamencin township	\$ 66,736	22	\$ 48,547	11	80,167	13	\$ 57,262	10
Upper Gwynedd township	\$ 71,078	13	\$ 56,543	6	81,371	12	\$ 61,870	6
Whitpain township	\$ 88,933	1	\$ 60,952	3	103,613	2	\$ 67,090	5
Worcester township	\$ 77,200	8	\$ 47,302	14	87,107	9	\$ 55,000	15
Montgomery Co.	\$ 60,829		\$ 43,720		72,183		\$ 51,353	

Source: U.S. Census, 2000 Summary File 3 (SF 3) - Sample Data and STF-3 from 1990 Census.

Aside from the change in income figures from 1989 to 1999 (and discussed more in relation to TABLE 22 below), TABLE 21 shows the change in income ranking for communities in the Subregion. While similar positions are maintained for a majority of the municipalities across time, there are several noteworthy exceptions: Lower Gwynedd went from having the 5th highest household income in 1989 to the 11th in 1999, Upper Gwynedd went from the 6th highest household income in Montgomery County in 1989 to the 13th in 1999, and Towamencin dropped from 11th place in 1989 to 22nd in 2000. Worcester, on the other hand, climbed to reach the 8th spot in median household income in 1999, from 14th in 1989.

While caution should be used comparing income over time, such an examination can be useful for highlighting relationships in the data. In this instance, TABLE 22 demonstrates that while incomes have grown for the Township, the municipalities in the Subregion and the County, as one would anticipate, the County's rate of increase outpaced that of Upper Gwynedd Township in both household and family income.

TABLE 22:
Median Household and Family Income in 1989-1999 and Percent Change:
Upper Gwynedd Township, the Upper Gwynedd Subregion
and Montgomery County

	Median household income			Median family income		
	1999	1989	% Change 1989-99	1999	1989	% Change 1989- 1999
Hatfield borough	\$ 45,975	\$ 32,879	39.8%	\$ 52,743	\$ 40,958	28.8%
Hatfield township	\$ 57,247	\$ 41,444	38.1%	\$ 68,409	\$ 46,441	47.3%
Lansdale borough	\$ 46,232	\$ 34,987	32.1%	\$ 54,891	\$ 42,222	30.0%
Lower Gwynedd township	\$ 74,351	\$ 56,700	31.1%	\$ 97,991	\$ 74,870	30.9%
Montgomery township	\$ 78,953	\$ 52,193	51.3%	\$ 88,209	\$ 57,406	53.7%
North Wales borough	\$ 54,605	\$ 38,917	40.3%	\$ 63,235	\$ 44,142	43.3%
Towamencin township	\$ 66,736	\$ 48,547	37.5%	\$ 80,167	\$ 57,262	40.0%
Upper Gwynedd township	\$ 71,078	\$ 56,543	25.7%	\$ 81,371	\$ 61,870	31.5%
Whitpain township	\$ 88,933	\$ 60,952	45.9%	\$ 103,613	\$ 67,090	54.4%
Worcester township	\$ 77,200	\$ 47,302	63.2%	\$ 87,107	\$ 55,000	58.4%
Montgomery Co.	\$ 60,829	\$ 43,720	39.1%	\$ 72,183	\$ 51,353	40.6%

Source: US Bureau of the Census, 1990 and 2000

Nationally, household income rose by 39.7 % between 1989 and 1999, from \$30,056 in 1989 to \$41,994 in 1999, outpacing the growth in household income found in Hatfield Township, Lansdale, Lower Gwynedd, Towamencin, Upper Gwynedd and Montgomery County.

Family income rose by 42.1% from 1989 to 1999 for the Nation as a whole. National increases in family income exceeded those found in Hatfield Borough, Lansdale, Lower Gwynedd, Towamencin, Upper Gwynedd and the County for the same time period.

Employment and Jobs

The Census collects information on the number, status and type of work of US residents 16 years of age and older, by place of residence. The following section presents information on resident's employment and occupational status, followed by a presentation of data compiled by the Delaware Valley Regional Planning Commission on numbers of jobs in Upper Gwynedd, the Upper Gwynedd Subregion and Montgomery County.

Employment and Industry

According to the 2000 Census, 70.0% of Upper Gwynedd Township's population is in the labor force; 30.0 percent is not and .10% is in the armed forces. This distribution is similar to that found in Bucks, Chester and Montgomery Counties. Delaware and Philadelphia counties, on the other hand, have greater percentages of their population not in the labor force.

TABLE 23:
Median Household and Family Income in 1989-1999 and Percent Change:
Upper Gwynedd Township, the Upper Gwynedd Subregion

Place	Total 16 yrs. and over	In labor force		In Armed Forces		Not in labor force	
	number	number	percentage	number	percentage	number	percentage
Bucks County	461,356	320,110	69.4%	701	0.15%	141,246	30.6%
Chester County	332,513	229,631	69.1%	162	0.05%	102,882	30.9%
Delaware County	429,983	272,268	63.3%	176	0.04%	157,715	36.7%
Montgomery County	589,000	403,574	68.5%	921	0.16%	185,426	31.5%
Philadelphia County	1,174,798	656,935	55.9%	396	0.03%	517,863	44.1%

Source: U.S. Census, 2000 Summary File 3 (SF 3) - Sample Data

TABLE 24 presents employment status information for the Township, the Upper Gwynedd Subregion, and Montgomery County for 2000.

TABLE 24:
Employment Status, Upper Gwynedd Township, the Upper Gwynedd Subregion
and Montgomery County, 2000

	Total Population 16 Years and Older	In labor force:	In Armed Forces	Civilian:	Employed	Unemployed	Not in labor force
Hatfield borough	2,058	75.9%	0.3%	75.6%	96.7%	3.3%	24.1%
Hatfield township	12,954	72.8%	0.2%	72.6%	97.8%	2.2%	27.2%
Lansdale borough	12,836	69.6%	0.3%	69.4%	97.4%	2.6%	30.4%
Lower Gwynedd township	8,322	58.4%	0.0%	58.4%	97.6%	2.4%	41.6%
Montgomery township	16,301	71.7%	0.2%	71.5%	96.8%	3.2%	28.3%
North Wales borough	2,555	77.1%	0.4%	76.6%	96.1%	3.9%	22.9%
Towamencin township	13,726	69.6%	0.3%	69.4%	96.3%	3.7%	30.4%
Upper Gwynedd township	11,328	70.0%	0.1%	69.8%	97.7%	2.3%	30.0%
Whitpain township	14,581	68.1%	0.0%	68.1%	97.0%	3.0%	31.9%
Worcester township	5,933	64.7%	0.2%	64.6%	98.5%	1.5%	35.3%
Montgomery Co.	589,000	68.5%	0.2%	68.4%	95.5%	4.5%	31.5%

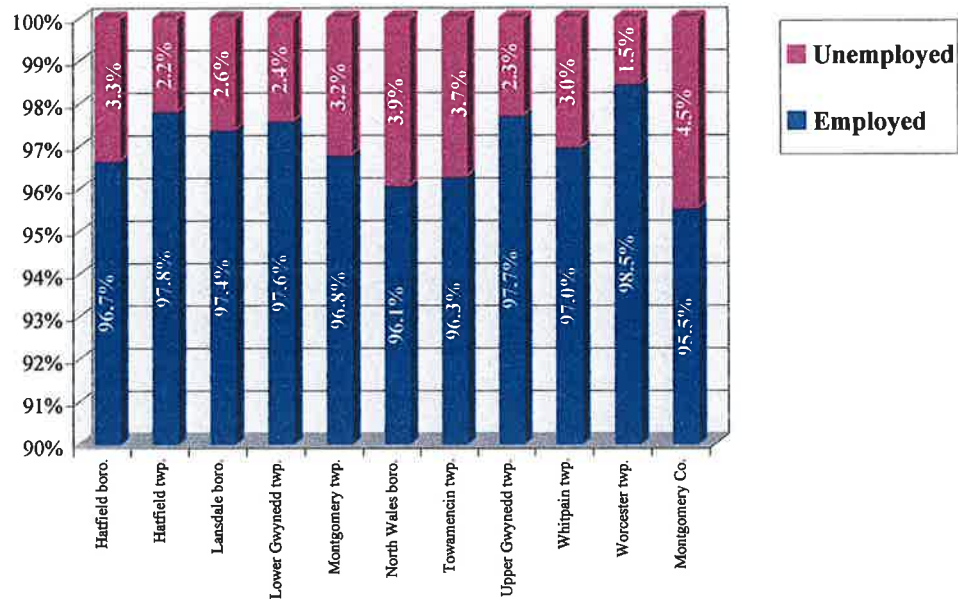
Source: US Bureau of the Census, 2000

A majority of the population is in the Civilian Labor Force, that is the labor force exclusive of those in the armed forces, for each area under study. And, as can be seen, a vast majority of those residents in the civilian labor force are employed. The lowest *unemployment* rate in 2000 belonged to residents of Worcester township; the highest to the Borough of North Wales. Upper Gwynedd's unemployment rate at 2.3% of the civilian labor force, was lower than the County and every other community under study except for, as mentioned, Worcester, Lansdale Borough and Hatfield Township.

Worcester Township also had the greatest percentage of its population *not in the labor force* at 35.3 percent of the total population. North Wales had the lowest percentage of its population *not in the labor force* with 22.9 percent.

FIGURE 8 graphically displays the employment and unemployment for residents of each area under study.

FIGURE 8:
Civilian Employment and Unemployment Rates, 2000



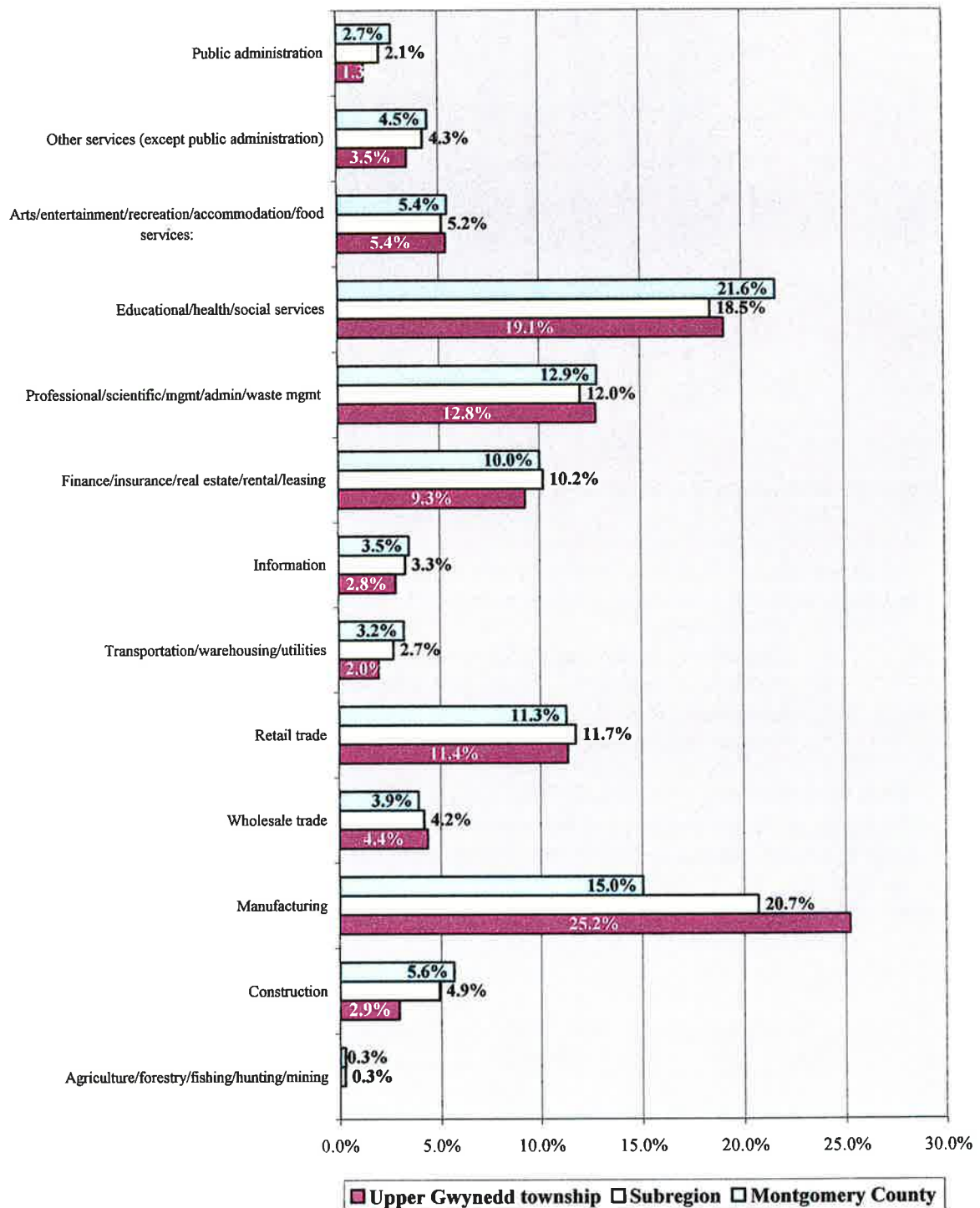
Source: US Bureau of the Census, 2000 (SF3)

The distribution of resident's employment by industry type is found in FIGURE 9. The top five industries employing residents of Upper Gwynedd Township include:

- 1) *Manufacturing ,*
- 2) *Educational, health and social services;*
- 3) *Professional, scientific, management, administrative, waste management service*
- 4) *Retail trade, and*
- 5) *Finance, insurance, real estate, rental and leasing.*

While Manufacturing is the industry employing the single greatest percentage of residents in the Township, this is not the case for the County – in fact, Educational/health/social services is a more important industry for the County overall, though manufacturing does maintain the number two spot.

FIGURE 9:
Civilian Labor Force 16 Years and Over by Industry, Upper Gwynedd Township
the Upper Gwynedd Subregion and Montgomery County, 2000



Source: US Bureau of the Census, 2000.

Journey to Work

When compared to Montgomery County residents of Upper Gwynedd Township are more likely to commute to their place of employment via their own car, truck or van. In fact, the most popular means of transportation for residents of the Township and the Subregion is the automobile, with a vast majority of residents driving alone in that auto. Public transportation is not readily utilized for commuting by residents of the Township, the Subregion or the County, though residents in Upper Gwynedd are more likely than residents in the Subregion to use public transportation. And, residents of Upper Gwynedd Township are slightly less likely to work in their homes than are residents of Montgomery County or the Subregion. TABLE 25 presents detailed data on the means of transportation to work for workers 16 years and over in Upper Gwynedd, the Subregion and Montgomery County as of 2000.

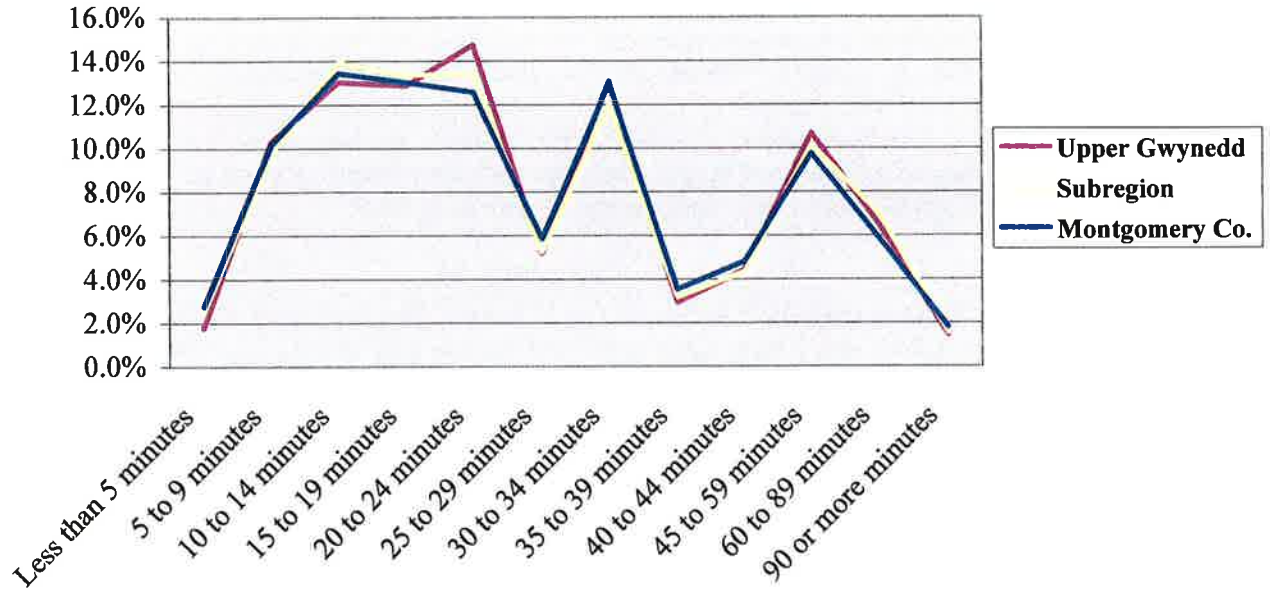
TABLE 25:
Means of Transportation to Work for Workers 16 Years and Over, Upper Gwynedd Township, the Upper Gwynedd Subregion and Montgomery County, 2000

	Upper Gwynedd	Subregion	Montgomery Co.
Total:	7,682	66,724	379,832
Car, truck, or van:	91.4%	91.3%	88.8%
<i>Drove alone</i>	85.2%	83.8%	80.5%
<i>Carpooled</i>	6.2%	7.5%	8.3%
Public transportation:	3.5%	2.9%	4.4%
<i>Bus or trolley bus</i>	0.5%	0.2%	1.0%
<i>Streetcar or trolley car</i>	0.0%	0.0%	0.0%
<i>Subway or elevated</i>	0.0%	0.1%	0.3%
<i>Railroad</i>	3.0%	2.5%	3.0%
<i>Ferryboat</i>	0.0%	0.0%	0.0%
<i>Taxicab</i>	0.0%	0.0%	0.0%
Motorcycle	0.0%	0.1%	0.0%
Bicycle	0.1%	0.2%	0.2%
Walked	1.6%	1.6%	2.6%
Other means	0.2%	0.3%	0.4%
Worked at home	3.1%	3.6%	3.6%

Source: US Bureau of the Census, 2000.

FIGURE 10 presents commuting times for residents of the Township, the Subregion and Montgomery County. As can be seen, the patterns are nearly identical, with just about 60 percent of the residents of each area traveling less than one-half hour to work.

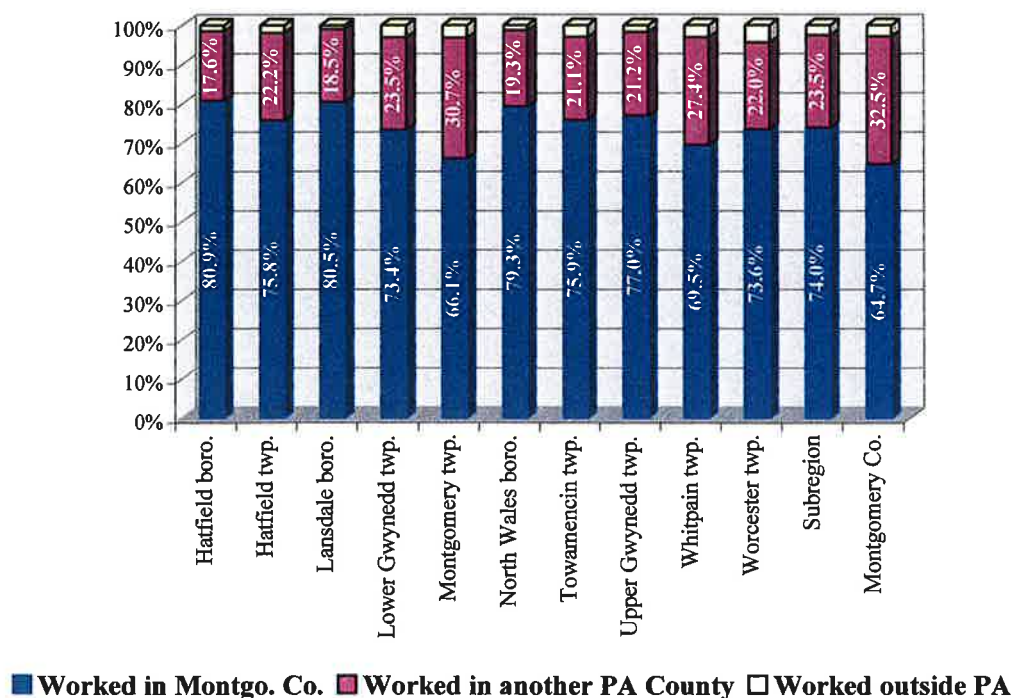
FIGURE 10:
Commuting Time Distribution for Workers 16 Years and Older not working at home: Upper Gwynedd Township, the Upper Gwynedd Subregion and Montgomery County, 2000



Source: US Bureau of the Census, SF3, 2000

Figure 11 presents a general overview of the place of work for residents of Upper Gwynedd Township.

FIGURE 11:
Place of Work for Workers 16 Years and Over, Upper Gwynedd Township, the
Upper Gwynedd Subregion and Montgomery County, 2000



Source: US Bureau of the Census, 2000 (SF3)

Clearly, a majority of residents of each area considered in FIGURE 11 works in Montgomery County. Residents of Hatfield Borough are the most likely to work in the County, while those living in Montgomery Township are least likely. Residents of Worcester Township are the most likely to work outside of Pennsylvania. Residents of Upper Gwynedd are slightly more likely to work in Montgomery County than are residents of the Subregion overall or the County as a whole.

Table 26a presents more specific data on where residents of Upper Gwynedd commute for their jobs. Upper Gwynedd Township itself was home to the jobs of 16.8% of the employed residents in the Township in 2000. The City of Philadelphia was the second most important destination for jobs by residents in Upper Gwynedd, followed by Lansdale Borough, Montgomery Township and Whitpain, all in Montgomery County.

