



UWCHLAN TOWNSHIP

2020

Comprehensive Plan Update

Adopted:

Dowlin Forge

Before you see the ruins of the site of the forge, know that the forge was established by Mary Ann Doolin in 1795. A descendant of the steel industry, Doolin was one of the first women to establish an iron-making business in Pennsylvania. The iron forge was active for nearly one hundred years.

Water was diverted from the adjacent Sandwiche Creek into the raceway (still evident) to the water wheels at the side of the forge. Three fire furnaces and two big hammers powered by water pounded out the impurities in the pig iron. Further refining produced the bar iron needed to make such items as hoes, sickles, saw blades and horse shoe iron.

Mary Ann Doolin was the earliest industrialist in Uwchlan Township. In 1801, John Dowlin purchased the forge beginning three generations around the forge (including saw mill, grist mill, boarding houses, charcoal hearths, produce farm, school and country store) became known as Dowlin Forge.

SAMPLES OF PRODUCTS MADE AT THE FORGE

SAMPLES OF PRODUCTS MADE AT THE FORGE

**UWCHLAN TOWNSHIP
COMPREHENSIVE PLAN UPDATE**

ADOPTED: _____, 2020

This project has been funded in part through a Vision Partnership planning Grant administered by the Chester County Planning Commission.

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CHAPTER 1 INTRODUCTION & PAST PLANNING POLICY

This Plan updates the 2010 Comprehensive Plan. Over the past nine years the Township implemented many of the recommendations from 2010, which are outlined later in this chapter. With continued construction of new dwellings, parks, schools, shopping, and employment centers over the last nine years as well as significant development potential on heretofore undeveloped portions of the Township, Uwchlan has chosen to revisit its planning policies in an effort to guide well-planned growth and development.

This Plan Update will not deviate from the traditional comprehensive planning process of: collecting all elements that comprise the background chapters, formulating goals and objectives for each category of data collected, preparing plan sections highlighting the projected outlook for each category, and concluding with specific strategies for ease of implementation. The Plan Update identifies the changes since 2010, evaluates physical, social and economic resources that remain unchanged, identifies goals and objectives, establishes planning direction, and creates implementation strategies set forth within an action plan. The Plan Update is prepared as a guide to help the Board of Supervisors continue administering the land use planning program of the Township. The Plan Update is intended to be flexible and accommodate inevitable changes and allow appropriate responses to unforeseen events. By preparing this Plan Update, Uwchlan has acknowledged that a comprehensive plan is a dynamic and evolving tool that must be periodically reviewed and revised so that it may continue to guide the Township.

Planning statutes and policies exist that provide a framework for the Comprehensive Plan Update. The main statute is the State enabling legislation, the Pennsylvania Municipalities Planning Code (MPC), described below. Existing Township planning policies and ordinances are also evaluated for their relevancy to the Comprehensive Plan Update. The review of public planning policies at the county, regional, and municipal are included for their applicability to Township policy development.

ELEMENTS OF A COMPREHENSIVE PLAN

The following interrelated elements are included in a Comprehensive Plan, as required by the MPC, and are as follows:

A statement of objectives of the municipality, concerning its future development, including, but not limited to, the location, character and timing of future development;

A plan for land use, which may include provisions for the amount, intensity, character and timing of land use proposed for residence, industry, business, agriculture, major traffic and transit facilities, utilities, community facilities, public grounds, parks and recreation, preservation of prime agricultural lands, flood plains and other areas of special hazards and other similar uses;

A plan to meet the housing needs of present residents and of those individuals and families anticipated to reside in the municipality, which may include conservation of presently sound housing, rehabilitation of housing in declining neighborhoods and the accommodation of expected new housing in different dwelling types and at appropriate densities for households of all income levels;

A plan for movement of people and goods, which may include expressways, highways, local street systems, parking facilities, pedestrian and bikeway systems, public transit routes, terminals, airfields, port facilities, railroad facilities, and other similar facilities or uses;

A plan for community facilities and utilities, which may include public and private education, recreation, municipal buildings, fire and police stations, libraries, hospitals, water supply and distribution, sewerage and waste treatment, solid waste management, storm drainage, flood plain management, utility corridors and associated facilities, and other similar facilities or uses;

A statement of the interrelationships among the various plan components, which may include an estimate of the environmental, energy conservation, fiscal, economic development and social consequences on the municipality;

A discussion of short- and long-range plan implementation strategies, which may include implications for capital improvements programming, new or updated development regulations, and the identification of public funds potentially available;

A statement indicating the relationship of the existing and proposed development of the municipality to the existing and proposed development and plans in contiguous municipalities, or a statement indicating measures which have been taken to provide buffers or other transitional devices between disparate uses, and a statement indicating that the existing and proposed development of the municipality is generally consistent with the objectives and plans of the county comprehensive plan;

A plan for the protection of natural and historic resources to the extent not preempted by federal or state law, which includes, but is not limited to, wetlands and aquifer recharge zones, woodlands, steep slopes, prime agricultural land, flood plains, unique natural areas, and historic sites;

A plan for the reliable supply of water, considering current and future water resources availability, uses and limitations, including provisions adequate to protect water supply sources. Any such plan shall be generally consistent with the State water plan and any applicable water resources plan adopted by a river basin commission.

An energy conservation plan element to promote energy conservation and the effective utilization of renewable energy sources, the comprehensive plan may include an energy conservation plan element which systematically analyzes the impact of each other component and element of the comprehensive plan on the present and future use of energy in the municipality, details specific measures contained in the other plan elements designed to reduce energy consumption and proposes other measures that the municipality may take to reduce energy consumption and to promote the effective utilization of renewable energy sources.

The comprehensive plan shall be reviewed at least every ten years. The comprehensive plan shall be sent to the governing bodies of contiguous municipalities for review and comment and shall also be sent to the Center for Local Government Services for informational purposes. The comprehensive plan shall also be sent to the county planning commission.

The comprehensive plan may identify those areas where growth and development will occur so that a full range of public infrastructure services, including sewer, water, highways, police and fire protection, public schools, parks, open space and other services can be adequately planned and provided as needed to accommodate growth.

THE PLANNING PROCESS

There are four major steps involved in the process of producing this Comprehensive Plan Update: the inventory and analysis of existing conditions and trends; the establishment of goals and objectives; formulating specific plan elements by combining the findings of the inventory with the goals; and the implementation of the policies and proposals of the specific plan elements.

Inventory & Analysis

The initial step in any planning process is to review the variety of existing conditions. This inventory and analysis of existing conditions provides the information from which goals and the Plan Elements are based.

Establishing Goals

Identifying the planning direction desired by the Township and the formulation of the goals and objectives necessary to achieve such, is the essence of the Plan. While the inventory and analysis and plan elements can be achieved through professional planning assistance, establishing planning goals rely upon the Township itself to set the intended direction for the plan to be a useful document.

Plan Elements

Combining the planning implications gained from the inventory and analysis with the established goals and objectives facilitates the creation of the specific plan elements for land use, community facilities and services, parks, recreation and open space, traffic and circulation, housing, and natural and cultural resources.