TABLE 26a:
Place of Employment for Residents of Upper Gwynedd
in Rank Order (Top 20), 2000

	Number	Percentage	Rank
Upper Gwynedd Twp. Montgomery Co. PA	1,292	16.8%	1
Philadelphia city Philadelphia Co. PA	637	8.3%	2
Lansdale bor. Montgomery Co. PA	537	7.0%	3
Montgomery Twp. Montgomery Co. PA	394	5.1%	4
Whitpain Twp. Montgomery Co. PA	342	4.5%	5
Hatfield Twp. Montgomery Co. PA	304	4.0%	6
Upper Dublin Twp. Montgomery Co. PA	257	3.3%	7
Lower Gwynedd Twp. Montgomery Co. PA	242	3.2%	8
Horsham Twp. Montgomery Co. PA	237	3.1%	9
Upper Merion Twp. Montgomery Co. PA	210	2.7%	10
Towamencin Twp. Montgomery Co. PA	184	2.4%	11
Plymouth Twp. Montgomery Co. PA	180	2.3%	12
Norristown bor. Montgomery Co. PA	162	2.1%	13
Upper Moreland Twp. Montgomery Co. PA	125	1.6%	14
Tredyffrin Twp. Chester Co. PA	120	1.6%	15
Lower Merion Twp. Montgomery Co. PA	115	1.5%	16
Whitemarsh Twp. Montgomery Co. PA	113	1.5%	17
East Whiteland Twp. Chester Co. PA	107	1.4%	18
Lower Salford Twp. Montgomery Co. PA	102	1.3%	19
Worcester Twp. Montgomery Co. PA	94	1.2%	20

Source: US Bureau of the Census, 2000

Table 26b offers data on the place of residence of those working in Upper Gwynedd Township. Of the total 13,984⁸ jobs counted in 2000, 1,292, or 9.2%, belonged to people who also live in Upper Gwynedd. Philadelphia was the source for the second largest group of workers in the Township. Interestingly, most of the top 20 locations are in Montgomery County.

⁸ Note that the Census determined number of jobs and the DVRPC estimates discussed below vary for Upper Gwynedd in 2000 by 516, with the DVRPC estimates being higher.

TABLE 26b:
Workers in Upper Gwynedd Township
by Place of Residence, 2000 and Ranking (Top 20)

Place of Residence of those working in Upper Gwynedd	Count	% of All Jobs in Township	Rank
Upper Gwynedd Twp. Montgomery Co. PA	1,292	9.2%	1
Philadelphia city Philadelphia Co. PA	929	6.6%	2
Towamencin Twp. Montgomery Co. PA	759	5.4%	3
Lansdale bor. Montgomery Co. PA	713	5.1%	4
Montgomery Twp. Montgomery Co. PA	599	4.3%	5
Hatfield Twp. Montgomery Co. PA	503	3.6%	6
Lower Salford Twp. Montgomery Co. PA	494	3.5%	7
Franconia Twp. Montgomery Co. PA	304	2.2%	8
Whitpain Twp. Montgomery Co. PA	262	1.9%	9
Horsham Twp. Montgomery Co. PA	240	1.7%	10
Doylestown Twp. Bucks Co. PA	219	1.6%	11
Lower Gwynedd Twp. Montgomery Co. PA	209	1.5%	12
Upper Dublin Twp. Montgomery Co. PA	179	1.3%	13
North Wales bor. Montgomery Co. PA	176	1.3%	14
Norristown bor. Montgomery Co. PA	172	1.2%	15
Worcester Twp. Montgomery Co. PA	168	1.2%	16
Lower Providence Twp. Montgomery Co. PA	166	1.2%	17
Springfield Twp. Montgomery Co. PA	157	1.1%	18
Cheltenham Twp. Montgomery Co. PA	157	1.1%	19
Buckingham Twp. Bucks Co. PA	155	1.1%	20
Total	13,984	100.0%	

Source: US Bureau of the Census, 2000

Jobs

An important indicator of economic vitality for a community is the number and growth in jobs in that community. The above data present employment figures for residents of each area. What follows below is a presentation of the number (estimated and forecasted by the Delaware Valley Regional Planning Commission) of *jobs in each area*.

As can be seen in TABLE 27, Upper Gwynedd had 13,030 jobs in 1990 and it was expected that the Township would increase that number by 1,470 by the year 2000, representing an 11.3% increase over 10 years. After that, continued growth is anticipated, though at a slightly more modest rate -- the Delaware Valley Regional Planning Commission forecasts that Upper Gwynedd will increase the number of jobs in the Township by 7.6% from 2000 to 2010 and another 7.4% from 2010 to 2020.

TABLE 27:
Estimated and Forecasted Numbers of Jobs in Upper Gwynedd Township, the
Upper Gwynedd Subregion and Montgomery County, 1990 – 2025.

Area Name	1990 Census	1997 estimate	2000 Forecast	2010 Forecast	2020 Forecast	2025 Forecast	2000- 2010	2010- 2020	2000- 2025
							Percent Change	Percent Change	Percent Change
Hatfield Borough	2,008	2,213	2,300	2,250	2,200	2,200	-2.2%	-2.2%	-4.3%
Hatfield Township	15,584	15,947	16,250	18,850	21,650	23,000	16.0%	14.9%	41.5%
Lansdale Borough	10,163	9,959	9,650	9,500	9,300	9,250	-1.6%	-2.1%	-4.1%
Lower Gwynedd Twp.	8,379	8,787	9,000	9,500	10,000	10,250	5.6%	5.3%	13.9%
Montgomery Township	15,732	20,050	20,400	24,250	28,000	29,450	18.9%	15.5%	44.4%
North Wales Borough	1,223	1,276	1,250	1,200	1,150	1,100	-4.0%	-4.2%	-12.0%
Towamencin Township	4,360	6,576	7,200	8,800	10,450	11,250	22.2%	18.8%	56.3%
Upper Gwynedd Twp.	13,030	13,954	14,500	15,600	16,750	17,300	7.6%	7.4%	19.3%
Whitpain Township	17,316	19,162	19,700	20,200	20,600	21,000	2.5%	2.0%	6.6%
Worcester Township	2,649	3,272	3,250	3,450	3,600	3,750	6.2%	4.3%	15.4%
Upper Gwynedd Subregion	90,444	101,196	103,500	113,600	123,700	128,550	9.8%	8.9%	24.2%
Montgomery Co	457,501	485,435	491,200	520,250	551,450	567,700	5.9%	6.0%	15.6%

Source: Delaware Valley Regional Planning Commission, Population and Employment Forecasts, 2000-2025, 9-County DVRPC Region, Publication #73, March, 2002.

FIGURE 12 shows changes in numbers of jobs in the Township, the Subregion and the County for the period between 2000-2025, per the Delaware Valley Regional Planning Commission forecasts. Towamencin is clearly the front-runner in terms of forecasted job growth (in percentage terms), followed by Montgomery Township and Hatfield Township. Job loss is anticipated in the Boroughs of North Wales, Lansdale and Hatfield. The aggregated Subregion is expected to outpace growth in the County, perhaps in large part because of the expected gains in Towamencin, Montgomery, and Hatfield.

Upper Gwynedd is, as mentioned, expected to continue to gain jobs, and is, in fact, forecasted to be the 5th in terms of job growth through 2025 when compared to the balance of Subregion. The Township is also expected to surpass the growth in jobs within the County overall for that same period.

It is important to note that forecasts are predicated on existing conditions and recent history; changes nationally and/or at the local level can, of course, alter these anticipated outcomes for job growth and loss.

FIGURE 12: Change in Numbers of Jobs, 2000-2025, Upper Gwynedd Township, the Upper Gwynedd Subregion and Montgomery County

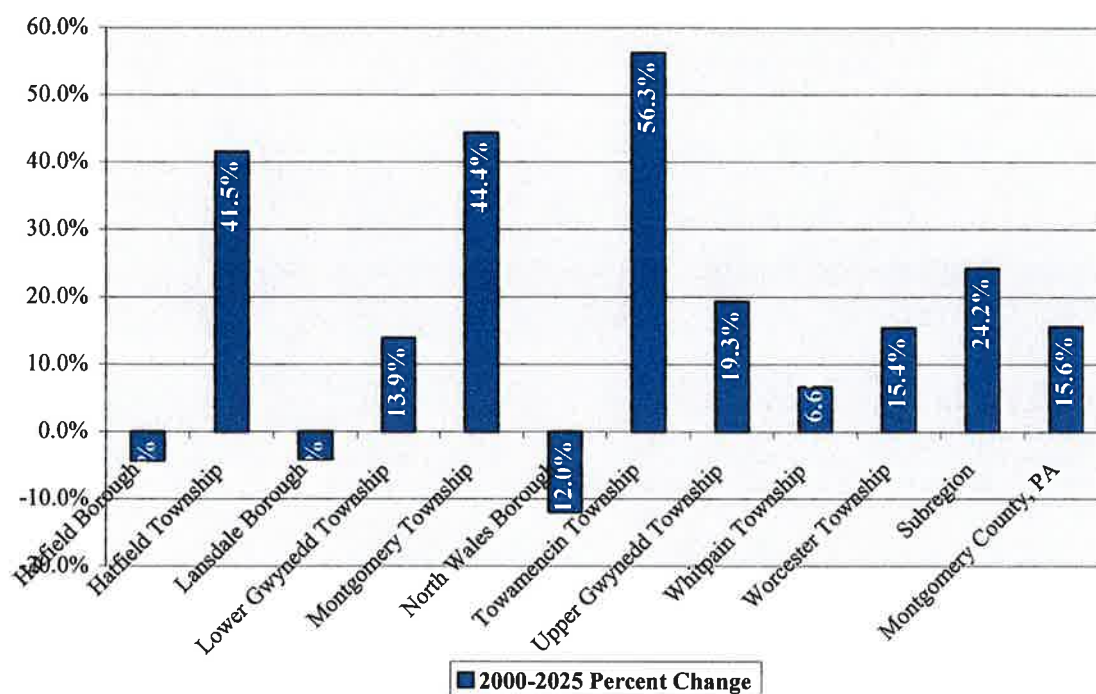


TABLE 28 presents the 10 largest employing municipalities in the County, numbers of jobs in those communities, and percentage of total jobs in Montgomery County for 2000 and 2025. The Upper Gwynedd Subregion includes 3 of the top 10 employment centers in the County: Montgomery Township, Whitpain Township and Hatfield Township. In Year 2000, Upper Gwynedd ranked 12th out of the 62 municipalities in the County in terms of numbers of jobs within its boundaries, in 2025 it is expected to move to 11th place.

A major reason Upper Gwynedd ranks among the top employment centers in the County is because of Merck & Company's 400-acre facility in the Township. Merck & Company, the largest single employer in Montgomery County,⁹ provides jobs for 8,600 workers in two locations in the County. The larger location, employing 7,400 people, is situated in Upper Gwynedd Township.

⁹ "Largest Private Sector Montgomery County Employers." *Montgomery County Planning Commission*. See: <http://www.montcopa.org/commerce/employer.htm>

TABLE 28:
Top 10 Employment Municipalities in Montgomery County, 2000 and 2025.

Area Name	Total employment, 1990 Census	% of All County			% of All County		
		2000 Forecast	Rank, 2000	Jobs, 2000	2025 Forecast	Rank 2025	Jobs, 2000
Upper Merion Township	46,428	50,600	1	10.3%	60,250	1	10.6%
Lower Merion Township	42,889	42,850	2	8.7%	41,950	2	7.4%
Abington Township	28,414	26,350	3	5.4%	25,000	6	4.4%
Horsham Township	23,283	26,050	4	5.3%	31,000	4	5.5%
Plymouth Township	19,460	22,850	5	4.7%	32,000	3	5.6%
Upper Dublin Township	20,111	21,000	6	4.3%	24,500	7	4.3%
Montgomery Township	15,732	20,400	7	4.2%	29,450	5	5.2%
Whitpain Township	17,316	19,700	8	4.0%	21,000	9	3.7%
Upper Moreland Township	14,338	17,100	9	3.5%	17,500	10	3.1%
Hatfield Township	15,584	16,250	10	3.3%	23,000	8	4.1%
Montgomery County, PA	457,501	491,200		100.0%	567,700		100.0%

Source: Delaware Valley Regional Planning Commission, Population and Employment Forecasts, 2000-2025, 9-County DVRPC Region, Publication #73, March, 2002.

Another way of analyzing a community with regard to the numbers of jobs within its borders is to look at the existing job density, i.e. numbers of jobs per resident population. This gives greater clarity in understanding the commercial and residential composition of an area. Here we see that while Upper Gwynedd ranked 11th in terms of jobs in the County when compared directly with other communities, the Township moves to 7th when we take into consideration the job density.

TABLE 29:
Jobs Per Resident Population, Top 10 in Montgomery County, 2000

Area Name	POPULATION 2000 Census	JOBS 2000 Forecast	Jobs Per Resident Population	Rank within County (N=62)
West Conshohocken	1,446	2,800	1.94	1
Upper Merion Township	26,863	50,600	1.88	2
Plymouth Township	16,045	22,850	1.42	3
Jenkintown Borough	4,478	5,250	1.17	4
Horsham Township	24,232	26,050	1.08	5
Whitpain Township	18,562	19,700	1.06	6
Upper Gwynedd Township	14,243	14,500	1.02	7
Hatfield Township	16,712	16,250	0.97	8
Montgomery Township	22,025	20,400	0.93	9
Hatfield Borough	2,605	2,300	0.88	10

Source: US Bureau of the Census and Montgomery County Planning Commission (reports of Census data), 2000.

Chapter 7

POPULATION AND HOUSING PROJECTIONS

Methodology

Population projections are useful in helping a municipality plan for future needs, such as park and recreation facilities, emergency services, and services for senior citizens. Population projections developed for this Comprehensive Plan utilize a combination of the following methods:

- Projection of new dwelling units built or under construction since the Year 2000 Census of the Population.
- Dwelling units planned and proposed for development over the next few years. Where practicable, per capita multipliers are utilized based on the type of dwelling unit proposed.
- The age cohort survival method, which simulates the changes in the existing population by applying birth, death, and migration rates to the population existing as of the 2000 Census.

As a part of this analysis, it is concluded that household size has been declining nationwide in recent years due to a number of factors:

- Declining birth rates;.
- Rising divorce rates;
- More younger and older persons living alone;
- Later family formation.

It is anticipated that the Township will generally become built out by the year 2010. At that time, the population is forecast to stabilize at those levels estimated to be reached by the year 2010.

Most of the developable land in Upper Gwynedd Township has been built upon or has been targeted by recent planning proposals for development. These proposals, along with estimated per capita multipliers, are listed below:

Table 7-1
Estimated Township Population 2010

Built or Under Construction Since April 2000:

Gwynedd Commons (AQRC)*	48 x 1.8 = 86
Mill Run (AQRC)*	48 x 1.8 = 86
Hancock Manor Single Family	20 x 3.5 = 70
Gwynedd Glen	2 x 3.5 = 7

Proposed - Plans Approved or Soon To Be Filed:

The Reserve at Gwynedd (AQRC)*	405 x 1.8 = 729
Station Square Apartments	350 x 1.8 = 630
Collins Avenue Subdivision	11 x 3.5 = 39
Colavita Subdivision	14 x 3.5 = 49
Anne's Court, Allentown Road	6 x 3.5 = 21
Allentown Road next to Canterbury Drive	13 x 3.5 = 46

<u>Future In-Fill Lots:</u>	20 x 3.5 = 70
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The new dwelling units contemplated by the year 2010 and the resultant additional resident population equal approximately:

937 new dwellings

1,833 new residents

16,076 forecast total population 2010

*AQRC = Age Qualified Residential Community (age 55 plus)

Housing Types

Upper Gwynedd contains a wide variety of housing types. As indicated in the Demographic Chapter, a great deal of housing was developed between 1950 and 1980. However, a development spurt is contemplated that should add more than 900 new dwellings over the next ten year period. A vast majority of housing, more than 80% of all units, have been built after World War II.

Single-family detached dwellings have predominated for many decades. However, since 1980 townhouses and senior housing have also been added to the Township housing fabric. In addition, a number of age qualified (age 55+) housing developments are currently planned or underway in the form of one story attached or in the case of The Reserve at Gwynedd a portion of the housing will be multi-story apartment condominiums. New rental housing is contemplated for the Transit Oriented Overlay District properties which will provide 350 additional units to the rental market. The percentage of attached and multi-family housing is expected to increase over the next few years.

Housing Plan

The Township currently exhibits a variety of housing types. These include areas zoned for low and medium density single family dwellings; a mobile home park (Gwynedd Woods); areas designed for owner and renter-occupied townhouses (Gwynedale, Stone Gate and Ryan's Run); two rental apartment complexes with a third (Station Square) adjacent to the Pennbrook train station expected to come on line in the next twelve to fifteen months; active adult housing with two communities (Gwynedd Commons and Mill Run) nearly complete and the 405 unit The Reserve at Gwynedd contemplated to start construction in calendar year 2004; senior housing in the form of independent and assisted living at Brittany Pointe (280 independent living units and 37 assisted living units) and convalescent nursing accommodations at both Brittany Pointe and Gwynedd Square Nursing Center. New single family detached developments, although in small numbers, are currently proposed or under construction at various in-fill sites situate in the R-2 Zoning District throughout the Township.

A wide choice of owner-occupied and renter-occupied units exists and additional housing for older persons and rental communities are in the planning stage.

The Pennsylvania Municipalities Planning Code at Section 604 requires municipalities provide for the following basic housing types:

- Single-family;
- Two-family;
- Multi-family;
- Mobile homes.

Upper Gwynedd provides for significant housing units in all these land use categories. Many of these developments were built and occupied in the 1980s and 1990s and additional examples of each are proposed at numerous locations throughout the Township.

Residential communities in Upper Gwynedd are attractive, pleasant, well maintained, quiet places to live. They are generally unaffected by large volumes of traffic which travel the major highways. Areas of blight or distressed housing do not exist. Even those housing units built forty to fifty years ago or more, while aged are in good repair and maintain viability as quality housing. However, small strips of older housing along major corridors such as West Point Pike and Sumneytown Pike are suggested for a transitional residential/office use as recommended on the Future Land Use Plan. The Future Land Use Plan has two recommendations:

1. For large lots fronting along West Point Pike and Sumneytown Pike - east of West Point Pike - older homes are recommended for reuse as business and professional office. These are areas that are not adjacent to tight knit residential neighborhoods, and because of their isolation as well as exposure to high volume traffic are recommended for a new transitional use. Fewer than fifteen (15) properties are recommended for this BP Business Professional District.
2. A new district entitled *RO Residential Office District* is suggested for a few properties which contain residences, in this instance those properties which have frontage along the north side of Sumneytown Pike and the east side of Valley Forge Road and which are adjacent to single family neighborhoods. The Residential Office District would require renovation of existing buildings or the construction of new buildings which are of smaller scale and limited use and anticipated to be compatible with adjacent residential neighborhoods. An outline of the suggested Residential Office District is appended to this report.

It should also be noted that West Point Village which is the subject of a separate study discussed elsewhere in this report also suffers from an increase in through traffic in the areas of West Point Pike, Garfield Avenue, and Park Road. As a part of the Preservation and Improvement Plan for West Point Village, measures to cope with the increase in traffic volume will be addressed.

Historic Houses and Buildings

In addition to the historic Evans Mumbower Mill along Swedesford Road, an historic cemetery adjacent to St. Rose of Lima Church along West Prospect Avenue, and a third historic dwelling on the property of Delaware Valley College which is presently used as a museum, there are numerous stand alone dwellings with historic significance, particularly along the north side of Hancock Road and a notable example east of North Wales Borough on Sumneytown Pike. In addition, groups of dwellings of community importance located in West Point Village could also be the focus of preservation through a Village Historic Preservation District. Many of these historic residences are still used for dwelling purposes and their preservation contributes not only to the housing stock but also to the protection of noteworthy historic buildings. The Comprehensive Plan is recommending as a part of a preservation policy the consideration of an amendment to the Township Zoning Ordinance which would protect these historic buildings and active buildings from demolition - including demolition by neglect. A draft of a sample ordinance is appended to this report.

Future Housing Needs

Upper Gwynedd is quickly approaching the time where virtually all the vacant land or buildable land will be developed. As discussed previously, housing in various forms including tenure by both rental and owner occupancy exists and is proposed throughout the Township. While single-family detached has been the predominant dwelling housing type in the past, single-family attached (townhouse) communities: Ryan's Run, Gwynedale, and Stone Gate have added over five hundred (500) units of attached housing since the 1980s. Age 55+ housing in the form of one-story attached dwelling units are currently under construction at two locations: Gwynedd Commons and Mill Run, and a large community known as The Reserve at Gwynedd is proposed for 405 dwelling units consisting of both attached dwellings and mid-rise apartment condominiums, as well as an ample mix of active and passive recreation; an attractive mobile home park (Gwynedd Woods) developed on the edge of North Wales Borough and consisting of approximately ninety (90) owner-occupied manufactured homes is also present.

Three large apartment communities (pre-1980s), Gwynedd Club, Willow Wick, and Pennbrooke apartments - both sides of Church Road will be augmented with a new rental community known as Station Square which is projected to consist of 350 units along with small scale retail services, all of which is located within walking distance of the Pennbrook train station. Stony Creek planned residential development under construction for the period approximately 1985 to 1995 exhibits a mix of twin homes, town homes, and small lot single family.

Housing needs are also being met for the first time by reuse plans. The two most notable have recycled old industrial sites for medium to high density residential housing:

- The former Rotelle/Rich Food site of approximately 73 acres has been planned and rezoned for an age-55 plus community (The Reserve at Gwynedd) located along Morris Road.
- The former Ford Motor Company site, cleared and vacant for years, is part of the Transit Oriented Overlay District which will add rental apartments and preserve the SEPTA parking lot adjacent to the Pennbrook station in Lansdale.

These recycled industrial sites will add approximately 755 new dwelling units to housing stock in Upper Gwynedd Township.

Land Uses That Influence New Housing

Upper Gwynedd is a relatively small and compact township consisting of only 8.14 square miles. Yet, the Township exhibits a wide array of residential opportunity attracted by a significant presence of business and professional office development; light industrial uses - particularly noteworthy are the Merck sites:

- West Point site;
- Upper Gwynedd site;
- Merck office center.

Small areas of commerce particularly at crossroads such as Valley Forge Road and Sumneytown Pike and Church Road and Sumneytown Pike serve Township neighborhoods.

Public institutions including three public schools which comprise a part of the North Penn School District:

- Gwynedd Square Elementary;
- Gwyn-Nor Elementary;
- Pennbrook Middle School;

and private school:

- Lansdale School of Business;

as well as numerous religious uses such as:

- Sanctuary United Methodist Church;
- Corpus Christi Church and School;
- Gwynedd Square Presbyterian Church;
- Grace United Church of Christ;
- Maranatha Assembly of God;
- and the popular Saint Rose of Lima Church and School (also partly located in North Wales Borough).

Rail transit stations are immediately adjacent to Upper Gwynedd and easily accessed by residents:

- Pennbrook Station (Borough of Lansdale);
- North Wales Station (Borough of North Wales).

Office developments such as:

- Brookview Corporate Center
- Gwynedd Court Office Condominiums;
- Lansdale Medical Group. In total, the various physician practices employ approximately 325 full and part-time workers.

A significant presence of active and passive parks and recreation, such as the extensive recreation facilities located at the 80 acre Township complex; and one of the few permanently preserved agricultural farm land reserves consisting of approximately 220 acres located between Welsh Road and Hancock Road with additional frontage along DeKalb Pike along with the 240 acre Gwynedd Wildlife Preserve provide attractive large natural open space areas in close proximity to residential neighborhoods.

Socio-Economic Factors That Adversely Affect Quality of Existing Housing

Areas of blight, high unemployment, crime, or poorly maintained housing are non-existent in Upper Gwynedd. Old and new neighborhoods are sound and of high quality.

Other sustainability indicators are examined below:

1. Percentage of persons below poverty level.

Comment: Poverty.¹ According to the 2000 Census, Upper Gwynedd Township had 57 families or 1.4% of the total number of families (4,016) living below the poverty level in 1999. This percentage was less than Montgomery County, which had 5,740 families or 2.8% of the total number of families (198,871) living below the poverty level in 1999. The Township had 274 persons or 1.9% of the total population below the poverty level in 1999. This percentage was also less than Montgomery County, which had 32,235 persons or 4.4% of the total population (728,882) below the poverty level in 1999.

2. Percentage of persons not employed.

Comment: Upper Gwynedd had a 2.3% unemployment rate in 2000, which was half that of the County total.

¹Poverty status is determined by the U.S. Office of Management and Budget and is based on a range of thresholds, which vary by household size and household composition. Families in poverty include all poor households of two or more persons living together who are related by birth, marriage or adoption. Persons in poverty include all poor individuals over 15 years of age who do not live in group quarters. Poverty thresholds are computed on a national basis and updated annually to reflect changes in the CPI. No accounting is made for regional variation in prices.

3. Vacancy rates for year-round housing units.

Comment: Upper Gwynedd's vacancy rate at 2.8% is below both the Subregion's average and the County's overall rate.

4. Percentage of renter-occupied housing dwellings (of housing not builder-developed as rental apartments).

Comment: Owner-occupied housing at 81% is among the highest in the region and 10% higher than the median for Montgomery County. In fact, additional rental housing stock would be a step toward a greater range of housing choice. Upper Gwynedd had the third highest median contract rent in the County.

Chapter 8

ADDITIONAL STUDIES

The Village of West Point

Residents and business owners in the Village of West Point have formed a committee to develop a Preservation and Improvement Plan for the Village.

The Village of West Point, created from the subdivision of the Amos Jones farm and originally known as Lukens or Lukens Station, is the only town within the township . . . The West Point Post Office (19486) was originally established January 1878. Rail and trolley lines contributed to the growth of West Point.¹

In addition, for over one hundred years, an amusement park operated in West Point and was originally known as Zieber's Park which opened in 1869 and offered amusements and a picnic grove. In the early part of this century, the Montgomery Traction Trolley line running on Garfield Avenue stopped at the entrance to the park and discharged passengers from the Lehigh Valley Transit Company which ran between Lansdale and Norristown. The park operated for many years as West Point Park. By the mid-1980s the park had been removed and the property was subsequently developed for housing.

Today, West Point Village consists of approximately 130 properties situated along both sides of Garfield Avenue and along West Point Pike running from Oak Street to the Conrail rail line. A small Township park, Grace United Church of Christ located at West Point Pike and Park Avenue, and numerous small businesses are situated along both sides of West Point Pike, while the Upper Gwynedd Fire Company (organized in 1908) occupies properties between Garfield Avenue and Park Road.

The West Point Preservation and Improvement Committee desires to preserve the village character and historic context of West Point Village, as well as to beautify the main streets that run through the village, control and improve traffic circulation, and generally improve property values. The Committee, along with Township staff, will continue to meet to develop a plan to implement the above stated goals.

¹*Montgomery County The Second Hundred Years, Volume 1*, Montgomery County Federation of Historical Societies, 1983.

In recognition of the special character of the Village of West Point, the Upper Gwynedd Township Board of Commissioners on March 29, 1982 (Ordinance No. 82-3) enacted two zoning districts which are only applied to properties within West Point:

- VPR - Village Preservation Residential District has a stated purpose including “encourage the preservation of the existing character and residential lifestyles of the West Point neighborhood of Upper Gwynedd Township which exhibits a mixture of single-family detached dwellings and two-family dwellings on smaller lot sizes than those found elsewhere in the township. Furthermore, it is the intent of this district to guide the future development or redevelopment of this neighborhood in the township by providing strict control of such activity within the Village Preservation Residential District in order to ensure that they contribute to the general welfare of the residents of West Point.”
- VC - Village Commercial District has a stated purpose including “to provide appropriate standards for restricted commercial and office usage where unrestricted commercial development would be undesirable in preserving the character of the commercial core of West Point and to:
 - (1) Allow the conversion of appropriate residential structures for office use or residential commercial usage or a combination of these uses with limited residential use.
 - (2) Provide for only those commercial and office uses which would not conflict with nearby existing residential development and which can serve as transitions between the residential development and other existing uses.
 - (3) Provide regulations specifically tailored to permit development of smaller, individual office and limited commercial uses.”

Acquisition of Open Space and Conservation Easements

Upper Gwynedd Township will continue to evaluate the possibility of acquiring additional open space, either by purchase or through conservation easements. The 1995 Open Space Plan lists a number of these potential acquisitions. Most recently, the Lauchman property was acquired with the assistance of the Montgomery County Open Space Grant Program. This property protects natural features along the north side of Sumneytown Pike adjacent to the Wissahickon Creek.

The Township will continue to examine the desirability of purchasing additional properties and consistent with the 1995 Open Space Plan will continue to evaluate the possibility of acquiring easements to help implement a trail system(s) through the Township which would help connect key areas that link existing open space or protect the natural resources of the Township.

Chapter 9

TRANSPORTATION AND MOBILITY

Township Roads

Upper Gwynedd Township is a virtually built out community and the main traffic routes are well established. However, there are a number of improvements contemplated for existing road rights-of-way or minor adjustments in order to facilitate the traffic circulation.

Two of these improvements are identified on the Land Use Plan:

1. The continuation of the Route 202 Bypass, which for nine miles between Doylestown and Welsh Road is a new limited access highway and which at Welsh Road resumes its existing location in the bed of DeKalb Pike/existing Route 202. At this juncture the roadway will undergo significant widening and road improvements.
2. Relocation of the Moyer Boulevard intersection with West Point Pike. The current location exists adjacent to the railroad crossing and possesses sight distance limitations along West Point Pike and a difficult summit curve along Moyer Boulevard. The relocation will move the intersection northwardly along West Point Pike approximately 400 feet and eliminate these difficulties. This project will be completed by fall 2004.

Recently, Allentown Road was relocated as a part of the Township/Merck transportation improvement program creating a new fully signalized intersection for Allentown Road directly opposite the major entrance to the Merck West Point campus. The prior roadbed which intersected with Sumneytown Pike immediately adjacent to the railroad bridge overpass has been eliminated. Both road widening and traffic signalization have been vastly improved by the relocated roadway, and this new location is similarly shown on the Land Use Plan.

Upper Gwynedd Township is also undertaking acquisition of rights-of-way for the widening of Sumneytown Pike west of North Wales Borough for sections that need remediation to Valley Forge Road. Along this corridor the roadway will be widened to five (5) lanes, intersections will be improved as well as improving the timing and adding turning lanes at signalized intersections. The signals will be interconnected and timing coordinated through a computerized control system. As a part of the phase east of Allentown Road, the Conrail railroad bridge will be replaced.

Upper Gwynedd is moving forward to condemn a small part of the Fitzpatrick Container property to facilitate the installation of a traffic signal at North Wales Road and Beaver Street.

North Wales Road and Morris Road

A temporary traffic signal has been installed. A construction project to realign this intersection, including a permanent traffic signal, has been approved by PennDOT and local municipalities (Whitpain and Worcester Townships). Estimated time of the start of construction is by the end of 2004.

Turnpike Slip Ramps

The Pennsylvania Turnpike Commission has abandoned plans to build slip ramps at Schultz Road in nearby Worcester Township. However, this will not affect the proposed widening which will proceed to add a lane in each direction.

Classification of Streets

According to the Township Subdivision and Land Development Ordinance, all roads within Upper Gwynedd Township shall be classified as one of the following: primary - arterial; secondary - collector and feeder; and local - residential and cul-de-sac.

1. Arterial streets connect district centers or communities which serve large volumes of fast-moving traffic. Restrictions are placed on the access of adjacent properties. For the most part, the authority for control of access or construction within their right-of-way is vested within the Pennsylvania Department of Transportation.
2. Secondary streets.
 - a. Collector streets connect local districts with arterial streets and carry median volume traffic.
 - b. Feeder streets connect residential districts with connector streets.
3. Local streets.
 - a. Residential streets are those which are used strictly to serve residential areas and do not serve as through roads in a development.

- b. Cul-de-sac streets are those which are closed at one end and shall not be more than 500 feet long terminating in a turnaround with a minimum right-of-way radius of 52 feet and an outer paving radius of 40 feet. A permanently terminated cul-de-sac shall not be approved when a through street is practicable.

The following streets shall be designated as listed below. All other streets shall be considered local access - residential classification:

- 1. Arterials (ninety-foot right-of-way):
 - a. Valley Forge Road (T.R. 363).
 - b. Sumneytown Pike.
 - c. DeKalb Pike (T.R. 202).
 - d. Welsh Road (T.R. 63), east of North Wales Road.
- 2. Collectors (eighty-foot right-of-way):
 - a. Morris Road.
 - b. Broad Street.
 - c. Allentown Road.
 - d. Church Road.
- 3. Feeders (seventy-foot right-of-way):
 - a. West Point Pike.
 - b. North Wales Road.
 - c. Hancock Road.
 - d. Swedesford Road.
 - e. Garfield Avenue.
 - f. Supplee Road.

- g. Moyer Boulevard.
- h. Dickerson Road.
- i. Welsh Road (T.R. 63), west of North Wales Road.

Rail Transit

The R-5 SEPTA line, a commuter line, serves central Montgomery County and actually extends from Doylestown including stops in Lansdale at the Pennbrook station and the North Wales station, extending through Lower Gwynedd, Ambler, and Jenkintown and further through to Center City Philadelphia. SEPTA has recently expanded the parking facilities and the station building in North Wales Borough and this continues to be a viable and active station.

Plans are underway to improve and expand the parking lot adjacent to the Pennbrook station (the parking actually exists in Upper Gwynedd while the station is located just west of Church Road in Lansdale Borough). Improvement of the parking lot and development adjacent to the station will be accomplished through instituting the TOD - Transit Oriented Overlay District. As noted on the Land Use Plan, this is a residential option to the underlying Industrial District which creates multi-family housing and limited retail services immediately adjacent to the train station. This plan also ensures the preservation and improved maintenance of the parking lot, which heretofore had been provided via a lease over privately owned property.

These trains station provide valuable commuter access, both for residents leaving to work in Philadelphia and employees in reverse commute coming to Upper Gwynedd. It should be emphasized the North Wales station is within walking distance of the Merck Upper Gwynedd campus, currently planned for 1,200,000 square feet. The first phase of this campus (consisting of 487,000 square feet) has been completed and has been open for operation since 2002. The four remaining phases will consist of 178,250 square feet each.

The second rail line, the Conrail line, has provided limited freight service for a number of years. There has been discussion of reinstituting commuter use of this line which currently terminates at Norristown.

Liberty Bell Trail

Several years ago, the Montgomery County and Bucks County Planning Commissions conceived plans to create a county trail system that would connect 16 towns throughout southeastern Pennsylvania. A 28-mile-long recreational trail for walkers, joggers, and bicyclists, the "Liberty Bell Trail" would link towns in Montgomery County from East Norriton Township to Quakertown Borough in Bucks County.

The trail's name relates to the old Liberty Bell Trolley Line, as the trail follows the line's old path when the railroad served passengers from 1900 to 1951. The name of the trolley line came from a very loose interpretation of history. At the signing of the Declaration of Independence, the bell of Independence Hall rang to proclaim liberty throughout the land. It was a powerful moment signaling the rise of a new nation. But a year later things were going badly for Washington and the patriots. Philadelphia was about to fall into enemy hands.

The British were running low on ammunition, and it was known that they would melt the city's church bells for musket and cannon balls. The nation's Executive Council decided to send the bells to the village of Northampton, now known as Allentown. A train of 700 wagons was organized to carry military supplies to Bethlehem. The Liberty Bell was aboard one of these wagons.

The North Penn Regional Improvement Association (NPRIA) committed its support to making the trail's development a reality. Together with Montgomery and Bucks County Commissioners, and the support of individual municipalities, the NPRIA earned a Keystone Grant of \$30,000 to conduct a feasibility study for the trail.

The purpose of the study is to assess the possibility of developing a trail that follows the Liberty Bell Trolley corridor as closely as modern-day development will permit, based on a thorough review of current conditions along the 28-mile route. Where the right-of-way has been completely taken by roadways or development, an assessment will be made as to the possibility of including a bike route on the road to coexist with automobile traffic or locating a reasonable alternative route. Historic remnants of the trolley line and associated landmarks will be considered in the evaluation of alternative routes to maintain a link with the heritage of the trolley line.

The determination of the feasibility for the Liberty Bell Trail will be a joint effort between the general public, the study committee, and the consultant team.¹

Options for the Liberty Bell Trail are identified on the Future Land Use Plan.

The Wissahickon Green Ribbon Trail

This trail is proposed to link the Liberty Bell Trail to the Ft. Washington State Park, as well as intersect with the proposed Cross County Trail in Whitemarsh Township, and into Philadelphia's Fairmont Park via the Wissahickon Creek corridor. The trail is currently an existing walking path that stretches along the Wissahickon Creek from Stenton Avenue in Whitemarsh Township to a point near Lansdale Borough. The Future Land Use Plan identifies the approximate location of the informal foot paths that exist along Wissahickon Creek in Upper Gwynedd Township as outlined by Mr. David Froehlich, Executive Director of the Wissahickon Valley Watershed Association. The Green Ribbon Trail will share the PECO corridor with the Liberty Bell and Power Line Trails for a distance of approximately 1.4 miles between Moyer Boulevard and Wissahickon Avenue. Along the way a connection to the Upper Gwynedd Township municipal complex and community park is also identified.

Bicycling Road Map

The Montgomery County Planning Commission has prepared a draft *Bicycling Road Map: A Bike Mobility Plan for Montgomery County, Pennsylvania - - Part 1T*.

The Plan strives to increase the use of the bicycle as a travel mode, it focuses on increasing commuter and utilitarian bicycling as an alternative to the automobile. A major objective of the plan is to make roads safe for bicycling. Excerpted from the Plan - at Section C - are recommended bicycle routes for the greater North Penn Area (see Map at end of this chapter).

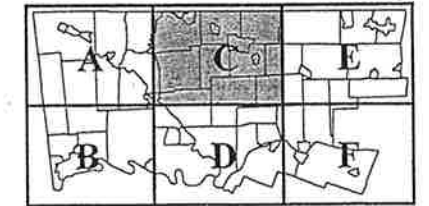
This Comprehensive Plan recognizes this effort as a worthy goal and will attempt to encourage the routes onto a sidewalk-trail system. However, use of major roadways will be difficult or dangerous unless significant expenditures - beyond the ability of Upper Gwynedd - are applied to upgrade and widen these existing roadways.

¹Excerpts from Bucks County Planning Progress, Winter 2002-2003.

Joins map Section A



Joins map Section D



Section C

Recommended Bicycle Routes

- Primary Bicycle Route
- Secondary Bicycle Route
- Urban Boundary



Scale: 1 inch equals 1.25 miles
Base map prepared by the
Montgomery County Planning Commission
March 1998

Chapter 10

TOWNSHIP PARKS AND RECREATION

Numerous active and passive parks are located in close proximity to residential communities in Upper Gwynedd Township. Smaller parks such as Garfield Avenue Park and Playground, the Township park and playground adjacent to Grace United Church of Christ, Whittaker Tot Lot, Rexdale Tot Lot, and passive open space adjacent to Sweetbrier and Ivy Lanes are examples of smaller tot lot or linear parks located adjacent to single family neighborhoods within the Township.

Parkside Place

By far the largest and most active Township park, Parkside Place provides numerous recreational and service facilities:

- Gazebo, lighted basketball courts and tennis courts, as well as two miles of walking trails are also available for active recreation.
- Parkside Place Playground.
- Parkside Deli and rest rooms.
- The DeBarth Amphitheater which hosts the Summer Breeze Concert Series.
- Large lawn areas and picnic pavilion which hosts the Annual Fall Carnival and Haunted Hayride.
- The Township administration, police and public works occupy a portion of the property adjacent to Parkside Place.

Nor-Gwyn Pool

The Nor-Gwyn Pool and adjoining parking facilities also occupy the Parkside Place Park. The Nor-Gwyn Pool was built by the North Wales Lions Club (in 1976) and is operated by the Nor-Gwyn Pool Commission which is comprised of representatives from the North Wales Lions Club, Borough of North Wales, and Upper Gwynedd Township. The pool is open from Memorial Day to Labor Day each year with memberships offered to residents of the community. Swimming lessons are offered to members and there is a swim team. The Pool has an annual membership for 5,000 persons. Residents of North Wales Borough and Upper Gwynedd Township are served first, followed by non-residents depending upon availability.

Gwynedd Wildlife Preserve

Established in 1986 through the generous donation of the Betz family, the Gwynedd Wildlife Preserve is a conservation project with the Natural Lands Trust, Inc., a non-profit conservation organization which preserves and manages environmentally important open space. The Gwynedd Wildlife Preserve consists of 240 acres located off Swedesford Road near Township Line Road. The Preserve supports a diverse variety of wildlife habitats including ponds and wetlands, open meadows, wildflower meadows, hedgerows, deciduous forests, and conifer plantings. The Preserve is open to the public who may walk the trails of the Preserve during daylight hours.

Whites Road Park

This park consists of 33 acres. Physically located in Upper Gwynedd Township, Whites Road Park is owned and maintained by the Borough of Lansdale. The property has frontage along Whites Road and can also be accessed from Green Street.

According to Carl Saldutti, Parks and Recreation Director for Lansdale Borough, Whites Road Park has the following recreational components:

- Community swimming pool complex with a full aquatic program.
- Battery of 4 tennis courts.
- Playground.
- Picnic areas.
- Walking path of 6/10 of a mile with 13 fitness stations.
- Ice skating on the front parking lot when winter weather permits.

Other programs offered during the year include:

- Summer Concert Series in the amphitheater.
- Annual Easter Egg Hunt.
- Bicycle Safety Rodeo.
- Summer tennis clinics.

Chapter 11

SURROUNDING MUNICIPALITIES

Lower Gwynedd Township

Lower Gwynedd Township's most recent Comprehensive Plan consists of a year 2000 revision. The current plan does not contain specific land use recommendations adjoining Upper Gwynedd Township. However, the following components are relevant:

1. Swedesford Road south of Sumneytown Pike is identified as an historic road which should be protected. It is noted that the relationship to Upper Gwynedd Township is such that the land uses and general low density character are compatible with each other and it should be noted that the large Natural Lands Trust property includes most of the frontage south of the SEPTA R-5 line.
2. The Circulation Plan identifies recreation trails that weave their way from Route 202 through residential neighborhoods to the Natural Lands Trust property and along land preserved by the Wissahickon Valley Watershed Association in Upper Gwynedd Township.
3. Recommended circulation improvements include:
 - Widen road to provide shoulders and left turn lanes as necessary along Sumneytown Pike.
 - The reconstruction project of Route 202 along the common boundary between the townships.

Lansdale Borough

The Lansdale Borough Comprehensive Plan is from 1973. The Plan in effect represents the existing uses at that time which are largely in place today, some thirty-one years later. The only significant change in land use is the aforementioned TOD District along Church Road, including the SEPTA parking lot. Previously, a hotel was constructed along the west side of Church Road in an area that was previously zoned for light and heavy industrial land use.

Montgomery Township

The Future Land Use Plan contained within Montgomery Township's Comprehensive Plan Update adopted March 8, 1999 contains three land use recommendations along the Welsh Road boundary with Upper Gwynedd:

- Medium low density single family residential in areas where Upper Gwynedd has zoned and developed office/commercial land use.
- Mixed Use Village Transportation Hub for a large area of Montgomery Township that has previously been commercially developed. This area fronts upon lands of Upper Gwynedd that are zoned and developed as an office campus.
- An area of Medium High Density land use which abuts the agricultural preservation area in place in Upper Gwynedd Township.

In reality, however, the land use relationships that presently exist indicate that the areas recommended for medium low density residential are actually used and developed for commercial purposes and these coincide with existing and future land use recommendations in Upper Gwynedd. In general, with the exception of the agriculture lands in Upper Gwynedd the land use relationships across municipal borders at Welsh Road are generally compatible.

Towamencin Township

Towamencin Township's most recent Comprehensive Plan consisted of an update adopted by the Township Board of Supervisors September 1994. The update was entitled Kulpsville Town Center and focused on land uses immediately adjacent to the Kulpsville exits of the Pennsylvania Turnpike Northeast Extension and Sumneytown Pike. This plan is remote from and has no relationship to Upper Gwynedd Township. Previously, Towamencin Township adopted a Comprehensive Plan in February 1989. This plan recognizes Valley Forge Road (the boundary with Upper Gwynedd) as a controlled access road with a recommended 80 foot right-of-way. Future actions recommend the widening of Valley Forge Road from Welsh Road (Route 63) to Morris Road from two to four lanes. No significant changes are contemplated in the Comprehensive Plan along the Valley Forge boundary with Upper Gwynedd Township.