Implementation

The final and essential step is to establish short and long-range strategies to implement the specific plan elements of the Plan in the form of an Action Plan. The overall implementation of the Plan involves a prescribed series of actions carried out by the various Townships boards and commissions through various documents over an established timeline.

PAST PLANNING POLICY

UWCHLAN TOWNSHIP

Comprehensive Plan of 2010

The Township Planning Commission completed its first Comprehensive Plan in December 1965, which was subsequently updated in 1970. The 1970 Update incorporated sections from the then newly enacted MPC (Act 247 of 1968). A complete revision to the Comprehensive Plan was prepared in 1999 and adopted in April 2000. An update of the 2000 Plan began in 2008 and was completed and adopted August-2010. The 2010 Plan Update involved the following tasks: evaluation of past planning policies; preparation of inventories and analyses; establishment of goals and objectives; formulation of plans for land use, community facilities/services, parks/recreation/open space, traffic/circulation, housing, natural/cultural resources; and set forth an action plan for the implementation of short-range, long range, and ongoing strategies.

As with the 2010 Plan, this Plan Update will continue the format of placing short-range and long-range objectives within each Plan Element that transition to the implementation portion of the Plan, which will contain attainable, prioritized goals, strategies, and sound policies to implement such. This similar format facilitates the transition from Plan to Plan by evaluating those items that were successfully implemented, determining which of those remaining items are still viable, as well as adding new items to be implemented.

The implementation measures of the plan elements of land use, community facilities/services, park/recreation/open space, traffic/circulation, housing, natural/historic resources, energy conservation, and sustainability will be easily transferable to ordinance language as previously done in 2010 Plan. In fact, this "menu" format facilitated the adoption of 17 of the 22 short-range ordinance recommendations and 3 of the 3 long-range ordinance recommendations of the 2010 Plan into the Township's revised Zoning and Subdivision/Land Development Ordinances; some of these items are listed below and later in this Chapter.

The following related ordinance was amended:

- Stormwater Management Ordinance with BMPs and other creative methods as part of MS4 program.

Other items of the 2010 Action Plan that were completed include:

Planning Coordination

- Prepared a 2010 Census addendum, incorporating applicable Township population and housing.
- Continued to work with Downingtown Area Regional Authority (DARA), Uwchlan Township Municipal Authority (UTMA), and AquaPA to insure that adequate sewer and water service is available to existing and future Township residents and businesses.

Traffic & Circulation Short-Range Projects

- Funded all engineering/inspection to facilitate the widening of PA Route 100 to 6 lanes from Welsh Pool Rd to Target in West Whiteland.

Traffic & Circulation Short-Range Projects

- Widened PA Route 113 at the intersection with PA Route 100 extending from Crossroads Boulevard to Crump Road/Eagleview Boulevard intersection.

Parks, Recreation & Open Space – Land, Facilities & Programs, Short-Range Projects

- Open Space on Rossi Property.
- Continued to work with Downingtown Area School District (DASD) and Lionville Youth Association (LYA) to coordinate the use and maintenance of their facilities in the Township and with Downingtown Area Recreation Consortium (DARC) in providing recreation programs.

Zoning Ordinance of 1994, as Amended

The Zoning Ordinance of 1994 was amended and codified in June 2009 along with the Subdivision and Land Development Ordinance. Most recently, the Zoning Ordinance was amended in November 2012 to incorporate recommendations of the 2010 Comprehensive Plan and maintain consistency with the Subdivision and Land Development Ordinance amendments.

Highlights of the 2012 amendment include the following:

- Community development objectives in Section 201 for the protection/preservation of historic resources, habitat areas, PNDI.
- New/revised definitions (48) in Section 301, including basement (per bldg. code), building, building area, building permit, Class 1, 2, 3 historic resources, clear cutting, common open space, cultural facilities, cultural studio, dbh, drip line, educational use, garage private, grade plane, guest house, hedgerow, historical commission, historic preservation overlay district, historic resources map and inventory, historic structure, homeowners' association, hospital, hydric soils, inn, kennel, lot area, MPC, natural condition, object, oldfield, open space management plan, parking space, PNDI, rare threatened endangered species, recreation active, recreation passive, steep slope, township, township authority, township engineer, township solicitor, tree protection zone, watercourse, waters of the commonwealth, wetlands, woodland, woodland disturbance, and zoning hearing board.
- Removed hospitals from the residential districts and added to the PIC & PCID Districts.
- Revised common open space standards and added the requirement of an open space management plan in the PCID District, and within multi-family developments, residential open space option, and planned single family development.
- New planned life care facility/standards as CU in PCID District.
- Off-street parking and loading requirements, including reduction of space and swm design in Section 602.
- Historic preservation standards in Section 612.
- Revised lighting standards in Section 615.
- New Section 617 for open space management standards.
- New Section 618 for steep slope standards.

The Zoning Ordinance is comprised of the following districts, which are listed below with their minimum lot areas and/or maximum densities and development options. Map 1-1 depicts the zoning districts.

- *R-A, Rural Agricultural District (1-2 acre & ROSO).*
- *R-R, Rural Residential District (1 acre-60, 000 square feet and ROSO).*
- *R-1, Low Density Residential District (30,000-60,000 square feet, ROSO, PSFD).*
- *R-2, Medium Density Residential District (20,000 square feet-12 DU/acre).*
- *PC, Planned Commercial District (1 acre).*
- *PC-2, Planned Commercial District (6 acres).*
- *PIC, Planned Industrial-Commercial District (5 acres).*
- *PCID, Planned Commercial Industrial District (2 acre minimum, 3 acre average).*
- *PI, Planned Industrial District (2 acres).*
- *PRD, Planned Residential Development (100 acres, repealed on 4-13-87).*
- *PSFD, Planned Single Family Development (20 acres).*

Subdivision & Land Development Ordinance of 1979, as Amended

The Subdivision and Land Development Ordinance of 1979, was amended and codified in June 2009 along with the Zoning Ordinance. Most recently, the Subdivision and Land Development Ordinance was amended in March 2013 to incorporate recommendations of the 2010 Comprehensive Plan and maintain consistency with the Zoning Ordinance amendments.

Highlights of the amendment include the following:

- New/revised definitions (22) in Section 204, including alley, building, building area, building permit, Class 1 & 2 historic resources, clear cutting, common open space, comprehensive plan, drip line, driveway, height of buildings, homeowners' association, hydric soils, kennel, license, lot area, oldfield, PNDI, sight distance, steep slope, tree protection, woodland.
- Revised the township review and escrow fees of Section 301.

- Revised the preliminary and final plan submission procedure in Sections 304 and 305 respectively.
- Revised Section 305 to allow for an extension of review time and permit a mediation option per the MPC.
- Revised the improvement and performance guarantees of Sections 306 & 307, respectively.
- New detail required for Sketch Plans in Section 401.
- Revised supplemental information for Preliminary and Final Plans in Sections 402 and 403 respectively.
- Revised street standards in Section 502, sidewalk construction in Section 503, and fire hydrants in Section 507.
- New open space requirements and fee in lieu option within Section 509.
- New Section 509 establishing tree protection and woodland management regulations.
- Revised curb construction, street signs, mailbox, and street tree standards in Section 602.
- Revised monuments and markers standards in Section 603.
- Revised existing street excavation standards in section 606.
- Revised the mobile home park standards in Sections 700-715.
- Revised the Appendices containing plan checklists, plan notes, plant lists, and construction details.