Worcester Township

The 1995 Worcester Township Comprehensive Plan, Future Land Use Plan identifies industry, which would be incompatible with the lands across Morris Road in Upper Gwynedd but for the fact that a very significant facilities setback and berm buffer have been installed along the Morris Road frontage in Worcester Township. The balance of future land use recommendations consist of stretches of low density residential, medium density residential, and a small area of high density residential - which has already been developed as Bethel Grant townhouses. The Future Land Use Plan proposes no change from the existing land use patterns which presently abut Upper Gwynedd Township - with the exception of the aforementioned Reserve at Gwynedd which is a proposal for a medium density age qualified residential community constituting a significant change from the previous industrial land use - the Upper Gwynedd plan recommends that existing land uses remain intact along Morris Road as well.

Whitpain Township

The Whitpain Township Comprehensive Plan is currently being updated. The previous Plan was prepared in 1982 and updated in 1984.

Land uses south of Township Line Road in Whitpain Township are undergoing some transition, with recent industrial land uses being rezoned for apartment - more intensive residential than currently exists on the Upper Gwynedd side of Township Line Road. The balance of Township Line Road between the two townships virtually mirrors one another with pockets of either single family or open space in proximity. The only exception as previously noted is the proposed Amberly apartment development (on the grounds of the former Eastern Continuous Forms property) and a small office/automotive restoration use at the intersection of North Wales Road with Morris Road. It should also be noted that the intersection of North Wales Road with Morris Road (this is actually located in adjoining Worcester and Whitpain Townships) is proposed to be relocated so that a four way signalized intersection will be created in lieu of the separate north and south signalized approaches which presently exist.

North Wales Borough

The North Wales Borough Comprehensive Plan was prepared in 1998. The Plan basically reflects on the importance of maintaining the quality of residential neighborhoods in the Borough and reinforces the need for an important commercial center, particularly along Main Street (Sumneytown Pike); the establishment of an Historic Preservation Overlay District; and continuing the small industrial/business park development in the southwesterly edge of the Borough adjacent to Upper Gwynedd Township.

The industrial park section is buffered from adjoining Township neighborhoods by the tributary of the Wissahickon Creek corridor and the Parkside Place park and recreation property. The plan calls for a walking trail along Center Street to link Borough residents to the Nor-Gwyn Pool and Parkside Place recreation assets.

Chapter 12

COMMUNITY FACILITIES, SCHOOLS, UTILITY SERVICE

Parkside Place - Township Community Center

The Township Municipal complex, Parkside Place park and recreation complex, and the Nor-Gwyn Pool are situated at the near geographical and population center of Upper Gwynedd Township. The Parkside Place community park continues to provide core active recreation activities for Township residents as further described in the chapter dealing with Township parks and recreation. The Parkside Place complex is the largest park in Upper Gwynedd Township and the Parkside Place Master Plan was included in the *Upper Gwynedd Township Park and Recreation and Open Space Plan, 1995*. Many of the additional park and recreation facilities shown on Figure 12 of the Open Space Plan have been installed in the intervening nine years. The plan not only marks the signature recreation complex within the Township but is the community center consisting of both the Nor-Gwyn Pool complex and the newly expanded Township building. Areas for parking for larger events, such as the Boy Scout Jamboree and the Fall Carnival, are also readily available.

The soon to be completed expansion of the Township building also marks increased facility space for municipal staff and police.

Fire Protection and Emergency Service

The Upper Gwynedd Township fire station (West Point Fire House) serves as the principal fire protection service for Upper Gwynedd. In addition, the nearby communities of North Wales (North Penn Volunteer Fire Company) and Lansdale (Fairmount Fire Company) also provide services to Upper Gwynedd based on need. Emergency medical services are provided by the Volunteer Medical Services Corps.

North Penn School District

Mr. John S. Strobel, Manager of Support Services, has been contacted in an effort to identify future master plan developments for the School District within Upper Gwynedd Township. As noted in the attached letter, there are four principal elements dealing with Upper Gwynedd Township:

1. The District has no current plans to acquire property for new school sites in Upper Gwynedd.
2. The District does have plans for expansion at both Gwyn Nor Elementary School and Pennbrook Middle School.
3. The District does not have immediate plans to close any existing buildings.
4. The District does not plan to sell any existing owned properties in Upper Gwynedd Township.

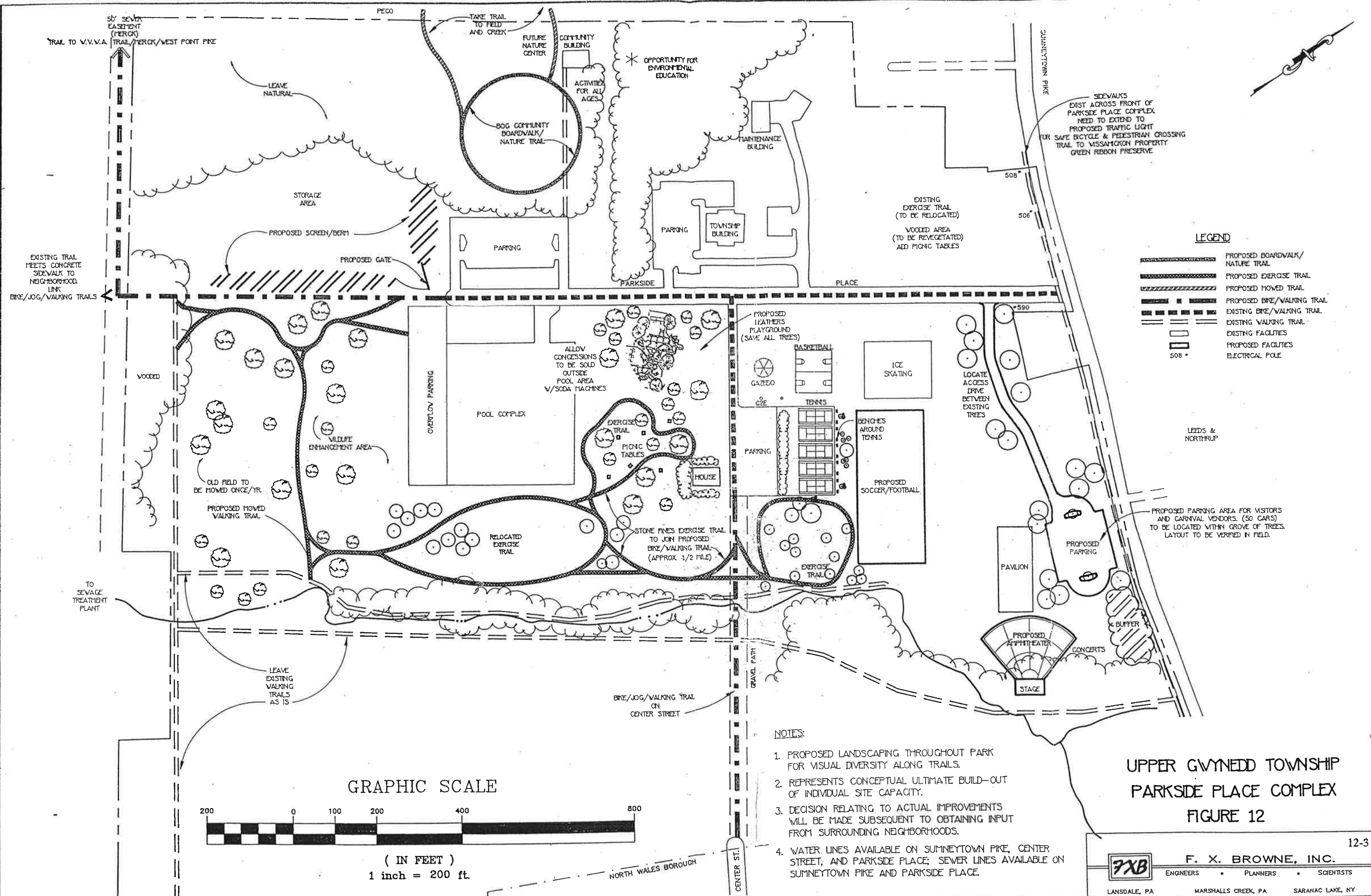
North Wales Water Authority

The North Wales Water Authority indicates they have the ability to provide Upper Gwynedd customers with an abundant supply of superior quality water. Additional information about the Authority also follows.

North Penn Water Authority

See also a letter from the North Penn Water Authority which provides service to a very small area of the Township.

Consistent with Act 68 of 2000 which amended the Municipalities Planning Code, the Water Plan for Upper Gwynedd takes into consideration that the lawful mineral extraction and commercial agriculture production may impact water supply resources. In addition, the plan for water supply by North Wales Water Authority and North Penn Water Authority shall be generally consistent with the State Water Plan and any applicable water resources plan adopted by the Delaware River Basin Commission [MPC Section 301.(b)].



July 5, 2001

E. Van Rieker, AICP
Professional Land Planner
215 Old Church Road
North Wales, PA 19454

Dear Mr. Van Rieker:

This letter is in response to your inquiry of June 27, 2001 regarding North Penn School District Facilities/properties in Upper Gwynedd Township. The school district has contracted with the Ray Group, Architects and Planners to develop a Master Plan for all North Penn School District properties within and outside of Upper Gwynedd Township.

In an effort to answer your initial questions I offer the following:

1. The District has no current plans to acquire property for new school sites in Upper Gwynedd.
2. The District does have preliminary plans for expansions at both Gwyn Nor Elementary School and Pennbrook Middle School.
3. The District does not have immediate plans to close any existing buildings.
4. Likewise, the District does not plan to sell any existing owned properties in Upper Gwynedd Township.

As our Master Plan is completed, in the next month or two, some of this information may change. My feeling at this time is that if these plans do change they would be more likely be more expansive rather than diminishing.

Thank you for allowing us to assist you in completing the Township Comprehensive Plan update. If I can be of further assistance or if you have questions about my responses to your initial questions, please feel free to contact me.

Sincerely

A handwritten signature in black ink, appearing to read 'John S. Strobel', is written over a horizontal line.

John S. Strobel

Manager of Support Services

JSS/emg



NORTH WALES WATER AUTHORITY

200 WEST WALNUT STREET, P.O. BOX 1339

NORTH WALES, PA 19454-0339 • 215-699-4836 • fax 215-699-8037

Pure water, quality service...naturally

August 15, 2002

Mr. E. Van Rieker, President
E. Van Rieker, AICP
215 Old Church Road
North Wales, PA 19454-2619

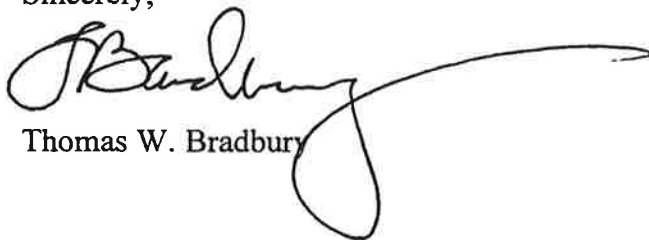
RE: Upper Gwynedd Water Supply Update

Dear Mr. Rieker,

Please find attached an update of the North Wales Water Authority's facilities and capabilities for the Upper Gwynedd Township Comprehensive Plan. Since the previous plan, the operation of our entire distribution system has changed due to the completion of the Forest Park Water Treatment Plant. The addition of this state-of-the-art facility has afforded us the ability to provide our customers with an abundant supply of superior quality water to satisfy their every demand.

I have also enclosed additional information about the Authority that may be of interest to you. Please contact me at your earliest convenience if I can be of further assistance.

Sincerely,



Thomas W. Bradbury





2002 UPPER GWYNEDD TOWNSHIP WATER SUPPLY UP-DATE

The North Wales Water Authority provides potable water service to 26,531 residential, commercial and industrial customers in Bucks and Montgomery Counties. We currently have 4,085 service connections in Upper Gwynedd Township, some of which are supplying multiple unit residential facilities. The Authority also provides public and private fire protection to the residents and businesses of Upper Gwynedd Township and maintains 328 public fire hydrants throughout the township.

The NWWA has undergone dramatic changes in the areas of water supply and distribution during the past ten years. The Authority was primarily a supplier of ground water operating over 30 wells that were supplemented by inter-connections with Pennsylvania American (Keystone Division) and Philadelphia Suburban Water Companies. With the completion of the Forest Park Water Treatment Plant, which is part of the Point Pleasant Diversion Project on the Delaware River, 85% of the Authority's water supply is now surface water. The Authority has been able to shutdown and abandon many of the wells that were either poor producers or attributed to water quality problems. The inter-connections with PA-American and Suburban are in a stand-by condition and are used on emergency basis only. The Authority has now positioned itself as a regional supplier of water with bulk sales to other utilities and townships.

Forest Park, which is jointly owned and operated by the North Wales and North Penn Water Authorities, has significantly enhanced the quality of water that we supply our customers. The treatment plant has a current capacity of 30 million gallons per day (MGD) and planning is under way to expand the capacity to 40 MGD. This should be sufficient to satisfy the future demands of the region until the year 2040, or beyond. Many of the aesthetic problems that were attributed to the ground water supplies have been eliminated and the use of ozone as the primary disinfectant in conjunction with biological active carbon filtration assures continued supply integrity.

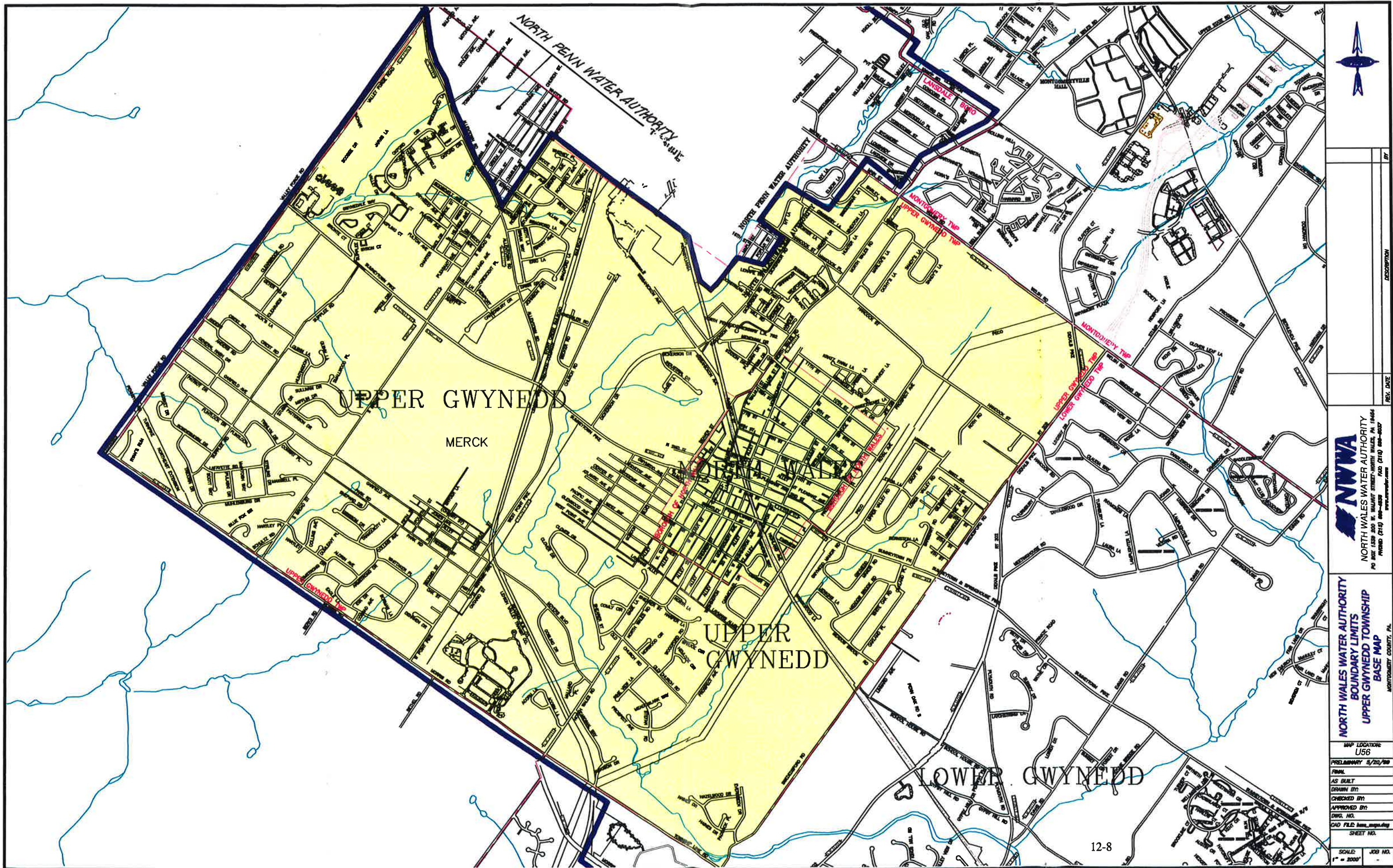
The Authority still maintains 13 wells that operate on system demand. There is only one active well operating in Upper Gwynedd Township, on Moyer Boulevard just above North Wales Road. Water is disinfected at this source with hypochlorite solution before being pumped into the distribution system. The entire North Wales Water Authority distribution system is monitored by a state-of-the-art Supervisory Control and Data Acquisition (SCADA) System.

The Authority is continually working toward the goal of supplying the entire system with superior quality water from Forest Park. Upgrades in the distribution system and increased transfer capabilities will allow us to accomplish this goal. Additionally, the residents of Upper Gwynedd Township have, and will continue to benefit from expansion of the Merck facilities. Between 2002 and 2006, the Authority has planned expenditures of approximately thirteen million dollars (\$13,000,000) for treatment and distribution system upgrades for the purpose of increasing capacity into the Upper Gwynedd area.



At the beginning of this year, the Authority updated its Emergency Response Plan and provided copies to both the Southeast Regional Office of the Pennsylvania Department of Environmental Protection and the Montgomery County Local Emergency Planning Committee. Currently, the Authority is in the preliminary stages of performing a system-wide, source-to-tap, vulnerability assessment as required under recently passed federal legislation. When this assessment is completed and submitted to the United States Environmental Protection Agency, the Emergency Response Plan will again be revised to address any issues brought to light by the assessment.

Every customer of the North Wales Water Authority has the implicit faith that there will always be sufficient supplies of excellent quality water to satisfy their demands. The Authority is proud of the many accomplishments we have achieved to provide our customers with an abundant and reliable supply of water that far exceed all state and federal regulations and is safe under all foreseeable conditions, now and in years to come.



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NWMA
NORTH WALES WATER AUTHORITY
PO BOX 1330 200 W. WALNUT STREET-NORTH WALES, PA 19404
PHONE (215) 688-4000 FAX (215) 688-4007
www.nwma.com

**NORTH WALES WATER AUTHORITY
BOUNDARY LIMITS
UPPER GWYNEDD TOWNSHIP
BASE MAP**
MONTGOMERY COUNTY, PA

MAP LOCATION:	U56
PRELIMINARY:	5/20/99
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NORTH PENN WATER AUTHORITY

300 FORTY FOOT ROAD, P.O. BOX 1659
LANSDALE, PA 19446

TEL: 215-855-3617
FAX: 215-855-2756
www.northpennwater.org



August 13, 2002

E. Van Reiker, AICP
215 Old Church Rd
North Wales PA 19454

SUBJECT: WATER SUPPLY, UPPER GWYNEDD TOWNSHIP

Dear Mr. Van Reiker:

In response to your letter of July 26, 2002, regarding the water supply for Upper Gwynedd Township we offer the following comments.

North Penn Water Authority has a Water Master Plan and is currently in the process of updating it. As you indicated, we serve a very small area of Upper Gwynedd. This portion of our service area is supplied with an ample and reliable supply of water and our plan ensures that it will remain this way for the foreseeable future.

If you have any questions, please do not hesitate to contact me.

Sincerely,

NORTH PENN WATER AUTHORITY

Daniel C. Preston, P.E.
Facilities Director

Chapter 13

LOCAL WATER RESOURCES

Background

When it comes to planning, water resources management has not historically been the topic of highest priority, particularly in the northeastern United States. The traditional approach to the issue of stormwater in populated municipalities is to drain it into pipes and channels, and convey it away from a given area as quickly as possible. Let someone downstream worry about it. Now many public officials are beginning to rethink that strategy. They are realizing that stormwater truly is a resource to be protected.

Surface Water Quantity

The flows in many southeastern Pennsylvania streams are often very erratic. They can range from a trickle on any given summer day to a raging torrent overnight caused by a thunderstorm. Natural dampeners to this type of volatile hydraulic response have been diminished as a result of urban growth.

Drought conditions are very stressful to aquatic environments. Water temperatures increase and dissolved oxygen levels decrease. Algae often flourish. Other more desirable organisms, such as fish, cannot tolerate such extreme conditions.

On the other end of the spectrum, excessive stormwater runoff is a major cause of flash flooding, stream bank scouring, habitat destruction, and streambed sedimentation. This problem can be greatly exacerbated when peak discharges from various portions of a drainage area coincide and/or accumulate as the water moves downstream.

For the last 30 years or so, the standard mechanism for attenuating peak discharge rates has been the detention basin. However, engineers have come to the realization that detention basins do nothing to reduce the total *volume* of runoff. They also do not generate any water quality benefits. In some cases, they cause more problems than they solve.

The ultimate goal should be to get as much water into the ground as possible. Some of that water will seep laterally and exit the ground in the form of springs. These springs maintain the base flow in a stream during dry periods. The remaining water will infiltrate deep into the bedrock and recharge local aquifers. Hence, the volume of runoff should not be allowed to increase as a result of development.

Under the Pennsylvania Stormwater Management Act (Act 167), counties are required to establish a watershed based stormwater management plan for each designated watershed. Funding has generally been available from PADEP to cover 75% of the cost for developing the plan. The recommendations in the plan are to be implemented by each of the affected municipalities.

PADEP has refined the Act 167 program over the past few years to include more complete consideration of water quality impacts associated with new land development. It should be noted that many watersheds in Montgomery County have been or are in the process of being studied.

Surface Water Quality

In Pennsylvania, specific water quality standards for every stream and water body have been established in Title 25, Chapter 93. These standards consist of designated uses for each stream (such as recreation, potable water supply, etc.). They also consist of scientific criteria that define what chemical and biological compounds are allowable without affecting those designated uses. Many parameters are listed covering all types of pollutants, such as fertilizers, pesticides, salts, bacteria, and metals.

Since the late 1990s, PADEP has undertaken an assessment of waterways throughout the Commonwealth. Results so far indicate that many of the streams, in all types of settings, are "impaired". One of the main sources of degradation is polluted runoff. Those streams that are impaired are placed on the so-called 303(d) list and earmarked for remedial action in the form of TMDLs (Total Maximum Daily Loads).

When Congress passed the Federal Water Pollution Control Act Amendments in 1972 (PL92-500), they stated as one of the primary goals that all surface waters in the United States shall once again be suitable for fishing and swimming. Dramatic progress has been made toward this objective, but in most areas the goal has not yet been fully achieved.

At first, the EPA and state agencies focused on reducing major pollution from municipal and industrial wastewater treatment plants. Next, they concentrated on stormwater runoff from cities, industrial facilities, and large construction sites. Under the auspices of the NPDES Phase II program, EPA is now requiring many additional municipalities in metropolitan areas to control pollution in runoff from municipal operations, small construction sites, and many other portions of publicly owned storm sewer systems. Permit applications were due by March 10, 2003.

Stormwater discharges in urban and suburban areas are a concern because of the high concentrations of pollutants found in these discharges. Development in urban areas substantially increases impervious surfaces such as streets, driveways, parking lots, sidewalks, and rooftops, on which pollutants from human activities are deposited and remain until a storm event washes them into nearby storm drains. Also fertilizers and pesticides are applied in high quantities to lawns and gardens.

When pollutants exit the land via sheet flow they are said to come from nonpoint sources. This phenomenon is very localized. When the runoff concentrates in gutters, swales, pipes, and other types of conduits it is then classified as a point source. The latter is what the law regulates.

It is the goal of PADEP to control pollutants as close as possible to the source. Measures for accomplishing this control are known as Best Management Practices (BMPs). *Permanent* BMPs can take the form of either structural or nonstructural measures. An example of the latter would be to add a provision to local ordinances requiring the preservation and protection of riparian buffers. Another approach would be to save certain open spaces within a proposed development. There is no better solution than to minimize the disturbance of existing soils, and to promote the growth of native plants and trees.

A number of potential structural approaches are outlined in the *1998 Pennsylvania Handbook of Best Management Practices for Developing Areas*. These include such measures as the use of grass swales, bioretention areas, constructed wetlands, porous pavement, and infiltration trenches.

Pennsylvania regulates *temporary* stormwater impacts resulting from construction under the Erosion and Sedimentation Control Program. All earth disturbances of 5,000 square feet or greater require the preparation of an erosion and sedimentation control plan under Title 25, Chapter 102. This program will remain in effect.

Evolving PADEP Policy

In October 2001, the PADEP issued a draft version of the “Proposed Comprehensive Stormwater Management Policy”. It is their stated goal to improve water quality, sustain water quantity, and integrate federal stormwater management obligations by means of existing authority. This comes after years of addressing these issues separately.

PADEP is proposing a “best management” approach to stormwater control that will generally encourage, and sometimes require, infiltration of stormwater flows. This approach will reduce pollutant loading to streams, recharge groundwater tables, enhance stream base flows during times of drought, and reduce the threat of flooding and stream bank erosion resulting from storm events.

Another way of phrasing this goal is that PADEP would like municipalities and developers to avoid any further impacts to the natural hydrologic balance. Persons proposing new projects should calculate a pre-construction and post-construction water budget. In general, post-construction infiltration would have to equal pre-construction infiltration.

Administratively, PADEP is proposing to integrate the NPDES permitting program with stormwater management plans developed on a watershed-wide basis under Act 167. These Act 167 plans will include both water quality and quantity protections to be implemented by municipalities within the given watershed.

PADEP would also like to shift the emphasis from municipal boundaries to watershed boundaries. This will require a degree of cooperation between municipalities. Municipalities should also coordinate with the Montgomery County Planning Commission and the Conservation District.

For the most part the above programs are aimed at new development. Other considerations may be necessary where problems are being experienced under current conditions. Existing stormwater facilities should be maintained. Some should probably be retrofitted to meet current standards. See Appendix for the benefits of natural stormwater basins.

PADEP continually evaluates data defining the chemical, biological, and physical characteristics of each stream in the Commonwealth to determine whether any portion or portions of the stream are "impaired". In general, a designation as impaired refers to a stream segment which would not be able to support its designated uses (such as fishing, swimming, drinking water supply, etc.), even after the appropriate water pollution control technologies have been applied by all permitted dischargers of treated wastewater.

Typical categories of impairment in southeastern Pennsylvania are siltation, low dissolved oxygen, excessive algae, habitat modification, toxicity, and flow variability. There are dozens of chemical compounds and other deleterious substances that enter the streams through various pathways and cause these problems. They may originate from point sources (like municipal or industrial discharges) or from nonpoint sources (such as urban runoff).

If an impaired segment is identified by PADEP it must be listed in the Section 303(d) report that is issued biennially to the EPA. The pollutants or conditions causing the impairment must also be listed, along with their sources. The latest listing may be found at the following website:

<http://www.dep.state.pa.us/dep/deputate/watermgt/watermgt.htm#WaterQuality>

By law, Total Maximum Daily Loads (TMDLs) must then be developed in order to protect and restore each stream segment. A TMDL is defined as the maximum number of pounds per day (for each offending chemical compound) that is acceptable while still allowing the stream to achieve its uses. These allowable waste load allocations are divided equitably among the various landowners and municipalities throughout the watershed, who are then charged with controlling discharges during both dry and wet weather.

Upper Gwynedd Township

Upper Gwynedd Township lies near the headwaters of two separate subbasins. More than half of the Township drains southward to the Wissahickon Creek. The remainder drains westward to the Towamencin and Zacharias Creeks, which are tributaries to the Skippack Creek. All of the streams in Upper Gwynedd are small, ranging in size from first order through third order tributaries.

Wissahickon Creek Subbasin

The Wissahickon Subbasin is classified as “TSF”, meaning that it is of sufficient quality for the maintenance of a trout-stocking fishery from winter through spring. Trout stocking actually is performed by the PA Fish and Boat Commission at downstream locations. For the rest of the year the stream can only support a warm water fishery (i.e., an aquatic ecosystem of lower quality). Other year-round water uses protected by Title 25, Chapter 93 include potable water supply, wildlife water supply, fishing, water contact sports, and esthetics.

The stream and its tributaries have been assessed by means of physical, chemical, and biological measurements. More than 24 miles along the main stream, and almost 30 miles of tributaries have been classified as significantly impaired. The source of impairment as shown on the 303(d) list are water/flow variability, hydromodification, habitat alterations, siltation, nutrients from urban runoff/storm sewers, and treated municipal wastewater discharges. Only a few small tributaries were classified as unimpaired. Therefore, PADEP is requiring the development of TMDLs to reduce the quantity of contaminants from point and nonpoint sources.

According to the PADEP Watershed Restoration Action Strategy, the Wissahickon is located in a Category 1, FY99/2000 Priority watershed. Recently, under the auspices of the Environmental Futures Planning Process, PADEP has identified four new overall priorities for this watershed: (1) mitigate stormwater impacts; (2) reduce stream impairments; (3) collect and interpret water supply data; and (4) reduce waste and increase recycling and reuse.

No Act 167 study has yet been performed on the Wissahickon. A Rivers Conservation Plan was completed in 2000, but few of the recommendations have yet been implemented. In particular, no ordinances have been changed to reflect the conclusions and recommendations presented therein.

Skipack Creek Subbasin

The Skipack Subbasin is also classified as “TSF”. It supports similar uses and is stocked with trout, like the Wissahickon Subbasin.

PADEP biologists have determined through the Unassessed Waters Program that the Skippack Creek watershed has the poorest quality of any stream evaluated so far in Subbasin 3E. Both Skippack Creek and its tributary, Towamencin Creek, receive discharges from sewage treatment plants that adversely affect their water quality. Almost seven miles of Towamencin Creek are shown on the 303(d) list as impaired due to excessive algal growth and water/flow variability from a municipal point source and residential development. Siltation is also a problem. TMDLs will be required for this subbasin.

According to the PADEP Watershed Restoration Action Strategy, the Skippack and its tributaries are located in a Category 1, FY99/2000 Priority watershed. Recently, under the auspices of the Environmental Futures Planning Process, PADEP has identified five new overall priorities for this watershed: (1) reduce the number of impaired; (2) develop and implement strategies for the reduction of pollutants discharged from development sites; (3) establish a groundwater monitoring network; (4) reduce property damage and loss of life from inadequate storm water management; and (5) determine the need to expand existing education programs.

Although municipalities in the Skippack Subbasin have implemented a few local restoration measures, no watershed-wide studies or projects have been performed. Neither a River Conservation Plan nor an Act 167 Study has been undertaken.

NPDES Phase II Program

NPDES (National Pollution Discharge Elimination System) is a program run by the Federal Environmental Protection Agency designed to stop pollutants from traveling into the groundwater aquifer from stormwater discharges. Phase II of the program includes the adoption and enforcement of an ordinance to protect the quality of water in the Township and penalize individuals who illegally dump prohibited materials in creeks and streams. Upper Gwynedd Township has adopted such an ordinance based on the model provided by the Pennsylvania Department of Environmental Protection.

(Mr. Kirk Horstman, P.E. contributed to this chapter.)

APPENDIX

CHAPTER I

HISTORY

INTRODUCTION

The early histories of Upper Gwynedd and of Gwynedd are essentially one and the same. Gwynedd was originally settled about 1690. The name Gwynedd is derived from a Welsh term, "Gwinith," meaning white, pure land. This name was given to the area by the early settlers. Gwynedd included that land which is now the townships of Upper and Lower Gwynedd, the borough of North Wales and parts of Ambler and Lansdale boroughs. In 1869, approximately 100 acres of land was separated from Gwynedd to form the borough of North Wales. Upper Gwynedd came into existence in 1891 when Gwynedd Township was divided into the townships of Upper and Lower Gwynedd.

COLONIAL SETTLEMENT

Migration from Philadelphia into the surrounding areas had begun by the end of the 17th century. No record of the date of Gwynedd Township's establishment has been found. However, it is believed that early settlement began about 1698, since William Penn preached at the Gwynedd Friends Meeting prior to his return to England in 1701.

In 1692, Hugh Roberts, a leading Quaker in the Welsh settlement at Lower Merion, visited Wales. There Roberts convinced other Friends living in northern Wales to seek a home in Pennsylvania. This Welsh-Quaker group sent William John and Thomas Evans to Pennsylvania to make arrangements for their arrival. When the two men reached Philadelphia in late 1697, they bought 7,820 acres in what became Gwynedd. When this 7,820 acres was resurveyed by Penn's Commissioners of Property in 1741, it was found to contain 11,449 acres.

During the early days of settlement, the Wissahickon Creek provided power for three grist mills. Trewern and Willow Run Streams and their branches provided irrigation but no water power for the early settlers.

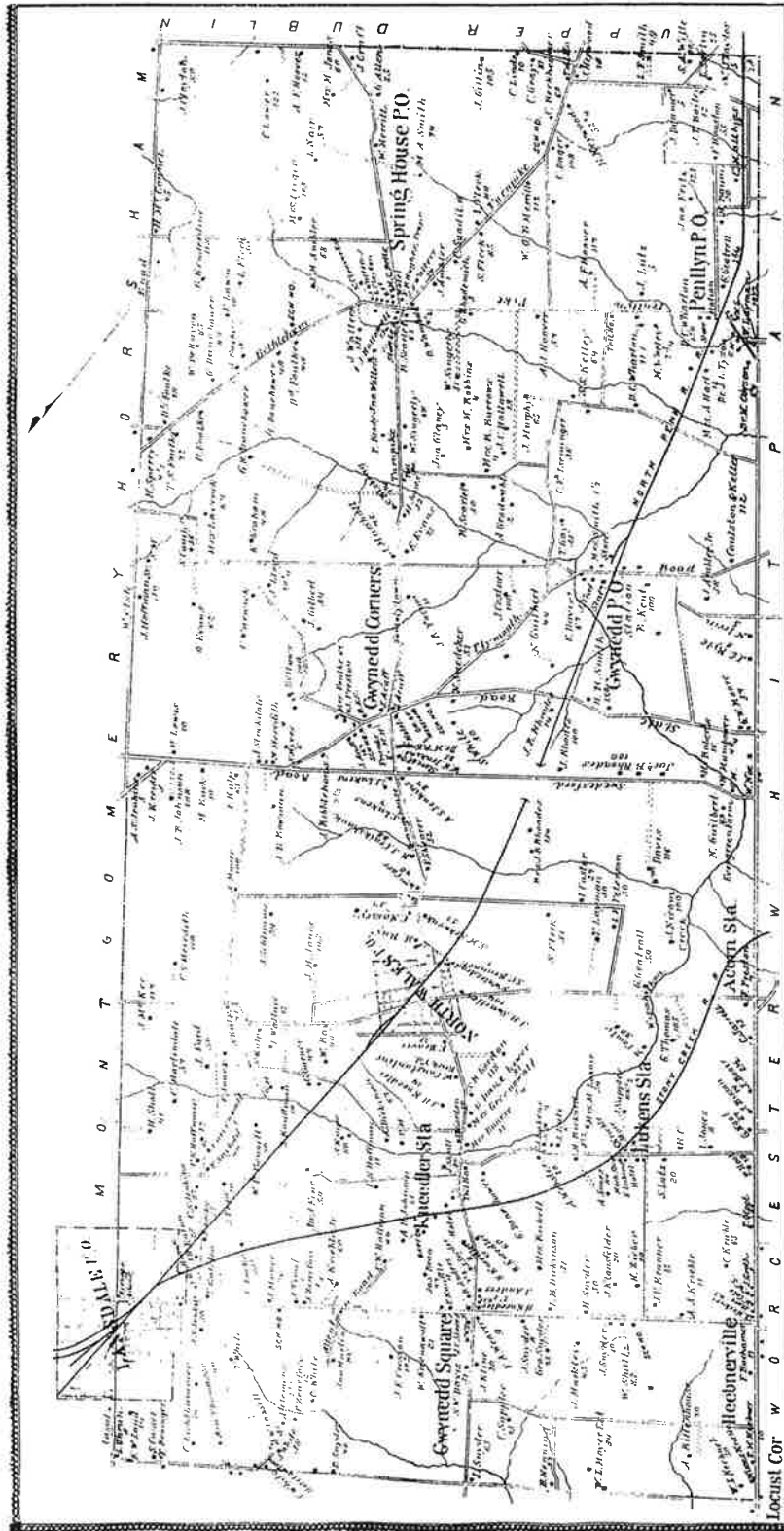
German immigrants followed the early Welsh settlers. By the time of the Revolution, they constituted a majority of the population.¹

EARLY ROADS AND TURNPIKES

The early settlers were able to get their road petitions approved by the provincial and county governments in Philadelphia. Therefore, even though Gwynedd Township was on the frontier of the southeastern Pennsylvania settlement, road construction began early in the township's history. The first petition, dated 1702, called for the opening of a road to the grist mills on Pennypack Creek. The road was subsequently built and is now known as Welsh Road. In 1704, there was another successful petition for a road to Whitemarsh and Philadelphia. This road, then known as North Wales Road, terminated at Spring House until 1735 when it was extended to the Lehigh River; it is now known as Bethlehem Pike. Other early roads which were built included Plymouth Road in 1717, a road to Horsham in 1723, a road to the Perkiomen region in 1728 and Swedesford Road in 1734. The original North Wales Road ran through the center of Gwynedd. In 1704, this old Indian trail connected Spring House with Towamencin Township. It later extended to Sumneytown and into Berks County. This road, the Sumneytown Pike, was one of the routes that opened the way for colonial expansion westward. These early roads, which were merely rutted tracks, set the pattern of land use and movement in colonial days. They provided access to meeting houses, mills and markets. With few exceptions, these roads, which were opened in the 18th century to meet the needs of their time, are the same routes in use today.

Gwynedd

From ATLAS OF MONTGOMERY COUNTY by J. D. Scott, 1877



Many of these early "pikes" were built and operated by private turnpike companies as toll roads. The Chestnut Hill to Spring House turnpike was chartered May 5, 1804 and was extended into Bucks County in 1813. The Sumneytown to Spring House turnpike was incorporated in 1845 and completed in 1848. In 1884, a turnpike through the village of West Point was constructed. This road, a mile and a quarter in length, connected Morris Road with Sumneytown Pike at Kneeder Station. Stone bridges over the Wissahickon were constructed as follows: the Sumneytown Pike crossing in 1819, the State Road crossing in 1833 and the Plymouth Road crossing in 1839.²

THE REVOLUTION

Although the early Welsh settlers were joined by settlers of German descent, there was little if any change in the character of the settlement. Names such as Dannehower, Hoover and Lukens took their places beside those of Evans and Foulke as leaders of the community.

The people of Gwynedd were fortunate in escaping the disasters of the Revolution. The sympathies of both the Welsh and the German were inclined toward the Revolutionary side. During this period, Friends, Mennonites, Schwenkfelders and Dunkards, who were opposed to bearing arms because of conscientious scruples, constituted a decided majority of the population. They did not actively engage in the fighting. However, according to tradition, the old Friends Meeting House in Gwynedd was used as a hospital immediately after the Battle of Germantown.³

THE RAILROAD ERA 1857 - 1918

The agricultural economy of Gwynedd Township was affected by the construction of railroads. The North Penn Railroad Company was chartered in 1853 to build a line to connect Philadelphia and New York to the Lehigh Valley with its route running through Gwynedd. Train service as far as Gwynedd began in the summer of 1855, but extension was delayed as a result of the need to bore a tunnel through Gwynedd Hill. The North Penn Railroad reached Lansdale in 1856; from there subsequent branches were built to Doylestown and Bethlehem. The line to New York was never completed. The North Penn Railroad Company is now the Bethlehem branch of the Reading Railroad Company.⁴

The North Penn Railroad's completion aided in bringing prosperity to the Gwynedd area. It ran through the township with stations at Penllyn and Gwynedd. The Stony Creek Branch of the railroad traversed the township and connected with the North Pennsylvania Railroad at Lansdale. This rail line was completed in 1874, and its stations in Gwynedd Township were named Acorn, Lukens or West Point and Kneeder.

The effect of the railroad is indicated by the census: in 1800, the census counted 906 inhabitants; in 1840, 1,589 inhabitants; and in 1880, 2,041 inhabitants. By 1876, the township had seven stores, three dealing in flour and feed, three in coal and one in lumber. The census of 1850 listed 262 dwellings, 278 families and 193 farms. Three hotels and three general stores were licensed in 1883. By 1883 there were six public schools. By 1884 there were post offices at Gwynedd Village, Spring House, Penllyn, West Point and Gwynedd Station. In 1885 West Point was the largest village in the township. This was the site of the West Point engine works and machine shops built in 1876.⁵ In those days the inhabitants of the thriving North Wales Borough and the surrounding Gwynedd countryside did much business with travelers from Philadelphia and summer residents who had homes in the country. The railroad provided direct transportation from Philadelphia. Later, trolley car service was available to Gwynedd residents to Norristown, Allentown and Edenheim at the edge of Philadelphia.

Despite the railroad's dominant influence on the growth of the boroughs of Ambler, North Wales and Lansdale, it did not change the character of Gwynedd, which remained predominantly rural until the 1950's. The personal desires of the property owners may have been a deciding factor in controlling the development around the railroad stations. With improved rail communications to Philadelphia, many country estates owned by leaders of Philadelphia society were concentrated in Lower Gwynedd, and there were several in the eastern section of Upper Gwynedd as well.⁶

The separation of Gwynedd Township into Upper and Lower Gwynedd townships occurred in 1891. It was preceded by the division of the township into two election districts, following the then popular trend toward smaller sized governmental units.

THE AUTOMOBILE ERA (1917 TO PRESENT)

Community life in the county underwent radical changes in the early 1900's as the automobile came into common use and highways were improved. Many businesses dependent upon the horse declined, such as the village blacksmith, the wheelwright shop and the saddler shop. In many instances, country stores closed because the people drove to the towns to do their shopping. Memberships in rural lodges declined because young men preferred the amusements offered in the towns which were now readily accessible by the automobile.

The popularity of the automobile accelerated the development of the lower part of the county. However, Upper Gwynedd did not experience much change prior to the 1950's. The use of the automobile opened up suburban Philadelphia. Between 1920 and 1940, there was a considerable loss of population in the outlying townships. The trend has completely reversed since 1950. (Lansdale annexed portions of Upper Gwynedd in 1922 and in 1962. North Wales annexed a portion of Upper Gwynedd in 1958.) Due to the relocation of industries from Philadelphia to the township in the 1940's, Upper Gwynedd experienced significant development. Industrial concerns employing large numbers of people have moved into Upper Gwynedd placing a strain on all the township facilities. The population of the township has more than tripled from 1940 to 1960. The major problem facing the township today is controlling this growth.

PLANNING IN UPPER GWYNEDD

Since 1963, Upper Gwynedd has been a first class township. It receives its power from the state legislature as described in the First Class Township Code.

The following is a list of titles of elected and appointed officials.

ELECTED TOWNSHIP OFFICIALS

Board of Commissioners
Board of Auditors
Treasurer and Tax Collector
Justice of the Peace
Constables

APPOINTED TOWNSHIP OFFICIALS

Secretary and Manager
Solicitor
Police Matron
Zoning Officer
Representative to North Penn
Area Planning Council
Plumbing Inspector

Assistant Secretary
Engineer
Police Surgeon
Building Inspector
Representative to Wissahickon
Valley Watershed Association

MEMBERS OF:

Police Department
Zoning Hearing Board
Township Authority
Board of Health

Civil Service Commission
Planning Commission
Upper Gwynedd-Towamencin
Municipal Authority

Upper Gwynedd's first zoning ordinance was enacted in 1942, and its first subdivision regulation was enacted in 1950. The preliminary plan for the township was drafted in 1953. In 1963 the township joined with 10 nearby municipalities to form the North Penn Area Planning Council.

Growth problems arising from industrialization of a township such as Upper Gwynedd should not be solved by stopgap measures. Upper Gwynedd's participation in the North Penn Area Planning Council is a positive step toward solving these problems.

The comprehensive plan for Upper Gwynedd Township has been related to the North Penn Area as a whole. The plan not only takes into consideration the developmental trends occurring in the township itself, but is compatible with those which are taking place in the areas of the North Penn, Montgomery County and the Philadelphia Metropolitan Area.