Open Space & Recreation Plan

Uwchlan Township adopted its original Open Space and Recreation Plan in 1992. The 1999 Update to the Open Space and Recreation Plan of 1992 provided guidelines for decision making by the Board of Supervisors and its commissions. The Plan presents recommendations for the improvement to existing parks, the improvement of existing recreation programs, and the possible development of land for additional recreational opportunities within the Township. The Plan concludes that the provision of an open space and recreation network comprised of both active and passive uses is a major element in the high quality of life, which Township residents expect and deserve.

The recreation inventories and plan elements of the 2000 and 2010 Comprehensive Plans updated the Open Space and Recreation Plans of 1992/1999 and served as policy guides for parks, recreation, and open space within the Township. Actions items from the 2010 Comprehensive Plan Update that have been implemented since its adoption are as follows:

Parks, Recreation & Open Space – Land, Facilities & Programs, Short-Range Projects

- Open Space on Rossi Property.
- Continued to work with DASD & LYA to coordinate the use and maintenance of their facilities in the Township and with DARC in providing recreation programs.

Parks, Recreation & Open Space – Walkways, Short-Range Projects. Completed the following segments, augmenting the existing 9 miles of trails/walkways in parks and 59 miles of sidewalks along Township streets

- Pedestrian/bike trail along the north side of Sheree Blvd from Eagleview Blvd across PA Route 100 to PA Route 113.
- Pedestrian/bike trail along the west side of PA Route 100 from Rutgers to Worthington Roads.
- Pedestrian/bike trail along the east side of PA Route 100 from Worthington to Ship Roads.
- Participated in the planning efforts for the East-West Bicycle & Facilities Trail with East and West Brandywine Townships and the Brandywine Greenway.

Act 537 Sewage Facilities Plan

The Act 537 Sewage Facilities Plan represents the sewage disposal policies of the Township. The last major stand-alone revision to the 537 Plan occurred in 2005 when the Township acquired additional capacity from the Downingtown Area Regional Authority (DARA). An amendment to the Act 537 Plan, begun in 2019, is currently underway. Previous Township policy has been the adoption of the County and/or DARA Plans in terms of capacity allocation for sewage treatment of various areas with specific revisions periodically for logical extensions coinciding to areas of Uwchlan planned for development. This Township policy has maintained consistency between the Act 537 Plan and the ongoing development of Uwchlan. Almost the entire Township utilizes public sewer, except the area north of the PA Turnpike and west of PA Route 113.

CHESTER COUNTY

Landscapes3– 2045 Comprehensive Plan Policy Element

Landscapes3, the Chester County Comprehensive Policy Plan, essentially divides the Township into four areas comprised of the following categories: two Growth Areas - Suburban Center located in the Lionville area, adjacent to the PA Turnpike, Route 100, and Route 113 and Suburban Landscape for most of the balance of the Township; one Rural Resource Area - Rural Landscape located along the western edge of the Township; and one Overlay Feature - Natural Landscape for areas along the East Branch of the Brandywine Creek and Shamona Creek and tributaries of the Pickering, Pine, and Valley Creeks. Both County and Municipal strategies for the land use categories include:

Growth Areas

The four landscape categories of the Growth Areas (Urban Centers, Suburban Centers, Suburban Landscape, and Rural Centers) can best accommodate future growth, are planned for a full range of infrastructure, and are highly suitable for redevelopment.

Suburban Landscape

Suburban landscapes are predominantly residential communities with locally-oriented commercial uses and community facilities. The Suburban landscapes will accommodate growth at a medium density that retains a focus on residential neighborhoods, with enhancements in housing types and affordability. Neighborhoods are inter-connected by roads, sidewalks, and paths with convenient access to parks and community facilities.

Suburban Center

Suburban Center landscapes are regional economic, population, and transportation centers with varying land uses. Suburban Centers will accommodate substantial future growth of medium to high intensity with a mix of uses, including commercial, residential, and industrial. As Suburban Centers grow, repurposing obsolete structures and sites and encouraging sustainable development will be critical. Transportation infrastructure and amenities will need to expand with new development to create an integrated multimodal network for a variety of users.

Rural Resource Areas

The two landscape categories of the Rural Resource Areas (Rural Landscape and Agricultural) are not appropriate for significant growth, strongly reflect the agricultural and rural character of the county, and serve as a focus for preservation efforts.

Rural Landscape

Rural landscapes consist of open and wooded lands, with scattered villages, farms, and residential uses. Very limited development occurs, preserving significant areas of open space and critical natural and cultural resources. Transportation infrastructure and amenities are context sensitive to the rural character and accommodate both residential and farm needs.

Overlay Features

The natural landscape, villages, and protection areas of national significance identify special natural and man-made features that exist throughout Chester County. These designations are considered “overlays” on the map. They do not replace the landscapes (urban, suburban, rural, and agriculture) and centers (suburban and rural), but add to the basic designations. The overlays serve as a foundation for building the Landscapes map and identify areas where special attention exists or where development activity requires additional precaution.

Natural Landscape

The county's natural landscapes consist of a network of streams, wetlands, floodplains, and forests. These environmental features overlay all other landscapes and are protected by regulations or should be subject to limited disturbance. Conservation practices protect and restore these natural resources.

Consistency & Alignment with Landscapes3

The Plan Update will continue the Township's policy of implementing sound municipal planning, and due to its location, many of Uwchlan's objectives are regional in nature, mirroring those highlighted within *Landscapes3*. Uwchlan continues to evolve as one of the major residential development nodes and major employment centers in the County, an overall goal in *Linking Landscapes*. The Township has experienced and will continue to provide for infill development within the Plan Update. As previously noted, the new County initiative of *Landscapes3* proposes no difference in the designation for Uwchlan as a Suburban Growth Area and Suburban Center.

Recommendations of *Landscapes3* that align with areas of focus in the Uwchlan Township Comprehensive Plan Update include:

Landscapes ³	
How We PRESERVE • How We PROTECT • How We APPRECIATE • How We LIVE • How We PROSPER • How We CONNECT	
Recommendation Overviews that could be applied on a	Township-wide basis
<ul style="list-style-type: none"> • Expand protection of natural habitats • Create additional recreation opportunities • Enhance protection of cultural resources • Expand the network of protected openspace • Encourage restoration and stewardship • Support open space policies and ordinances • Update historic resource inventories • Promote adaptive reuse and compatible development • Provide exemplary emergency services • Support emergency service responders • Enhance and expand recreational opportunities 	<ul style="list-style-type: none"> • Integrate education facilities with communities • Support flexible development • Retain and expand existing businesses • Advance implementation of transportation improvements • Advance multimodal transportation • Embrace smart transportation improvements for roadways • Promote bus service within growth areas • Enhance pipeline safety and communication • Support a resilient and clean energy network • Integrate water, sewer, and land use planning

REGIONAL

DVRPC Connections 2035, Long-Range Plan for Greater Philadelphia

The Delaware Valley Regional Planning Commission (DVRPC) Board adopted the *Connections 2045* update to Greater Philadelphia's long-range plan in October 2017. The Plan identifies Greater Philadelphia's vision for land use, the environment, economic development, equity, and transportation; develops strategies to achieve regional goals; contains a fiscally-constrained list of region transportation investments; and uses performance-based planning to ensure efficient use of resources.

Long-Range Plan

The Long-Range Plan creates a vision for the region's growth and development and as a blueprint for the prioritization and funding of capital transportation investments. Realizing the integrated and interconnected relationship between transportation and the built environment, the Long-Range Plan also considers regional land use, the environment, economic development, and equity activities and issues. The interactions between these areas are addressed in the five core principles of the Long-Range Plan: Sustain the Environment, Develop Livable Communities, Expand the Economy, Advance Equity and Foster Diversity, and Create an Integrated, Multimodal Transportation Network.

Regional Indicators

Regional indicators are a means to monitor and evaluate implementation of Long-Range Plan goals and determine if the recommendations are being accomplished. Over 30 indicators are tracked, grouped under the four core principles of the Long-Range Plan. The online *Tracking Progress* indicators are updated regularly.

Choices and Voices

Create a vision for Greater Philadelphia with the online visioning tool for growth and development between now and 2040.

Regionally Significant Projects

Connections 2045 contains an aspirational vision plan for investments the region would like to make in transportation infrastructure, and a fiscally constrained funded plan for what can be afforded given the reasonably anticipated revenue forecast. There are many transportation projects planned or ongoing within the DVRPC region. Most are included in the Transportation Improvement Program or the Long-Range Plan.

Uwchlan Township is represented within *Connections 2045* as follows:

- **Greenspace Network** along the Brandywine Creek.
- **Protected Open Space Inventory Map** depicts some of the areas preserved in the Township.
- **Circuit Trails Network Map** depicts the existing Struble trail and the east-west Township trail to a proposed connection to Exton Park in West Whiteland Township.
- **Corridor Studies Database** notes US 202, 322, 30, PA 100 as congested corridors with traffic congestion management system analyses.

- *The Major Regional Projects list contains Route 113 widening a \$7.3 million Roadway System Expansion Project, from Peck Road to US Route 30 slated as a long-term highway project (2029-2045); and all electronic tolling for the PA Turnpike as an External Roadway Project slated for 2018-2028.*

DVRPC conducts ongoing activities related to the development and implementation of the Long-Range Plan. Continuous public and regional stakeholder outreach is an important component to DVRPC's Long-Range Plan.

Multi-Municipal Planning Efforts

Downingtown Area Regional Planning Group

Uwchlan is an ongoing member of the Downingtown Area Regional Planning Group (DARPG) that formed in 1999 to examine land issues and opportunities in the seven-municipality region. In addition to Uwchlan, DARPG includes the municipalities that comprise the Downingtown Area School District; Downingtown Borough and East Brandywine, East Caln, Upper Uwchlan, Wallace, West Bradford, and West Pikeland Townships. The initial role of the DARPG was to examine how the legal obligations for a fair share of land uses might be jointly addressed by the municipalities. Preliminary attention was also given to the concept of trails as a regional recreation asset. The DARPG remains intact as a planning entity in the event future projects are identified. Uwchlan representatives maintain informal, but regular contact with neighboring municipalities, particularly the four that abut the Township. The largely reciprocal relationship has, for the most part, successfully avoided any unintended land use conflicts stemmed from planning decisions on either side of the municipal boundaries.

Adjacent Municipalities Involvement

Uwchlan has been participating in the East-West Bicycle & Pedestrian Facilities Plan with East and West Brandywine Townships begun in 2017. The Plan involves the evaluation of segment alignments, selection summaries, and an action/phasing plan. Applicable data, recommendations and/or implementation strategies of the Bicycle & Pedestrian Facilities Plan will be included in both the Inventory & Plan Elements of this Plan Update.

Uwchlan was a founding member of and continues to participate in DARC and DARA (previously mentioned), and provided a major role in the Brandywine Greenway. Uwchlan also participated with West Whiteland Township on the aforementioned PA Route 100 widening project that created extra lanes/shoulders from Welsh Pool Road to Swedesford Road.