Effort has been made to reflect the needs and desires of the citizens of Upper Gwynedd in this comprehensive plan for the township. However, it should be recognized that no plan, however comprehensive, is a complete answer to the problems of rapid growth and urbanization. However, such a plan identifies those specific problems for which solutions are essential, makes recommendations to foster orderly community development and offers the tools to implement its recommendations. The comprehensive plan is a guideline for the officials and citizens of the township to use in order to accommodate rapid growth and hopefully to provide a desirable environment in the future.

HISTORIC PRESERVATION

Historic preservation essentially aims to preserve any site, construction or area that is known to have a distinct bearing upon the history of a township or borough. Structures built prior to the Revolution, during the Revolutionary Era and even during the railroad period of Upper Gwynedd's history should be evaluated for the purposes of historic preservation.

The comprehensive plan for the North Penn Area recommends that a North Penn historical society be established. However, until such a society is established, the citizens of Upper Gwynedd should initiate action to preserve and restore historic sites.

When considering the possibility of preserving any site of historical or architectural value, two types of significant areas can be identified:

1. The isolated site containing one, or at most, a few structures
2. The small, concentrated settlements which possess unusual historic and architectural characteristics worthy of incorporation into a developing community

One method of preserving historic sites is through the adoption of historic district legislation by the township. Historic district legislation, as enacted by the State of Pennsylvania, is one device of insuring a desirable blending of the past and present. This type of legislation may well prove to be a far more effective device for guiding those areas of exceptional character than present zoning practices. To aid in the implementation of the state legislation, the Montgomery County Planning Commission has prepared a model ordinance. The model ordinance, when used in conjunction with the comprehensive plan, could aid the township in utilizing the state legislation wisely, "and in applying a historic district zoning ordinance to suit the needs of the community."

CHAPTER II

REGIONAL SETTING

INTRODUCTION

Upper Gwynedd Township is facing the problems of suburbanization created by 20th century technology. The problems that arise as well as the urban growth patterns that take place within any given locality are often the direct result of growth patterns occurring within the geographical region surrounding it.

Upper Gwynedd is a part of the rapidly urbanizing area along the eastern seaboard of the United States known as Megalopolis. Megalopolis extends from the Massachusetts Bay area to the Potomac Valley. Formerly an outpost for colonial settlers from European nations, Megalopolis holds a position of world leadership today, and its growth during the post World War II period has been phenomenal.

No discussion of Upper Gwynedd would be complete without an understanding of the Philadelphia Metropolitan Statistical Area. Philadelphia, one of the most important areas in Megalopolis, is centrally located within one of the most heavily populated areas of the United States.

The Philadelphia Metropolitan Statistical Area consists of Bucks, Montgomery, Philadelphia, Chester and Delaware counties in Pennsylvania and Gloucester, Camden and Burlington counties in New Jersey. In 1960, the United States Bureau of the Census defined an urbanized area as containing at least one city of 50,000 or more inhabitants as well as those communities surrounding the city which are not separated from it by land which is rural in character. In 1958, the Study Commission of the Philadelphia Metropolitan Area issued a report which clearly illustrates the dynamic aspects of the population trends within its area. Between 1920 and 1957, the population of the urbanized area in southeastern Pennsylvania grew by 58 percent. The total land area, which may be considered as urbanized under the definition of the Bureau of the Census, during this same period increased from 251 square miles in 1920 to 647 square miles in 1957 (see figure ii-1).

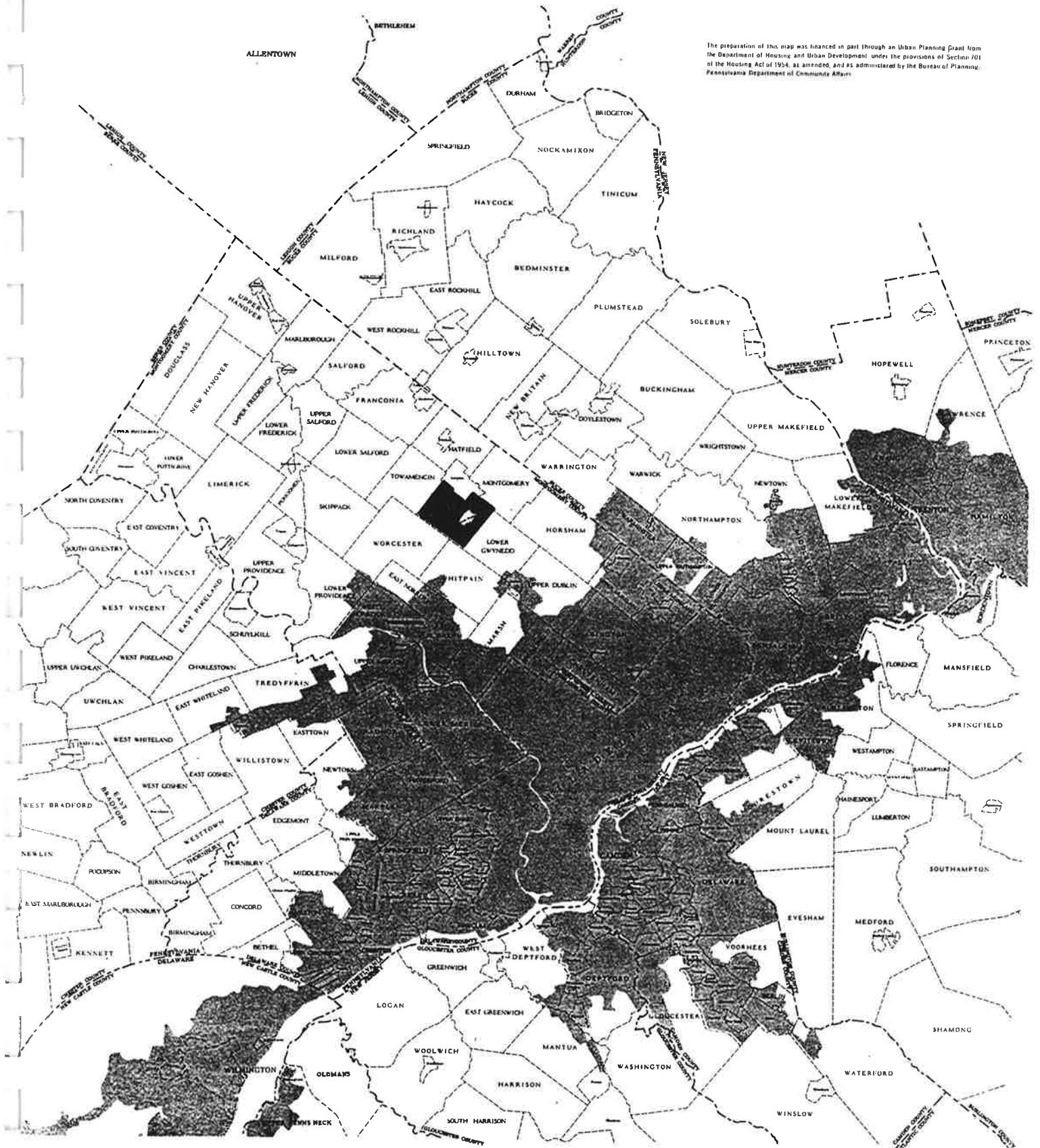
As can be seen in figure ii-1, the urbanized area surrounding the city of Philadelphia has not yet reached the North Penn Area. It has already touched portions of Horsham, Lower Gwynedd and Whitpain townships. If the rate of urbanization continues, the eastern communities of the North Penn Area may expect to be included within the urbanized area within a few years.

The trend toward suburbanization will increase the demand for areas zoned industrial, commercial and high density residential including apartment development. Within Upper Gwynedd there are evidences of this trend. Suburbanization means the gradual disappearance of farms as well as other types of undeveloped land. As was indicated earlier in this chapter, the forces behind this rapid growth are regional in nature. Urban growth has moved outward from the original centers of population concentration. Local efforts to maintain a rural or semi-rural character within a community by means of local land use controls have historically proven to be partially effective once the pressures of suburban growth have reached the community. In the planning process, all of the various regional influences must be recognized since they will exert strong forces on the future development of the community.

In addition to the regional influences of the Philadelphia Metropolitan Statistical Area, the township of Upper Gwynedd has many subregional factors affecting it. The subregional areas of the North Penn Area

UPPER GWYNEDD TOWNSHIP

The preparation of this map was financed in part through an Urban Planning Grant from the Department of Housing and Urban Development under the provisions of Section 101 of the Housing Act of 1954, as amended, and as administered by the Bureau of Planning, Pennsylvania Department of Community Affairs.



URBANIZED AREA: Defined by U.S. Bureau of the Census, 1960

MONTGOMERY COUNTY PLANNING COMMISSION

NORRISTOWN, PENNA.

Figure ii-1

A-9

include Bucks County, Eastern Montgomery County, Central Montgomery County, Lower Perkiomen Valley and Upper Perkiomen Valley, all of which are discussed in detail in Volume I of the North Penn Area Comprehensive Plan.

The specific types of subregional influences from the five surrounding counties are as follows:

1. People from surrounding counties are employed in the North Penn Area and do their retail shopping in the area.
2. The population growth in Eastern Montgomery County is being felt in the North Penn Area. Horsham and Lower Gwynedd townships have the most direct influence on Upper Gwynedd. A residential questionnaire analysis showed that 25 percent of Lower Gwynedd Township workers are employed in the North Penn Area, and 25 percent of the residents do their shopping in the Lansdale area.
3. Central Montgomery County studies show that this area and Upper Gwynedd are interdependent in the areas of employment and commerce, this interdependency will increase.
4. Although the proposed Skippack reservoir would be located in the Lower Perkiomen Valley, it would play an important role by providing recreational facilities for the North Penn and Upper Gwynedd Township residents.

THE HIGHWAY NETWORK

North Penn's transportation network played an important role in its historic development and will continue to play an important role in its future development. Upper Gwynedd has ready access to the following highways:

1. The Northeast Extension of the Pennsylvania Turnpike is the most important of the regional highways serving the North Penn Area. This facility is interregional and serves to link Upper Gwynedd with much of the Eastern United States through its connection with the Pennsylvania Turnpike. It has a bearing on Upper Gwynedd's industrial growth since the major industries depend on truck transportation.
2. U.S. Route 309 (Bethlehem Pike) serves as a main link between the populated municipalities of Eastern Montgomery County, Philadelphia and the Lehigh Valley. Much of the work force within the Upper Gwynedd industries are drawn from this area.
3. U.S. Route 202 (DeKalb Pike) runs northeasterly from the south cutting through a corner of Upper Gwynedd to Montgomery Township.
4. State Route 63, which bounds Upper Gwynedd on the north, serves as an arterial road linking Upper Gwynedd with the more populated areas of Eastern Montgomery County.
5. State Route 363 (Valley Forge Road), which forms the western border of the township, is a north-south road linking Upper Gwynedd with southern and central parts of the county.
6. Sumneytown Pike is an important east-west highway linking the eastern and western sections of the county. It is a major road connecting the industrial plants of Upper Gwynedd Township with the Lansdale interchange of the Northeast Extension of the Pennsylvania Turnpike.

In addition to the routes previously mentioned, the proposed North Penn Expressway and alternate U.S. Route 202 now under study will have a direct effect on Upper Gwynedd's traffic circulation. The North Penn Expressway will relieve traffic on Sumneytown Pike, provide a direct connection with the Northeast Extension of the Pennsylvania Turnpike and provide direct access to Philadelphia. Alternate Route 202 will connect Upper Gwynedd with the Norristown-King of Prussia area as well as form a connection with Doylestown and other portions of Bucks County.

LOCAL AND AREA FACTORS AFFECTING THE TOWNSHIP

Upper Gwynedd historically has been readily accessible to downtown Philadelphia, a distance of about 25 miles. The trip to Philadelphia's City Hall takes approximately 50 minutes by car and 40 minutes by the commuter rail service. The well established industrial sections of northern Philadelphia, especially the Hunting Park and Erie Avenue complexes, are even more easily accessible to the township. The Fort Washington Expressway (309) now provides the township with access to the northern extremities of Philadelphia.

Upper Gwynedd is accessible by highway, although public transportation to the many new centers of employment now springing up in the Philadelphia Metropolitan Area is not available. Fort Washington Industrial Park is about 15 minutes driving time from most parts of Upper Gwynedd. Slightly further removed are the many new industrial and research facilities in Whitpain, Upper Moreland, Horsham, Whitemarsh and the Valley Forge area. Excellent access to the Pennsylvania Turnpike, via the Fort Washington Expressway, brings more industrial developments within commuting distance of Upper Gwynedd. North Wales Road is a north-south route through the township running south to East Norriton and north to Route 309.

The rapidly changing North Penn Area is a key factor in determining the future of Upper Gwynedd. The growth of the township is influenced by the growing Lansdale Borough and the expected suburbanization of the western townships within the North Penn Area. Upper Gwynedd completely surrounds the borough of North Wales which provides some services to Upper Gwynedd. North Wales was partially responsible for the industrial growth of the township; it originally provided sewer service to some of Upper Gwynedd's industries when they were first established in the township. Other services and facilities located in the borough and available to the township include business and professional functions, commercial functions, a library and churches.

INTER-MUNICIPAL COOPERATION

As indicated in previous sections of this chapter, Upper Gwynedd is closely interrelated with the North Penn Area, Montgomery County and the Philadelphia Metropolitan Area. As development increases within the township, the degree of interdependency between Upper Gwynedd and these areas will also increase. For this reason, it is important that Upper Gwynedd and its neighbors cooperate in economic, social and physical development programs.

To date, Upper Gwynedd has participated in various inter-municipal programs. The chambers of commerce of Upper Gwynedd and North Wales have joined to form the Gwyn-Nor Chamber of Commerce. The township is a member of the North Penn Area Planning Council and is also part of the North Penn school jointure. In addition, it cooperates with the surrounding municipalities in police protection. The township also has cooperated in the area of sewage collection and treatment. Upper Gwynedd has used the North Wales Treatment Plant under an agreement negotiated between the two municipal authorities. It has also formed a joint sewer

authority with Towamencin Township for the purpose of solving the sewer problems that exist in the Towamencin Creek Drainage Basin, which serves the western portion of Upper Gwynedd Township. Although these are significant accomplishments, additional inter-municipal cooperation is desirable.

Other areas which are particularly appropriate for cooperative action include: parks and recreation, highway maintenance, promotion of industrial development, public health and the acquisition of professional personnel to provide community services.

CHAPTER III

NATURAL FEATURES

INTRODUCTION

The natural features of Upper Gwynedd are important factors in the development of this comprehensive plan. The physical features or conditions such as topography, natural drainage, soils and geology are important considerations in guiding the growth of the township. Upper Gwynedd's natural features should be considered when making decisions concerning the location of buildings, roads and utilities.

With more than half of the township land still undeveloped, failure to take into account the physical features will result in development which could be detrimental to the community. This chapter describes the natural features of Upper Gwynedd and the influences these features have on existing and future development.

DRAINAGE BASINS AND STREAM COURSES

Approximately two-thirds of Upper Gwynedd lies in the major drainage basin of the Wissahickon Creek. A portion of the western part of the township is located in the minor drainage basin of the Towamencin Creek. A small portion lies in the Zacharias Creek watershed (see figure iii-1).

Drainage basins are important to the formulation of a comprehensive plan because public sewerage systems are most efficient when gravity operated and, therefore, should follow the drainage pattern of the land. Trunk lines to a sewage treatment plant are usually located along the major stream of a basin, and feeder pipes branch out along minor tributaries. This type of sewerage system requires minimal pumping facilities.

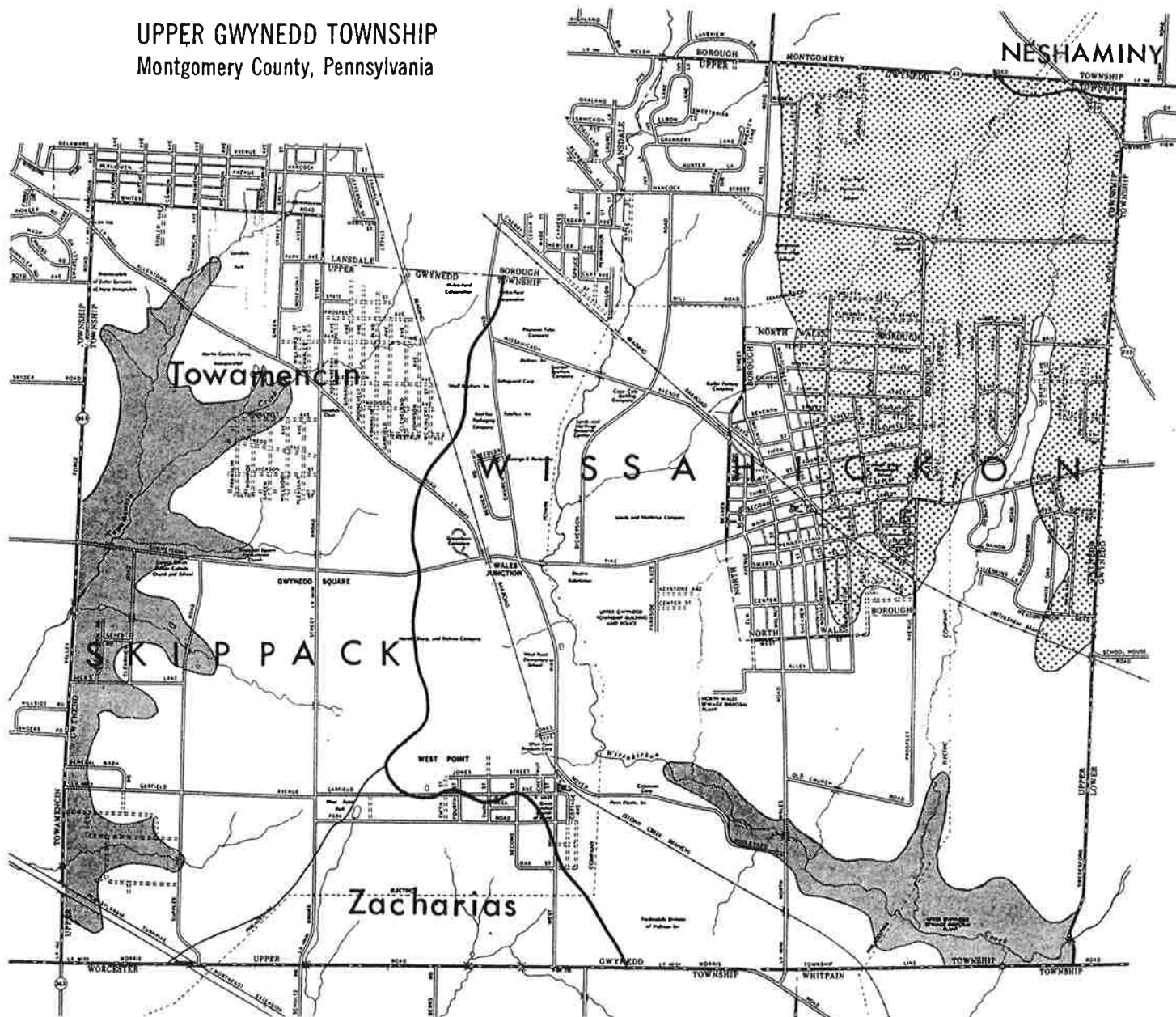
FLOODPLAINS

Areas subject to frequent flooding should not be developed and should be designated as open space. The floodplain areas form an integral part of the township's watershed and, as such, provide a natural storm drainage network which should not be destroyed by indiscriminate land development practices. These plains also serve to collect rain water to replenish the subsurface water supply. When floodplains are modified by the regrading of earth to create land for development, rain water is prevented from seeping underground. Instead, rain water rapidly runs off in wet seasons causing soil erosion on the slopes and flooding downstream from an overabundance of water. Conversely, when dry seasons occur, the tributaries tend to dry up more rapidly. Thus, little water is available for subsurface recharging and for the support of plant life during the dry seasons. The probability of flooding in the plain endangers the health and safety of the occupants of the structures built within it. Therefore, it is best from both the individual and community standpoint not to develop lands within a floodplain.¹ The open space is ideal for parks, woodland and recreational areas which enhance the aesthetic beauty of the community.

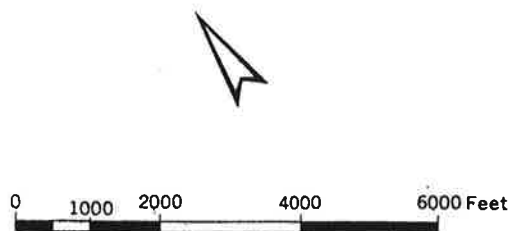
The problems involved with floodplain development are not always confined to the area of development. Overcoming problems on the development site can create problems upstream and downstream. The capacity of absorption of the watershed is lessened by construction of streets, parking lots, buildings and other changes associated with suburbanization, making flooding more likely.

The natural process of stream evolution is curbed by rechanneling and landfill operations. Construction on water absorption areas may cause wells to dry up and create a demand for public water before the need would normally arise. Development also causes destruction of vegetation and endangers the life cycle of the wildlife by disrupting the water supply.

UPPER GWYNEDD TOWNSHIP
Montgomery County, Pennsylvania

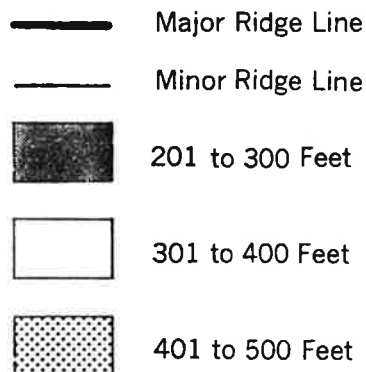


DRAINAGE BASINS AND TOPOGRAPHY



Prepared by the Montgomery County Planning Commission
Court House, Norristown, Pennsylvania 1967

The preparation of this map was financed in part through an Urban Planning Grant from the Department of Housing and Urban Development, under the provisions of Section 701 of the Housing Act of 1954, as amended, and as administered by the Bureau of Planning, Pennsylvania Department of Community Affairs



Source: Drainage Basins Compiled from U.S. Geological Survey 7½ Minute Quadrangles.

Figure iii-1

The adoption of a floodplain ordinance is an important factor in the preservation of stream valleys and surrounding woodlands and green areas. Upper Gwynedd adopted their floodplain ordinance on July 27, 1970.