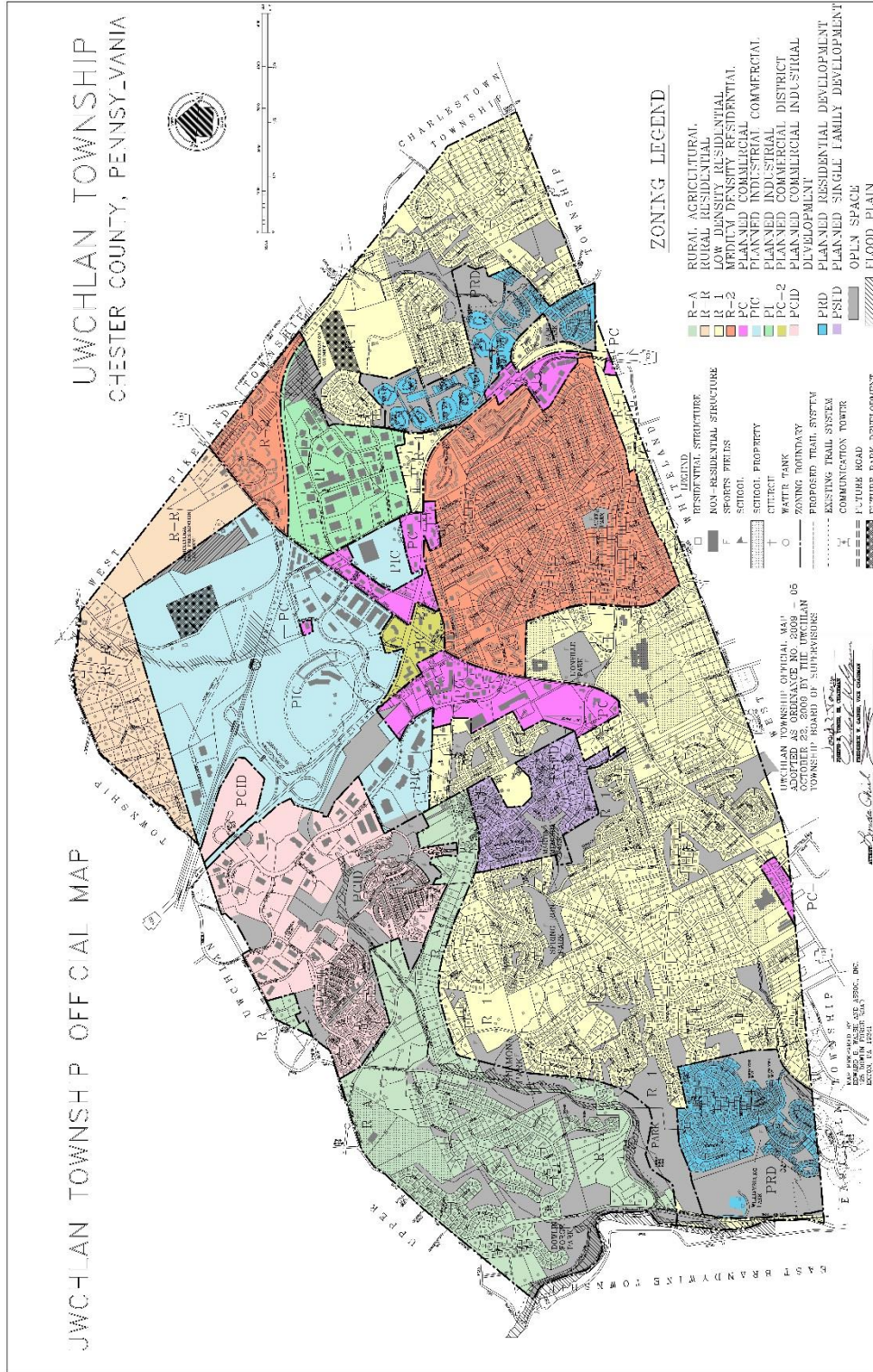
USING THE PLAN

The Plan Update is organized to facilitate its ease of use and interpretation. As discussed earlier, the Plan Update begins with inventories and analyses of the conditions that influenced the current pattern of development within the Township. A statement of Uwchlan's goals and objectives bridges the inventory and analysis with the plan elements. The Plan Update concludes with specific plan elements and short-range, long-range, and ongoing implementation strategies within an Action Plan for the Township's future land use, community facilities and services, open space, parks and recreation, traffic and circulation, housing, natural and historic resources, and energy conservation.

The Plan Update includes a number of maps that are basic planning tools for the Township. These maps contain information with which the Township can not only develop and implement its goals, but can also be used on a continual, day-to-day basis by the Township Supervisors, Planning Commission, private citizens, builders, business owners, service providers, and others. Township officials and other government agencies as well as prospective residents and businesses may use the Comprehensive Plan Update as a reference resource since it contains a compilation of background information such as population data and transportation inventories as well as future projections.

After adoption as it has in the past, the Plan Update will serve as a guide enabling the Board of Supervisors, Planning Commission, and Township Staff to review current issues and proposals against the recommended direction of the Plan for the future development and character of Uwchlan Township. Overall, the Plan Update is a continuous series of recommended individual actions, which must be reviewed and monitored by the Township and action initiated when feasible and timely. The success of Plan implementation requires the coordinated efforts of the Supervisors, Staff, and Commissions and the cooperation of Township landowners. In addition to implementing those 2010 items not yet completed, the Plan Update will focus on implementing items that have changed and those imminent impactful land uses such as the Downingtown Area School District property and the pipeline.

Map 1-1 Existing Zoning



Map 1-1 Existing Zoning (back)

CHAPTER 2

INVENTORY & ANALYSIS

For consistency between documents, this Inventory & Analysis Chapter contains both a summary of data previously collected and new information since the 2010 Plan Update regarding the following areas of planning emphasis: population, housing and employment; existing development and land use pattern; transportation and traffic conditions; open space, parks, and recreation; community facilities and services; regional relationships; and environmental, cultural and historic resources. Understanding the implications of the data collected within each category of this Inventory & Analysis provides the foundation for setting the goals and planning policy of this Comprehensive Plan Update.

POPULATION, HOUSING & EMPLOYMENT

The population of Uwchlan continues to increase, albeit at a slower rate than previous decades and the particular characteristics of the population are also changing. The character of the population, its housing, and employment are documented and reflected in the Township Comprehensive Plan Update. This segment of the Inventory & Analysis includes historical data, current information, and population estimates/forecasts. The data collected will be used in forming and evaluating strategies to implement the goals and objectives of the Township and may be used to allocate more efficiently the resources identified elsewhere in this Chapter as the case arises. Additionally, this information can be used to continue providing objective support for land use goals, and ensure that policies are rationally related to needs.

POPULATION CHARACTERISTICS

The 2010 Census only collected and reported the following data: sex, age, race, family and nonfamily households, average household size and family size, housing occupancy including homeowner and rental vacancy rates and owner/renter occupied housing units. As such, the data within several tables of the 2010 Comprehensive Plan (which reflected the 2000 Census data) cannot be updated with actual counts. The 2010 Census is data shown within the following tables that correspond to the same or similar data from 2000 depicted in Chapter 2 of the Comprehensive Plan. In most instances comparison with the 2000 and 2010 Census figures is shown. As an interim census gauge, estimates prepared by the U.S. Census Bureau for a 5-year period (2013-17), within its American Community Survey, are used to supplement the 2000 and 2010 numbers for selected social, housing and economic characteristics, which may or may not have been published by the 2010 Census.

POPULATION CHARACTERISTICS

The Township population was 16,576 in 2000 and 18,088 in 2010. The population of the Downingtown Area School District (DASD) increased from 56,960 in 2000 to 68,491 in 2010. Chester County population increased from 433,501 to 498,886 over the same decade, while the Pennsylvania population increased from 12,281,054 to 12,702,379. Population increases exert a significant impact upon land use, traffic, and municipal facilities and services. Table 2-1 shows the population changes for Uwchlan, DASD, Chester County, and Pennsylvania from 1950 to 2010.

The increase of 1,512 persons in Uwchlan was the lowest numeric change for a decade since 1950-60 and lowest percentage increase also since 1950. The 9.1% increase was the first time since 1950-1960 that Uwchlan was less than the County increase (15.1%). The continued increase of DASD doubled Uwchlan for 2000-2010 (20.2%), a change from the previous two decades in which Uwchlan exceeded the DASD by an average of 14% per decade. Significant population increases in neighboring Upper Uwchlan and East Caln Townships, 64% and 69% respectively, account for the DASD increase. The population increase for the County and State remained constant with 15.1 or 15.2% and 3.4% increase respectively for 1990- 2000 and 2000-2010.

TABLE 2-1
POPULATION & GROWTH COMPARISONS 1950 TO 2010

Year	Uwchlan Population	Uwchlan Township Population Percent Change	DASD Population Percent Change	Chester County Population Percent Change	Pennsylvania Population Percent Change
1950	761	-	-	-	-
1960	995	30.7	24.2	32.3	-
1970	5,475	450.3	77.3	31.9	4.3
1980	8,364	52.8	46.8	14.0	0.5
1990	12,999	55.4	36.0	18.9	0.1
2000	16,576	27.5	18.8	15.2	3.4
2010	18,088	9.1	20.2	15.1	3.4

Source: U.S. Census Bureau, 2010, 2000, 1990, 1980, 1970, 1960 & 1950.

In July 2016 the U.S. Census Bureau through the Delaware Valley Regional Planning Commission and Chester County Planning Commission (CCPC) released a 2015 estimate for the Township population as 19,072, which results in a density of just under 2.9 persons per acre. DVRPC also prepared population forecasts in 2016 for the Township listed in Table 2-2. The rate of growth in the Township is expected to decrease slightly or remain similar to 2000-2010. The DVRPC forecasts of 19,763 by 2020, 21,149 by 2030, and 22,251 by 2040 show an increase over the next three decades of 9.3%, 7.0% and 5.2%. Development activity within Uwchlan has slowed over the past 10 year, therefore a confirmation of the DVRPC forecasts are needed. Building permits and ultimately residential occupancy permits issued from 2010 to 2019 of 267 dwellings (48 single family and 217 apartments) at a conservative 2.50 persons/dwelling is added, which yields 668 persons, or a preliminary population of 18,756 in 2019. A corresponding tally of the natural increase (births minus deaths) in Chester County (Uwchlan had a similar rate) was produced by the PA State Health Department for 2019, that depicts slight decreases each year for an annual average of 1.19 persons/1,000 persons. Therefore, applying the natural increase of 1.19 persons/1,000 to the 2010 population and projecting it to 2020, yields 216 people ($10 \times 1.19 = 11.9 \times 18,088 = 216$), which added to the 18,756 calculated above, results in 18,972. Table 4-1, Developable Land-Build-out Scenario, of the 2010 Plan for Land Use, reports 1,293 persons as the potential maximum in-migration permitted by current zoning and properties under development. Not all remaining residentially zoned parcels in the Township will be developed during one decade, but splitting the 1,293 into 50% (646) for each subsequent decade, 2030 and 2040, accounts for reasonable estimates without any rezoning. The 2030 and 2040 estimates of 19,618 ($18,972 + 646$) and 20,264 ($19,618 + 646$) are further modified by a corresponding natural increase: 19,852 ($19,618 + 234$) ($10 \times 1.19 = 11.9 \times 19,618 = 234$) for the 2030 population, a 4.6% increase; and 20,501 ($20,264 + 237$) ($10 \times 1.19 = 11.9 \times 19,852 = 237$) for the 2040 population, a 3.3% increase. Although 6.7-.8.6% greater than the above calculation, the DVRPC forecasts reflect a similar reduced rate of development. Even this rate of growth may be high given the limited amount of undeveloped residential land remaining in the Township, however any zoning change to increase density or nonresidential land rezoned to residential would significantly alter the projected rate. This will be discussed in more detail in Chapter 4.

Table 2-3 provides the recorded Township population and percentage of each age group for 2010 and 2017 ACS estimate as well as the percentages of each age group for the DASD, Chester County, and Pennsylvania. Changes between 2010 and 2017 and comparisons of the percentages within specific age groups between DASD, Chester County, and Pennsylvania follow. Overall, the population of Uwchlan was slightly younger as the median age in 2010 was 39.5 compared to 38.6 in 2017. While this was a slight decrease for Uwchlan, the numbers reflected an overall aging of the population between 2010-2017 for the DASD (39.4 to 40.8), County (39.3 to 40.3), and State (40.1 to 40.7). In Uwchlan, the under 5 age group increased slightly during 2010-2017 (6.3% to 6.7%), while the 5-9, 10-14 & 15-19, age groups each decreased slightly to significantly (8.2% to 6.5%, 8.0% to 8.4% & 7.0% to 6.7% respectively). The 20-24, 25-34, 55-64, 65-74, 75-84 & 85+ age groups all increased markedly (3.8% to 5.8%, 10.6% to 11.8%, 13.3% to 14.3%, 5.1% to 6.7%, 2.8% to 3.6% & 0.9% to 1.8% respectively), while the 35-44 and 45-54 age groups exhibited a considerable decrease (15.5% to 12.5% & 18.2% to 15.8% respectively).

TABLE 2-2
POPULATION FORECASTS 2020 TO 2045

Year	Uwchlan Township			DASD			Chester County		
	Population	Number	Percent	Population	Number	Percent	Population	Number	Percent
U.S. Census Number									
2010	18,088			68,491			498,886		
DVRPC Estimate									
2015	19,072	984	5.4	72,293	3,802	5.6	515,939	17,053	3.4
DVRPC Forecast									
2020	19,763	691	3.6	76,395	4,102	5.7	543,702	27,763	5.4
2025	20,451	688	3.5	80,477	4,082	5.3	571,641	27,936	5.1
2030	21,149	698	3.4	84,620	4,143	5.1	599,932	28,291	4.9
2035	21,754	605	2.9	88,223	3,603	4.3	624,832	24,900	4.2
2040	22,251	497	2.3	91,160	2,937	3.3	645,562	20,730	3.3
2045	22,672	421	1.9	93,660	2,500	2.7	662,283	16,721	2.6

Source: DVRPC, July 2016

Further review of Table 2-3 reveals the 2017 Township under-5 age group was higher than the DASD, County, and State. The Township's school age groups (5-9, 10-14 & 15-19) were slightly lower than DASD but generally higher than the County and State. The young adult age groups (20-24 & 25-34) were slightly higher in Uwchlan than DASD, but lower than the County and State. The 35-44 & 45-54 age groups of DASD were higher than Uwchlan, but these Township age groups were higher than the County and State. The Township 55-64 age group was higher than DASD, County and State. The Townships' elderly age groups (65-74, 75-84 & 85+) were slightly higher than DASD, but generally lower than the County and State.

TABLE 2-3
POPULATION BY AGE GROUP, 2010 to 2017 Comparison

Age	Uwchlan Township				DASD		Chester County		Pennsylvania	
	Number		Percent		Percent		Percent		Percent	
	2010	2017	2010	2017	2010	2017	2010	2017	2010	2017
Under 5	1,132	1,232	6.3	6.6	6.7	5.5	6.2	5.6	5.7	5.6
5-9	1,486	1,222	8.2	6.5	8.0	6.7	7.0	6.3	5.9	5.8
10-14	1,509	1,495	8.3	8.0	8.4	8.3	7.2	7.1	6.2	6.0
15-19	1,262	1,251	7.0	6.7	7.1	7.7	7.3	7.2	7.1	6.5
20-24	694	1,095	3.8	5.8	4.0	4.3	6.1	6.2	6.9	6.7
25-34	1,914	2,205	10.6	11.8	10.0	9.4	10.9	11.3	11.9	12.9
35-44	2,801	2,335	15.5	12.5	15.2	14.8	13.9	12.4	13.7	11.8
45-54	3,296	2,950	18.2	15.8	18.3	16.9	16.3	15.1	15.3	13.9
55-64	2,399	2,690	13.3	14.3	12.6	8.0	12.3	13.8	12.8	13.9
65-74	922	1,267	5.1	6.7	5.7	5.7	6.8	6.3	7.8	9.3
75-84	510	676	2.8	3.6	2.9	3.2	4.2	4.2	5.4	5.1
85+	163	345	0.9	1.8	1.3	1.7	1.9	2.1	2.4	2.5
	Actual Number				Actual Number		Actual Number		Actual Number	
Median Age	39.5	38.6			39.4	40.8	39.3	40.3	40.1	40.7

Source: U.S. Census Bureau, 2010, Table DP-1, Profile of General Population and Housing Characteristics.

Source: U.S. Census Bureau, American Community Survey, 2013-17, Table DP03, Demographic and Housing Characteristics.

Table 2-4 provides numeric and percentage data for gender and race characteristics of the Township as well as the percentages of each for the DASD, County, and State. Uwchlan, unlike the DASD, County, and State, had a larger percent of males than females. In terms of racial composition, except for those of Hispanic origin, all others increased slightly in Uwchlan between 2010-2017 (1.2% to 2.3% and 3.2% to 5.2% respectively). Table 2-4 also illustrates that with respect to the racial characteristics in 2017, the percentage of white population of Uwchlan was 3-7% greater than that of the DASD, County, and

State and the percentage of black population was greater than DASD but less than the County and State. The Asian population of Uwchlan was 2.1-4.3% greater than that of the County or State, but 1.1% less than the DASD.