The width of a floodplain is the result of the topography and the amount of water flow. The area of alluvial soil generally broadens in the downstream direction. Thus, stream valley preservation becomes more important downstream as the floodplain becomes larger (see figure iii-2).

The Wissahickon Valley Watershed Association is concerned with the need to preserve open space and control development in the valley. They have proposed a flood control dam within Upper Gwynedd Township (on a site of 200 acres) to serve townships downstream. Recreational facilities could be developed in this area. The Upper Gwynedd Township Planning Commission has proposed that all land along the Wissahickon Creek might be gradually acquired by an appropriate agency to preserve open space and provide recreation areas.

SLOPE

Topography and slope are important factors in land use planning. Slope, defined as the amount of increase or decrease in elevation over a horizontal distance, is expressed as a percentage. An eight-foot increase in elevation in 100 feet of horizontal distance is classified as an eight percent slope.

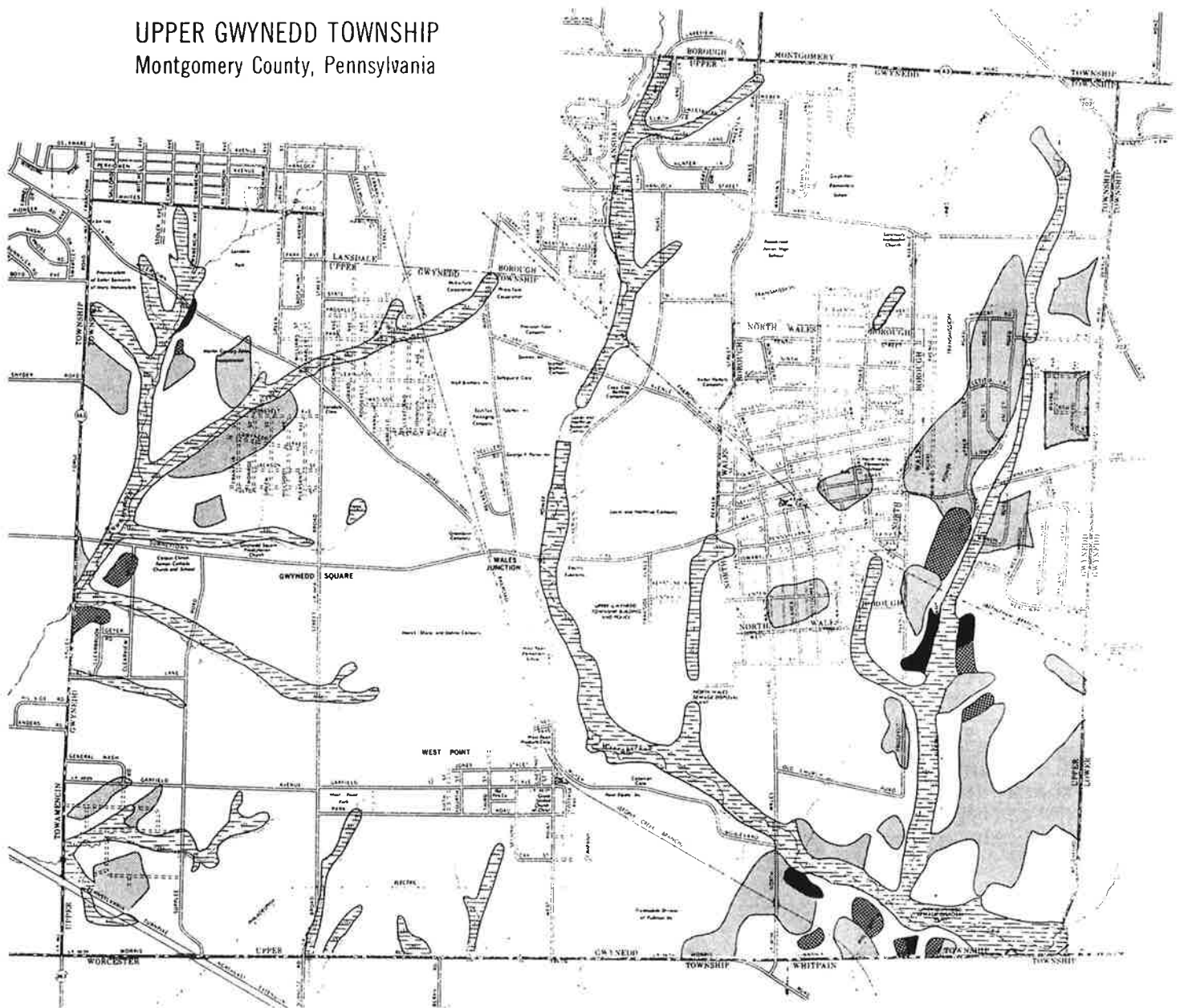
Land areas of less than 15 percent slope are generally most suitable for development. Care must be taken, however, in planning for areas of three percent slope or less. Two-thirds of Upper Gwynedd (from its western border of Valley Forge Road to North Wales Road) consists of flat land of an average slope of less than four percent. The grade of this flat land is not sufficient for the rapid run-off of surface water. This will cause storm drainage problems when development does occur. Land areas of gentle slope (four to eight percent) are suitable for all types of use. A four to eight percent slope is ideal for industrial plants and shopping centers. When this grade is used for residential construction, the sterility which occurs can be overcome by careful site design and the preservation of natural features. Moderate grades of 8 to 15 percent slope are attractive sites for residential development due to the variation provided by the topography. The eastern sector of the township (from North Wales Road to Swedesford Road) varies in slope from less than eight percent to greater than 12 percent. Where there are large land masses in the upper ranges of this classification (12 to 15 percent slope), special attention to site design must be made in order to take advantage of this type of topography. Land of greater than 15 percent slope should be restricted to low density residential use. The attractiveness of these areas gives them a high value and makes them a definite asset to Upper Gwynedd. However, their shallow soils increase the cost of construction of foundations, drainage and sewage facilities.

Elevations in Upper Gwynedd range from approximately 200 to 300 feet above sea level at the stream beds of the Towamencin Creek on the west and the Wissahickon Creek on the southeast, to 500 feet in the northeastern section of the township (see figure iii-1).

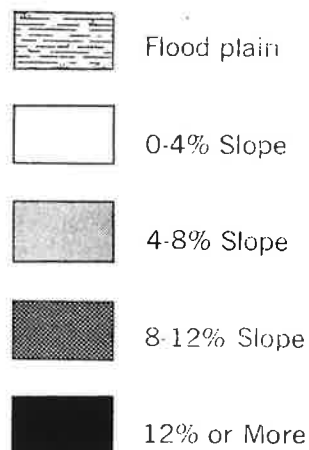
SOILS

Knowledge of soils and soil condition is of the utmost importance in the development of a growing area such as Upper Gwynedd. Probably the most important aspect concerning soils is their suitability for on-lot sewage disposal systems. The Montgomery County Planning Commission, with the assistance of the Soil Conservation Service of the United States Department of Agriculture, published a detailed soil survey of the entire county. The survey examined all characteristics of the soil including depth, slope, permeability and suitability for on-site sewage disposal.²

UPPER GWYNEDD TOWNSHIP Montgomery County, Pennsylvania



SLOPE AND FLOOD PLAINS



0 1000 2000 4000 6000 Feet

Prepared by the Montgomery County Planning Commission
Court House, Norristown, Pennsylvania 1967

The preparation of this map was financed in part through a grant from the Department of Housing and Urban Development under the provisions of Section 101 of the Housing Act of 1954 as amended and as administered by the Bureau of Planning, Pennsylvania Department of Community Affairs.

Source: Soil Survey by Soil Conservation Service,
U.S. Department of Agriculture, 1960-63.

Figure iii-2

The flat lands adjacent to the stream beds are composed of alluvial soils which consist of silt, loam, stratigraphic sands and clays deposited over the years by receding flood waters. The land area covered by alluvial soils is subject to periodic flooding because of its low relief. This creates problems when foundations or sewerage systems are constructed. Alluvial soil areas are not suitable for development.

In addition to locating floodplain lands, a soil survey also shows the characteristics of the soil in relation to its suitability for development. Figure iii-3 delineates the various soils of Upper Gwynedd Township and shows the capabilities of these soils for on-site sewage disposal.

To facilitate the examination of soil characteristics, a classification system has been formulated with three categories. The three categories, a brief description of each and their location in the township follows:

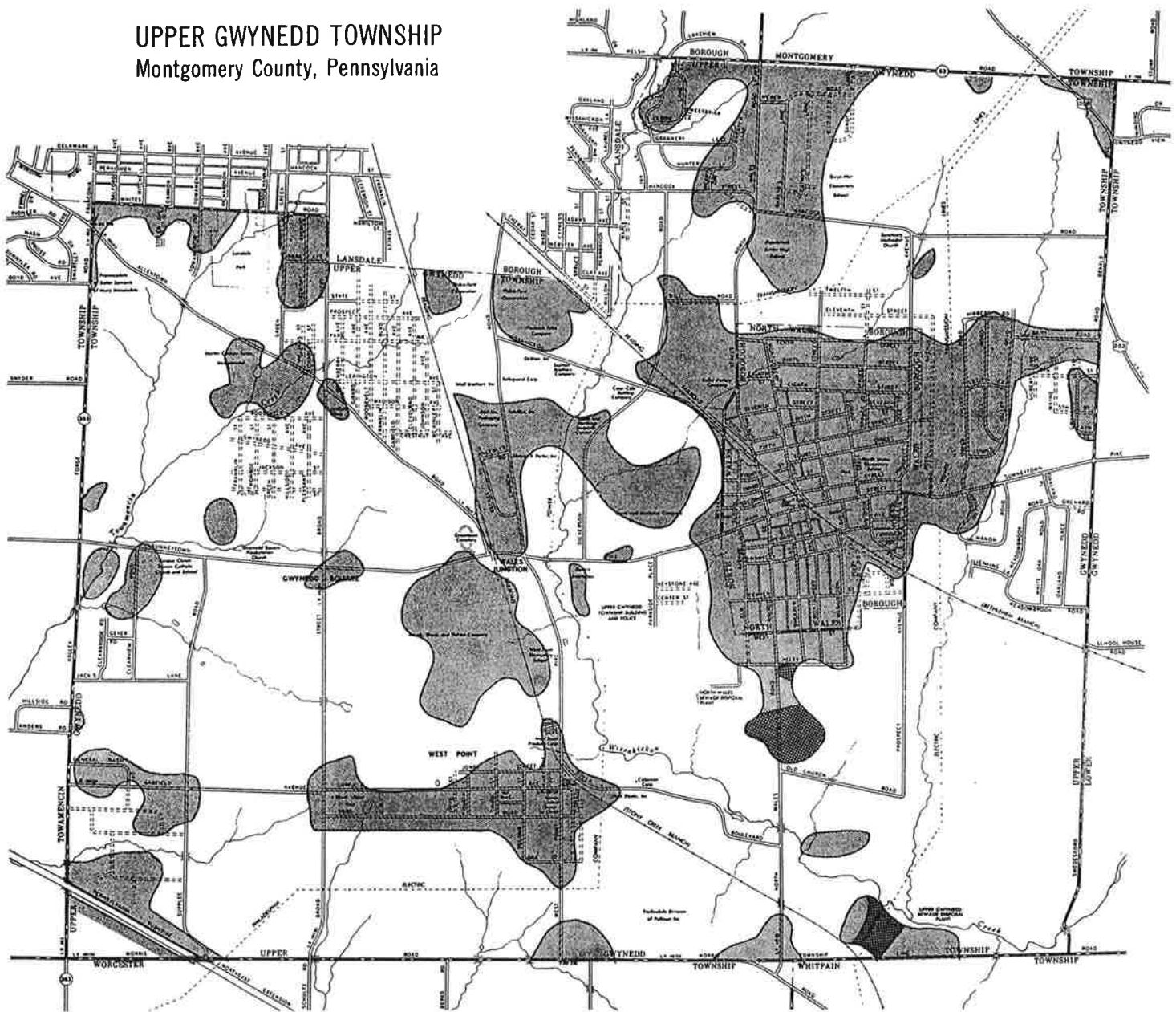
1. Desirable Land has the capacity to accept effluent from on-site sewage disposal systems for an indefinite period. A few isolated sites in the southeastern portion of Upper Gwynedd Township are in the desirable land category.
2. Variable Soils are suitable for on-site sewage disposal provided the existing subsoil is thick enough, the substrata permeable and the bedrock four feet below the surface. A few sites containing variable soil are scattered in the western section of the township and a single area within the southeastern section.
3. Less Desirable soils have been subclassified into: 1. seasonable high water tables, 2. alluvial soils and 3. permanent high water tables. Where seasonable high water tables exist, on-site sewage disposal systems may be expected to function poorly during those periods when the water table will interfere with the normal drainage of the soil. Depending upon local conditions, seasonable high water tables may last from several days to several months during a normal year.³ As indicated in figure iii-3, areas of less desirable category containing seasonal high water tables are found in various locations in the township. On-site sewerage systems are neither satisfactory nor reliable in alluvial soils or in soils of permanent high water tables found in most areas of Upper Gwynedd.

Further analysis of figure iii-3 shows the soil suitability of Upper Gwynedd for on-lot waste disposal to be poor in most areas of the township. There are only three small areas in Upper Gwynedd that fall under the category of slight limitation for on-site sewage disposal. Two of these sites are on North Wales Road just southwest of North Wales Borough. The third area is found on Morris Road just east of North Wales Road.

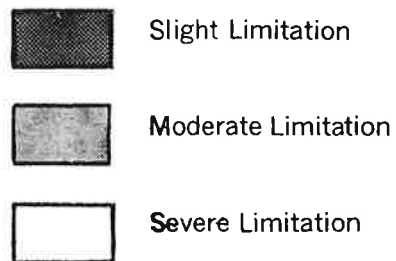
There are a number of areas which meet the next or moderate limitation category. The largest of these areas are found northeast of North Wales on North Wales Road, east of North Wales adjacent to the borough, south of Sumneytown Pike just west of North Wales and the area west of West Point to Broad Street. There are a number of smaller areas of soil in this category found generally in the western portion of the township between the Northeast Extension and Lansdale Borough. The remainder of the township is found to have severe limitations.

From this analysis it can be seen that on-lot sewage disposal systems can be used only temporarily at best in Upper Gwynedd. As soon as the density in any given area reaches the point of economic feasibility for installation of a public sewerage facility, the public facility should be constructed.

UPPER GWYNEDD TOWNSHIP Montgomery County, Pennsylvania



SOIL SUITABILITY FOR ON-SITE SEWAGE DISPOSAL



0 1000 2000 4000 6000 Feet

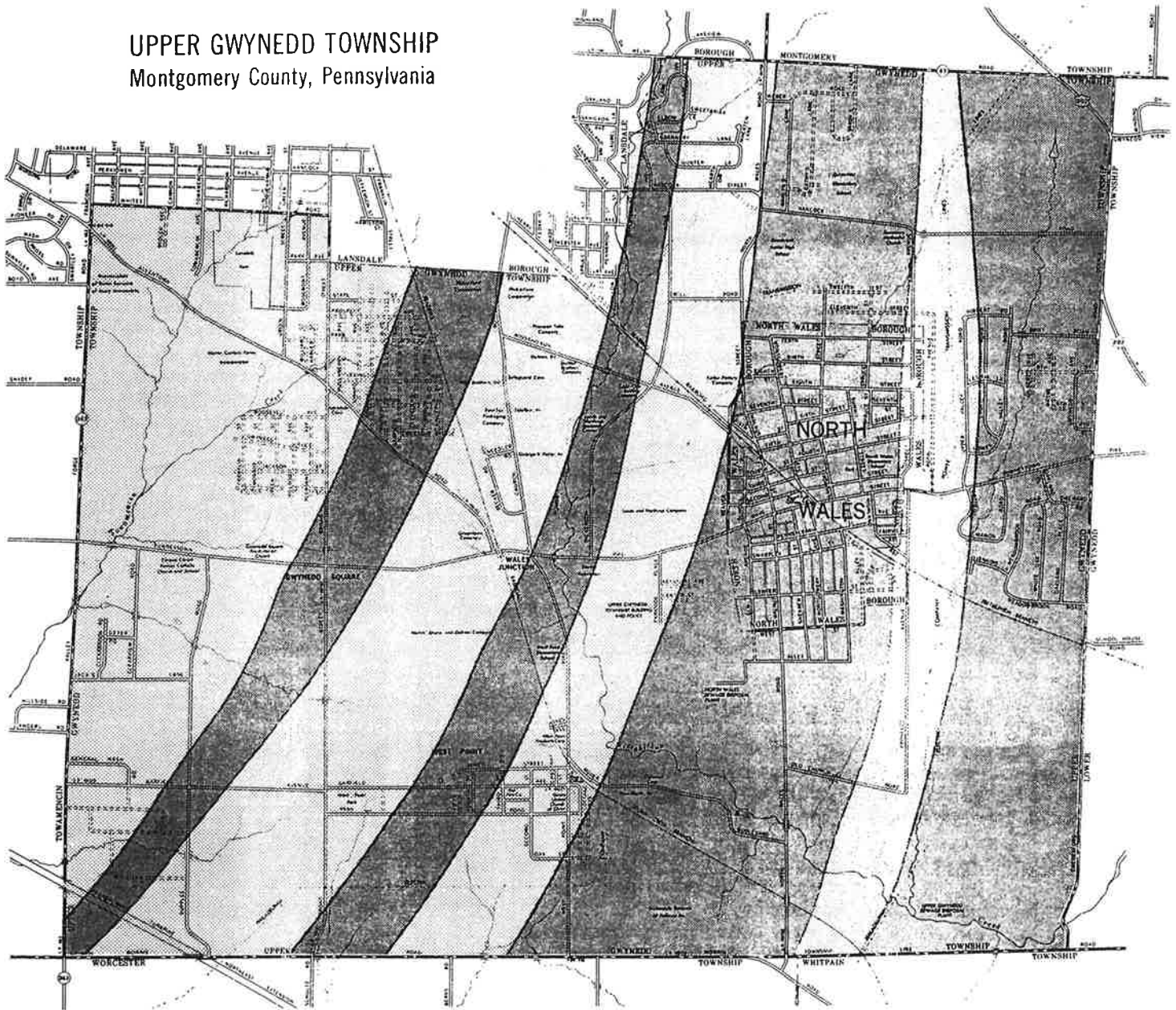
Prepared by the Montgomery County Planning Commission
Court House, Norristown, Pennsylvania 1967

The preparation of this map was financed in part through an Urban Planning Grant from the Department of Housing and Urban Development, under the provisions of Section 701 of the Housing Act of 1954, as amended, and as administered by the Bureau of Planning, Pennsylvania Department of Community Affairs

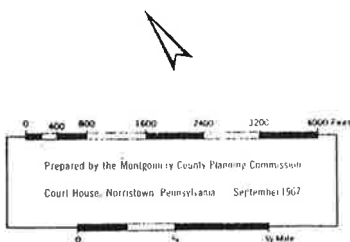
Source: Soil Survey of Montgomery County, Pennsylvania
and Pennsylvania Department of Health, 1967.

Figure iii-3

UPPER GWYNEDD TOWNSHIP Montgomery County, Pennsylvania



GEOLOGIC FORMATIONS



The preparation of this map was financed in part through an Urban Planning Grant from the Department of Housing and Urban Development, under the provisions of Section 701 of the Housing Act of 1954, as amended, and as administered by the Bureau of Planning, Pennsylvania Department of Community Affairs

Source: "Geological Map of Pennsylvania" by Topographic and Geologic Survey, 1962.

Figure iii-4

GEOLOGY AND GROUNDWATER

The geological formations of an area have much to do with the natural contours of the land and should be an important consideration in land planning and development. These formations determine the depth and productiveness of wells. This is important when considering the threat of pollution from on-site sewage disposal systems.

The two underlying geologic formations of Upper Gwynedd Township are the Brunswick and the Lockatong formations. These formations are composed of sedimentary rocks which were formed during the Triassic Period approximately 150 to 180 million years ago (see figure iii-4). About 50 percent of the geologic formation underlying Upper Gwynedd (primarily in the western section) is the Brunswick formation. This formation is made up of soft, red shales and sandstones which weather rapidly to minute fragments or split into thin shales.⁴ The soils formed from the weathering of this formation are generally good for agricultural uses. The Brunswick formation has proven to be a better aquifer than the Lockatong and is used for a public water supply.

The Lockatong formation is composed of and forms high ridge lines between the Brunswick and the Stockton formations. The Lockatong ranges in color from a dull red to black and is commonly called mudstone. The hardened clay intermingled with sand is sometimes interfingering with beds of impure limestone and carbonaceous shale. These argillitic sediments do not have any systematic grouping of fissures or cracks, and where cracking has occurred, the groundwater tends to fill up the cracks by redepositing the decomposed mudstone sediments.

Water wells in the Lockatong rarely yield as much as 50 gallons per minute, which is sufficient for a private household, but insufficient for public water supplies. Since wells are dependent upon local fissures for their supply of water, the number of wells in a given area can be an important determinant of supply. The local nature of the groundwater reserve demonstrates the importance of the area for recharge absorption as well as the importance of local precipitation. A localized drought could have serious consequences for wells in the Lockatong.⁵

Upper Gwynedd has public water available to the township through service by the North Wales and North Penn Water Authorities. Approximately 80 to 85 percent of Upper Gwynedd residents are served by the North Wales Water Authority. There are, however, numerous persons within the township who rely on their own wells.

Results of the North Penn resident questionnaire indicate a minimum of problems with present water facilities. Few people reported any contamination or running dry of private wells. Opinion concerning the need for public water in presently unserved areas is almost evenly divided. In general, with proper planning and supplementation by a surface water supply, availability of water has not, and will not, be a problem in Upper Gwynedd.

SEWERS

Approximately one-half of Upper Gwynedd is currently sewered. Most of the remaining township could be served by extending the existing sewer line. The part of Upper Gwynedd not currently sewered utilizes on-site septic tanks or cesspools. As indicated in figure iii-3, much of the soil in the township is unsuitable for on-site sewage disposal.

Almost one-half of the respondents to the residential questionnaire on the question regarding the backing up of on-lot systems reported that they have had problems. It is evident that the entire township is in need of sewerage facilities to alleviate the current problems involved with on-lot systems. Upper Gwynedd is planning to expand its sewage

treatment plant in the near future. It is important that the township become familiar with the county sewer plan and consider recommendations pertaining to Upper Gwynedd and nearby communities.