TABLE 2-4
GENDER & RACE CHARACTERISTICS, 2010 to 2017 Comparison

	Uwchlan Township				DASD		Chester County		Pennsylvania	
	Number		Percent		Percent		Percent		Percent	
	2010	2017	2010	2017	2010	2017	2010	2017	2010	2017
Sex										
Male	8,895	9,402	49.2	50.1	49.7	50.0	49.1	49.1	48.7	48.9
Female	9,193	9,355	50.8	49.9	50.3	50.0	50.9	50.9	51.3	51.1
Race										
White	16,348	16,653	90.4	88.8	87.8	85.8	85.5	85.8	81.9	81.9
Black	445	825	2.5	4.4	3.8	3.2	6.1	5.9	10.8	10.8
American Indian, Etc.	0	36	0.0	0.2	0.1	0.3	0.2	0.1	0.2	0.2
Asian, Etc.	943	1,308	5.2	7.0	6.0	8.1	3.9	4.9	2.7	2.7
Pacific Islander	1	15	-	0.1	0.0	0.1	-	-	-	-
Other Race	93	215	0.5	1.1	0.7	0.7	2.4	1.2	2.4	2.4
Two & More Race	247	247	1.4	1.3	1.6	1.9	1.8	2.1	1.9	1.9
Hispanic Origin	411	229	2.3	2.3	2.8	4.2	6.5	7.2	5.7	5.7

Source: U.S. Census Bureau, 2010, Table DP-1, Profile of General Population and Housing Characteristics.

Source: U.S. Census Bureau, American Community Survey, 2013-17, Table DP03, Demographic and Housing Characteristics.

Table 2-5 lists household information. The Township had the same slight decrease in household size and family size between 2000 and 2010 (2.80 vs 2.74 and 3.24 vs 3.18 respectively). Uwchlan had a similar family size (3.18) as the DASD (3.21) and slightly lower household size (2.74 vs 2.79) in 2010, but both were larger than the County and State. The percent of family households within the Township in 2010 was also slightly lower than the DASD and County, but larger than the State.

TABLE 2-5
HOUSEHOLD INFORMATION, 2000 to 2010 Comparison

	Uwchlan Township		DASD		Chester County		Pennsylvania	
	2010	2000	2010	2000	2010	2000	2010	2000
Average Household Size	2.74	2.80	2.79	2.83	2.65	2.65	2.45	2.48
Percentage of Family Households	76.1	77.1	76.6	78.8	76.2	71.8	69.6	67.2
Percentage of Non-Family Households	23.9	22.9	23.4	21.2	23.8	28.2	30.4	32.8
Average Family Size	3.18	3.24	3.21	3.23	3.16	3.15	3.02	3.04

Source: U.S. Census Bureau, 2010, Table DP-1, Profile of General Population and Housing Characteristics.

U.S. Census 2010 indicates: "family households" consist of a householder and one or more other people related to the householder by birth, marriage, or adoption. They do not include same-sex married couples even if the marriage was performed in a state issuing marriage certificates for same-sex couples. Same-sex couple households are included in the family households category if there is at least one additional person related to the householder by birth or adoption. Same-sex couple households with no relative of the householder present are tabulated in nonfamily households. "Nonfamily households" consist of people living alone and households which do not have any members related to the householder. U.S. Census 2010 reported 5,033 family households and 1,577 nonfamily households in Uwchlan.

SOCIO-ECONOMIC CHARACTERISTICS

Understanding the economic conditions of Uwchlan as reported by the U.S. Census Bureau is another important element of planning for the Township. As noted previously, the 2010 Census did not collect the same amount of information as the 2000 Census, therefore information reported by the American Community Survey for 2013-2017 fills in the missing data for much of the following tables. Uwchlan is an affluent municipality as demonstrated by the data gathered. Table 2-6 indicates that both the median household and family incomes of Uwchlan were slightly less than the DASD, significantly larger than the County, and almost double the State. The Township per capita income reflected a similar trend as the median household and family incomes for all jurisdictions. The percent of total Township families living below the poverty level in 2017 was greater than that of DASD, less than the County, and significantly less than the State.

TABLE 2-6
INCOME & POVERTY LEVELS, 2017

	Uwchlan Township	DASD	Chester County	Pennsylvania
2017 Per Capita Income	\$49,198	\$52,574	\$46,256	\$31,476
2017 Median Household Income	\$110,303	\$115,607	\$92,417	\$56,951
2017 Median Family Income	\$133,669	\$135,716	\$113,426	\$72,692
Percent of Families Below 2017 Poverty Level	2.4	1.4	4.0	8.9

Source: U.S. Census Bureau, American Community Survey, 2013-17, Table DP03, Selected Economic Characteristics.

Residents of Uwchlan Township are well educated, as shown in Table 2-7. The 2017 data indicates that the percent of the Township population 25 years and older who were high school graduates continues to be higher than that of the DASD, County, and State. The percent of the Township population with college degrees increased significantly between 2000 and 2017 (57.7% vs 63.7%) and, similar to 2010, continued to be higher than that of the DASD, considerably higher than the County, and double the State. Although not shown in Table 2-7, of the other seven municipalities comprising the DASD, Upper Uwchlan Township (68.8%) and West Pikeland Township (72.4%) had higher percentages of college graduates.

TABLE 2-7
COMPARATIVE EDUCATIONAL LEVELS – 25 YEARS & OLDER, 2000 to 2017 Comparison

	Uwchlan Township		DASD		Chester County		Pennsylvania	
	Percent		Percent		Percent		Percent	
	2000	2017	2000	2017	2000	2017	2000	2017
High School Graduate	97.0	98.0	93.9	97.2	89.3	92.9	81.9	89.9
College Graduate	57.7	63.7	46.2	59.2	42.5	51.0	22.4	30.1

Source: U.S. Census Bureau, 2000, Table DP-2, Profile of Selected Social Characteristics.

Source: U.S. Census Bureau, American Community Survey, 2013-17, Table DP02, Selected Social Characteristics.

Table 2-8 indicates that in 2017, Uwchlan had a lower percent (11.8%) of its population 3 years of age and over that attended nursery/preschool and kindergarten, than the DASD (13.1%), but similar to the County (11.4%), and higher than the State (10.8%). These age groups may have implications upon the schools within the Township as they advance in grades, assuming that they continue to reside in Uwchlan and remain within the public school system. The percent of Township students who attended elementary school (considered grades 1-8 by the Census) (43.4%) was higher than the DASD (41.6%), County (41.3%), and State (39.8%). The percent of Township students who attended high school (20.4%) was less than all three jurisdictions, particularly the DASD (25.9%). The percent of those persons in Uwchlan 3 years and over who were attending college in 2017 (24.4%) was greater than the DASD (19.5%), but less than the County (26.2%) and State (28.2%).