STORM DRAINAGE

Storm water problems are directly related to topography and poor absorption capability of the soil. Conservation methods and undeveloped floodplains are prime factors in reducing damage from storm water. Plans should be made for a storm drainage system parallel to the sewage system in areas where storm water presents a problem.

**UPPER GWYNEDD TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA**

ORDINANCE NO. 2004-_____

AN ORDINANCE AMENDING CHAPTER 195 OF THE CODE OF THE TOWNSHIP OF UPPER GWYNEDD (ALSO KNOWN AS ZONING CHAPTER 195), FOR THE PURPOSES OF ADDING A NEW DISTRICT TO BE ENTITLED RO RESIDENTIAL OFFICE DISTRICT AND AMENDING ARTICLE III, DISTRICTS; ZONING MAP; BOUNDARIES AND REPEALING ANY INCONSISTENT PROVISIONS THEREWITH

NOW, THEREFORE, BE IT ENACTED and ORDAINED and it is hereby **ENACTED and ORDAINED** by the Board of Commissioners of Upper Gwynedd Township as follows:

SECTION 1. A new article, Article VA, RO Residential Office District, shall be added to Chapter 195 of the Code of Upper Gwynedd (also known as the Zoning Chapter 195) to read as follows:

**Article VA
RO Residential Office District**

Section 195-21 RO Residential Office District

A. Intent.

In expansion of the statement of purposes contained in Article 1, Section 195-1, of this chapter, it is hereby declared to be the intent of this Article with respect to the RO Residential Office District to allow for restricted professional and business offices adjacent to and within residential areas which would be compatible with such residential uses. Specifically, it is the intent of this Article to:

- (1) Encourage small-scale professional and/or business offices in existing residential structures that are located on major roadways.
- (2) Encourage the use of noteworthy existing structures, now or lately used as residences, and discourage the demolition of such structures.
- (3) Discourage significant exterior alterations of noteworthy existing structures.

- (4) Encourage the preservation of the residential character of adjacent districts by prohibiting large buildings and encouraging buffers between neighboring properties.
- (5) Provide for services generally useful to and in harmony with residential neighborhoods.
- (6) Encourage the use of shared or common driveways and parking.

B. Permitted uses.

The following uses are permitted in the RO Residential Office District and no other:

- (1) Single-family detached dwellings and accessory uses in accordance with the R-2 Residential District.
- (2) Professional offices for doctors, dentists, chiropractors or any other practitioner of the healing arts for humans; lawyers, engineers, architects, urban planners, accountants, economic consultants and opticians, provided that such permitted uses are limited to the principal building.

Editor's Note: See Section 195-10.B.(1).(b) for uses that could be included or excluded.

C. Conditional uses. The following uses are permitted in the RO Residential District when authorized as conditional uses by the Board of Commissioners:

- (1) Office uses which are similar to those in Section 195-21.B.(2) above.
- (2) Demolition of existing buildings.
- (3) In addition to all regulations pertaining to permitted uses, conditional uses shall meet the following provisions:
 - (a) The proposed use will not attract larger volumes of traffic than the permitted use would.
 - (b) Anticipated noise and congestion created by the use will be compatible to the levels created by the permitted uses.

- (c) The proposed use shall provide architectural design compatible in design with a residential neighborhood including but not limited to: materials, window design and shape, and roof design - no flat roofs permitted.

D. General regulations.

For all authorized buildings and uses, the following regulations shall apply:

- (1) Minimum lot area. All lots in an RO Residential Office Zoning District shall have a minimum of twenty thousand (20,000) square feet.
- (2) Minimum lot width at the building line: One hundred (100) feet.
- (3) Front yard: Fifty (50) feet.
- (4) Side yard: Twenty (20) feet minimum per side, except where an RO Zoning District abuts a residential district, then the minimum side yard shall be increased to thirty-five (35) feet.
- (5) Rear yard: One hundred (100) feet.
- (6) Maximum height: Thirty-five (35) feet for a principal building but in no event greater than two (2) stories; fourteen (14) feet for an accessory building. Only one (1) accessory building is permitted per lot.

E. Development requirements.

- (1) A use must utilize an existing building for its purposes unless a conditional use approval has been granted by the Upper Gwynedd Township Board of Commissioners.
- (2) The maximum building coverage shall be fifteen percent (15%) of the total lot area.
- (3) The maximum total impervious coverage, including the building coverage, shall be forty percent (40%).
- (4) No single building shall exceed a total floor area of seven thousand five hundred (7,500) square feet.

- (5) Where a use, other than a residential use, in this District abuts a single-family residential use or District, the applicant shall install a landscaped screen buffer having a minimum of twenty-five (25) feet in width in accordance with Section 195-9.O of this Article.
- (6) Fencing along boundary lines adjacent to residential uses may also be required to further implement required screen buffers.

F. Lighting standards.

Lighting facilities shall be arranged in such a manner so as to protect the highway and neighboring properties, whether contiguous or not, from casting glare, direct light greater than one (1) foot candle measured at ground elevation, or hazardous interference of any kind; and shall not exceed a mounting height of sixteen (16) feet.

G. Signs.

Signs in the RO Residential Office District shall comply with the provisions established for the BP District in Article VII, Sign Regulations.

H. Parking and access driveways.

Parking and access driveways will meet the following minimum standards:

- (1) **Parking setback.** Parking spaces, areas and driveways serving the spaces shall be set back a minimum of fifty (50) feet from the rear property line and ten (10) feet from the side property line, except in the case of shared access driveways or common parking shared by one (1) or more abutting lots, in which case parking may abut or cross the property lines shared by the common users. No parking, either paved or unpaved, shall be permitted in the minimum front yard of an RO District.
- (2) When an access driveway is shared by two (2) or more lots, the following standards shall apply:
 - (a) The driveway may be located along or straddling the common boundary of the lots.

- (b) The driveway shall be a minimum width of sixteen (16) feet and shall have a minimum five (5) foot planting strip along both sides.
- (c) When a shared driveway is used:
 - [1] Access easements and maintenance agreements or other suitable legal mechanisms shall be provided which are acceptable to the Township Solicitor.
 - [2] Parking will provided in accordance with Article VI of this Chapter.
 - [3] Each lot will be permitted no more than two (2) curb cuts for vehicular access, with the balance of the frontage to a depth of five (5) feet from the ultimate right-of-way being maintained as a green buffer strip. However, such green buffer strip shall not interfere with vehicular sight distance.

I. Planting requirements.

Landscaping, including conservation of existing trees and woodlands, street trees, stormwater basin landscaping and site element screens, shall be provided in accordance with the provisions of the Township Subdivision and Land Development Ordinance.

SECTION 2. Article III, Districts; Zoning Map; Boundaries, Section 195-4, Classification of Districts, shall be amended to add the RO Residential Office District.

SECTION 3. Severability. In the event that any section, sentence, clause, phrase or word of this ordinance shall be declared illegal, invalid or unconstitutional by any Court of competent jurisdiction, such declaration shall not prevent, preclude or otherwise foreclose enforcement of any of the remaining portions of this ordinance.

SECTION 4. Repealer. All ordinances or parts of ordinances inconsistent herewith or in conflict with any of the specific terms enacted hereby, to the extent of said inconsistencies or conflicts, are hereby specifically repealed.

SECTION 5. This ordinance shall become effective immediately upon adoption.

ORDAINED and ENACTED by the Board of Commissioners of Upper Gwynedd

Township this _____ day of _____, 2004.

**BOARD OF THE COMMISSIONERS
UPPER GWYNEDD TOWNSHIP**

President

ATTEST:

Secretary

**UPPER GWYNEDD TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA**

ORDINANCE NO. 2004-_____

AN ORDINANCE AMENDING CHAPTER 195 OF THE CODE OF THE TOWNSHIP OF UPPER GWYNEDD (ALSO KNOWN AS ZONING CHAPTER 195), FOR THE PURPOSES OF REQUIRING A ZONING PERMIT FOR THE DEMOLITION OF ANY STRUCTURE AND ALLOWING DEMOLITION OF HISTORICAL STRUCTURES ONLY BY SPECIAL EXCEPTION AFTER REVIEW OF THE UPPER GWYNEDD TOWNSHIP BOARD OF COMMISSIONERS AND REPEALING ANY INCONSISTENT PROVISIONS THEREWITH

NOW, THEREFORE, BE IT ENACTED and ORDAINED and it is hereby **ENACTED and ORDAINED** by the Board of Commissioners of Upper Gwynedd Township as follows:

SECTION 1. Article IV, Regulations Applicable in All Districts, Section 195-9, General Standards shall be amended to add a new subsection W, Demolition of Historical Structures to read as follows:

W. Demolition of Historical Structures

No structure listed as an Historic Resource either in the Upper Gwynedd Township Open Space Plan dated 1995, as amended, or those resources located within the Village Preservation and Village Commercial Districts shall be demolished except upon grant of a special exception by the Zoning Hearing Board. The Zoning Hearing Board shall consider, in making its decision, the recommendation of the Township Board of Commissioners and the Township Planning Commission promptly upon receipt by the Zoning Officer. The Applicant shall demonstrate that there is no reasonable possibility of saving the structure. The Zoning Hearing Board may impose reasonable conditions upon the grant of the special exception.

SECTION 2. Article IX, Administration, Section 195-48, Permits required, Subsection A shall be amended to read as follows:

- A.** No structure shall be constructed, altered, added in any way, relocated or demolished nor the use of any land or structure commenced or changed, or industrial or public water supply wells drilled, nor any environmental resource disturbed, nor shall any unoccupied open areas of any lot be utilized, whether for patios, swimming pools, parking areas or other uses, until a zoning permit is secured from the Zoning Officer; except that no zoning permit shall be required for the erection of farm buildings to be placed more than one hundred fifty (150) feet from the legal right-of-way of any road, and no zoning permit shall be required for activities exempted by Act 133 of 1982 (Right to Farm).

Upon completion of the work authorized by any permit, the applicant for the permit shall notify the Zoning Officer of such completion. No permit shall be considered as complete or as permanently effective until the Zoning Officer has noted on the permit that the work has been inspected and approved as being in conformity with the provisions of this Ordinance.

SECTION 3. Article IX, Administration, Section 195-49, Applications shall be amended to add a new subsection A.(5) to read as follows:

- (5) All applications for permits to demolish a structure shall demonstrate compliance with all Federal, State, County and Township laws, regulations and ordinances, including Section 195-9.W of this ordinance.

SECTION 4. Repealer. All ordinances or parts of ordinances inconsistent herewith or in conflict with any of the specific terms enacted hereby, to the extent of said inconsistencies or conflicts, are hereby specifically repealed.

SECTION 5. Severability. In the event that any section, sentence, clause, phrase or word of this ordinance shall be declared illegal, invalid or unconstitutional by any Court of competent jurisdiction, such declaration shall not prevent, preclude or otherwise foreclose enforcement of any of the remaining portions of this ordinance.

SECTION 6. This ordinance shall become effective immediately upon adoption.

ORDAINED and ENACTED by the Board of Commissioners of Upper Gwynedd

Township this _____ day of _____, 2004.

BOARD OF THE COMMISSIONERS
UPPER GWYNEDD TOWNSHIP

President

ATTEST:

Secretary

Natural Stormwater Basins

The use of natural stormwater basins has numerous benefits:

- Slows run off down.
- Increases infiltration.
- Reduces the temperature of stormwaters.
- Improves quality and ecological value.

Increasing the biomass of a basin in lieu of mown grass permits vegetation to establish deeper root systems and results in a landscape which is more diverse and dynamic than a mown grass basin. In addition, there is a significant reduction in maintenance costs and fertilization programs of grasses are not required and thus there is a reduction of phosphorous and nitrates into the ground water.

Natural basins will not improve the volume nor reduce flooding but can improve the quality of stormwater and for typical rainfall events rain water can be easily absorbed into the ground water table rather than exit the basins through a concrete low flow channel.

Depending upon the maintenance program, it still may be necessary to clip or mow the basin once a year, but larger woody plants, shrubs and trees can be left alone and permitted to reach maturity.

Benefits of naturalized stormwater basin design are summarized in a handout *Improving Stormwater Basins, Naturally* financed in part by a Growing Greener grant provided by PA DEP. The following are excerpts from this handout:

"In what ways are naturalized basins better than traditional basins?"

- The deeper root systems of trees, shrubs and wildflowers encourage water infiltration and thereby recharge ground water tables and increase stream base flows.
- Plants increase water quality by trapping sediment and many pollutants found in runoff.

- The density of vegetation in a naturalized basin helps to slow the stormwater velocity, reduce flooding impacts and cool the water temperature.
- Wildflowers, trees and shrubs planted in basins create an improved visual appearance. They can help beautify a neighborhood and increase property values.
- Naturalized basins tend to have vegetation that requires only annual mowing. By decreasing maintenance costs your tax dollars can be diverted to more important township services.

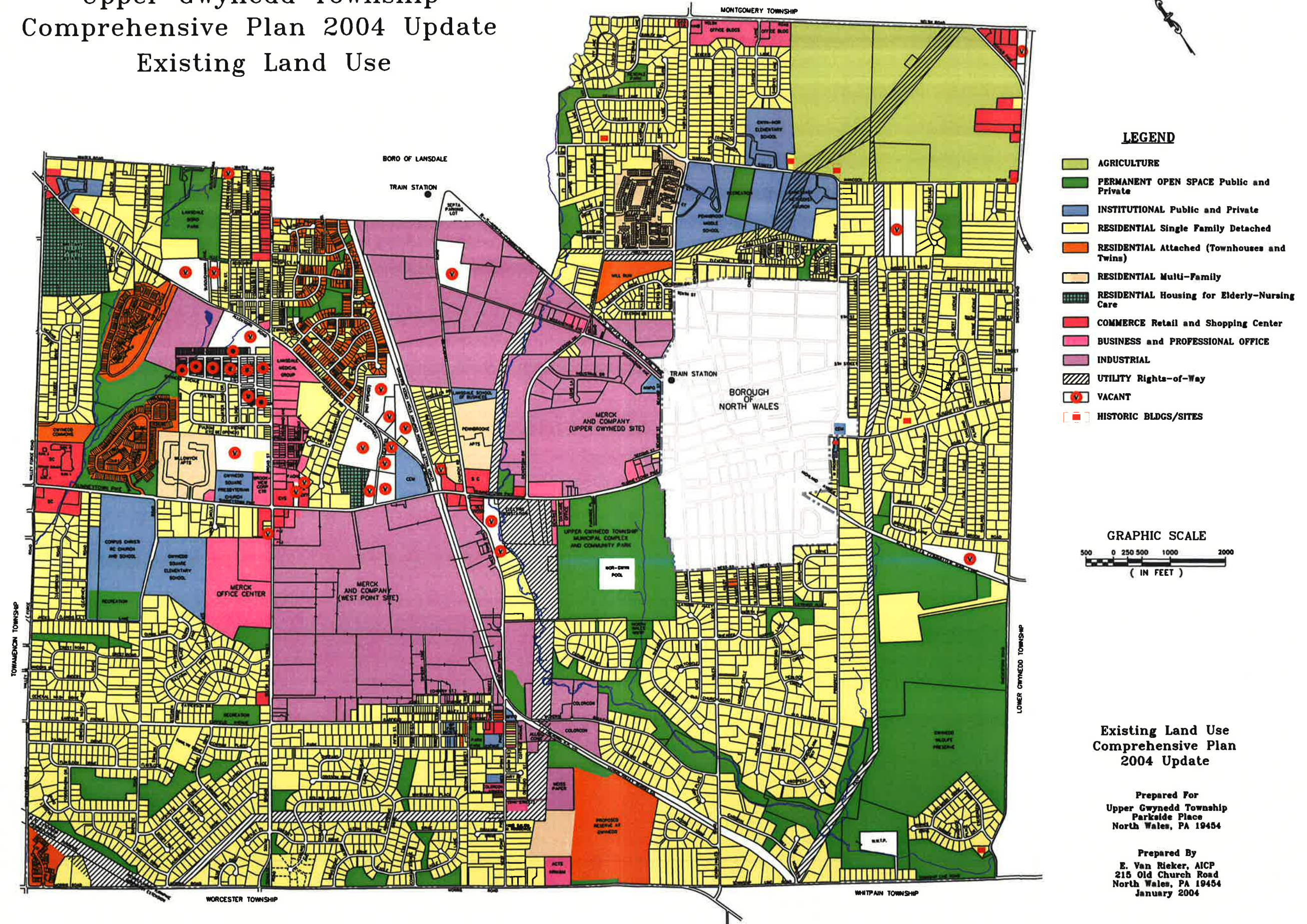
To overcome the shortcomings of traditional stormwater basin designs, municipalities should . . .

- Naturalize existing basins under municipal ownership.
- Revise ordinances to encourage naturalizing basin plantings in all new detention basins.
- Educate landowners that maintain private stormwater basins about naturalizing techniques.

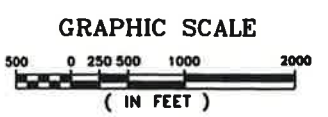
There are other methods to enhance existing stormwater basins; when combined with naturalizing techniques, they can further improve water quality.

- Removing concrete low flow channels helps to decrease water temperatures and allows for more infiltration.
- Retrofitting or altering outlet structures so that runoff from smaller storms is held in the basin longer allows for further settling of pollutants.
- Adding sediment forebays to basins improves water quality. These forebays collect debris and other pollutants and allow easier maintenance."

Upper Gwynedd Township Comprehensive Plan 2004 Update Existing Land Use



- LEGEND**
- AGRICULTURE
 - PERMANENT OPEN SPACE Public and Private
 - INSTITUTIONAL Public and Private
 - RESIDENTIAL Single Family Detached
 - RESIDENTIAL Attached (Townhouses and Twins)
 - RESIDENTIAL Multi-Family
 - RESIDENTIAL Housing for Elderly-Nursing Care
 - COMMERCE Retail and Shopping Center
 - BUSINESS and PROFESSIONAL OFFICE
 - INDUSTRIAL
 - UTILITY Rights-of-Way
 - VACANT
 - HISTORIC BLDGS/SITES

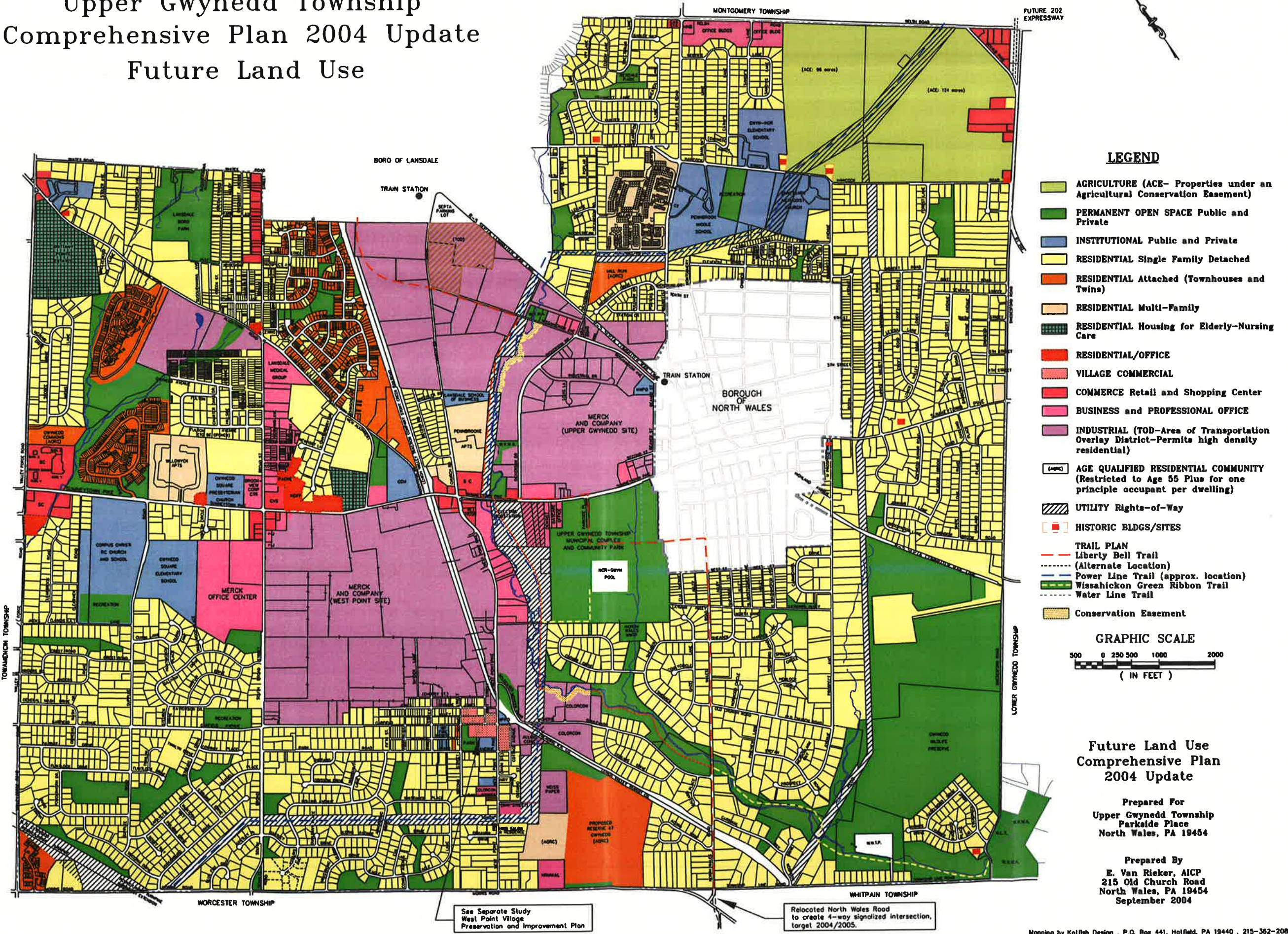


Existing Land Use
Comprehensive Plan
2004 Update

Prepared For
Upper Gwynedd Township
Parkside Place
North Wales, PA 19454

Prepared By
E. Van Rieker, AICP
215 Old Church Road
North Wales, PA 19454
January 2004

Upper Gwynedd Township Comprehensive Plan 2004 Update Future Land Use



Upper Gwynedd Township Comprehensive Plan 2004 Update 30 Year Development Plan