TABLE 2-8
SCHOOL ENROLLMENT - PERSONS 3 YEARS & OVER, 2017

	Uwchlan Township		DASD	Chester County	Pennsylvania
	Number	Percent	Percent	Percent	Percent
Total (3 years & older enrolled in school)	5,286				
Nursery School, Preschool	406	7.7	8.3	7.1	6.1
Kindergarten	218	4.1	4.8	4.3	4.7
Elementary School (grades 1-8)	2,394	43.4	41.6	41.3	39.8
High School (grades 9-12)	1,078	20.4	25.9	21.1	21.1
College or Graduate School	1,288	24.4	19.5	26.2	28.2

Source: U.S. Census Bureau, American Community Survey, 2013-17, Table DP02, Selected Social Characteristics.

HOUSING CHARACTERISTICS

The quality and condition of the housing stock and residential neighborhoods continues as one of the more important assets of the Township. Uwchlan residents derive a personal and public benefit from their well-maintained and varied

housing stock. In addition to the economic benefits resulting from appreciating property values in the Township, residents benefit from the opportunity to choose from a variety of different housing types, styles, prices, and environmental settings.

Housing values for owner occupied units and rents for renter occupied units indicate the quality of the housing stock within the Township as well as a picture of what the market will bear for housing. The housing values reported by the 2017 ACS for Uwchlan Township (see Table 2-9) were slightly lower than the DASD (\$372,900 vs \$372,425), higher than housing values in the County (\$338,200), and over double those values of the State (\$170,500). Rents in the Township were slightly over those of DASD and County, but considerably higher than the State as shown in Table 2-9. The percent of owner-occupied housing units decreased from 2010 (see Table 2-9) and was lower than the DASD, but higher than that of the County and State. As a consequence, the percent of County and State renter-occupied housing units was higher than that of the Township and DASD.

TABLE 2-9
HOUSING INFORMATION, 2000 to 2017 Comparison

	Uwchlan Township		DASD		Chester County		Pennsylvania	
	2000	2017	2000	2017	2000	2017	2000	2017
Median Value of Owner Occupied Housing Units	\$203,500	\$371,900	\$199,625	\$372,425	\$182,500	\$338,200	\$97,000	\$170,500
Median Gross Rent of Renter Occupied Units	\$852	\$1,339	\$859	\$1,292	\$754	\$1,256	\$531	\$885
Percent of Owner Occupied Housing Units	82.0	77.9	82.4	82.1	76.3	75.2	71.3	69.0
Percent of Renter Occupied Housing Units	18.0	22.1	17.6	17.9	23.7	24.8	28.7	31.0

Source: U.S. Census Bureau, American Community Survey, 2013-17, Table DP04, Selected Housing Characteristics.

Table 2-10 provides a breakdown of the housing units by type. As Table 2-10 depicts, single family detached units were the dominant housing type in Uwchlan in 2017 with 4,222 units (60.1%) of the 7,026 total housing units, albeit a lesser percentage than 65.9% reported in 2000. The Township percent of single-family units was less than DASD (68.1%) and the County (61.7%), but more than the State (57.1%). The percent of 1-unit attached structures (townhouses) in Uwchlan (21.2%) was higher than those for DASD, County, and State (14.8%, 17.8% & 18.6%). The Township percent of 2-unit structures at 1.4% (twin or duplex) was similar to DASD (1.3%), but considerably lower than the County (2.0%) and State (4.5%). The percent of multi-unit structures containing 3-9 units (apartments or condominiums), was greater than the DASD, County, and State (7.7% vs 4.7%, 6.3% & 7.4%) Unlike the 3-9 unit structures, the percent of Township multi-unit structures containing 10 or more units was less than DASD and County (8.5% vs 9.4% & 9.7%), but same as the State (8.4%). The percent of mobile homes in the Township (1.1%) was similar to the DASD (1.8%), but lower than the County (2.6%) and State (4.0%).

TABLE 2-10
TOTAL HOUSING UNITS, 2000 to 2017 Comparison

Unit Type	Uwchlan Township				DASD		Chester County		Pennsylvania	
	Number		Percent		Percent		Percent		Percent	
	2000	2017	2000	2017	2000	2017	2000	2017	2000	2017
Total	6,030	7,026	100.0							
1 Unit Detached	3,972	4,222	65.9	60.1	69.0	68.1	62.1	61.7	55.9	57.1
1 Unit Attached	1,171	1,490	19.4	21.2	15.0	14.8	16.6	17.8	17.9	18.6
2 Units in Structure	33	100	0.5	1.4	1.2	1.3	2.1	2.0	5.2	4.5
3-4 Units in Structure	191	111	3.2	1.6	2.3	1.8	3.2	2.9	4.6	4.1
5-9 Units in Structure	179	429	3.0	6.1	2.9	2.9	3.6	3.4	3.4	3.3
10-19 Units in Structure	233	223	3.9	3.2	3.8	4.1	4.1	4.1	2.5	2.5
20 or More Units in Structure	182	373	3.0	5.3	3.2	5.3	5.1	5.6	5.4	5.9
Mobile Home	53	78	0.9	1.1	2.4	1.8	3.1	2.6	4.9	4.0
Other	16	0	0.3	0.0	0.1	0.0	0.1	0.0	0.1	0.0

Source: U.S. Census Bureau, 2000, Table DP-4, Profile of Selected Housing Characteristics.

Source: U.S. Census Bureau, American Community Survey, 2013-17, Table DP04, Selected Housing Characteristics.

The Township records indicate that as of December 31, 2019 there were a total of 6,952 existing dwellings in Uwchlan, an increase of 389 dwelling units over the total reported in the 2010 Plan of 6,563. The breakdown is as follows:

- 4,274 Single Family Detached Dwellings (an increase of 56)
- 1,324 Townhouses (no increase)
- 1,246 Apartments (an increase of 333)
 - 60 Twin Houses (no increase)
 - 48 Condominiums (no increase)
 - 35 Mobile Homes (no increase)

As of December 2019, Township records indicated that approximately 9 single-family residential permits units had been approved. The Existing Development & Land Use Pattern section of this Chapter and Plan for Land Use contain more information on future residential development.

Residency of the Township has been stable with 90.9% of its population over 1 year in age residing in the same home in 2015 as shown in Table 2-11. An additional 4.8% resided elsewhere in Chester County in 2015. Residency rates were similar for the DASD and County with 91.5% and 89.3% respectively, with the State slightly lower at 87.8%.

TABLE 2-11
RESIDENCE 1 YEAR AGO (2015) - PERSONS 1 YEAR & OVER, 2012-2016

Location	Uwchlan Township		DASD	Chester County	Pennsylvania
	Number	Percent	Percent	Percent	Percent
Total	18,402				
Same House in 2015	16,734	90.9	91.5	89.3	87.8
Different House in the U.S.	1,556	8.5	7.7	10.2	11.7
Same County	877	4.8	4.1	5.4	7.3
Different County	679	3.7	3.6	4.8	4.4
Same State	463	2.5	1.8	2.7	2.6
Different State	216	1.2	1.7	2.1	1.8
Abroad	112	0.6	0.9	0.6	0.5

Source: U.S. Census Bureau, American Community Survey, 2012-16, Table DP02, Selected Social Characteristics.

Table 2-12 notes that 97.2% of the total housing units were occupied in 2017, which was lower than the 2000 number of 98.2%. The occupancy rate was slightly higher than that of DASD (95.8%) and County (95.3%), but much higher than the State (88.6%). The homeowner vacancy rate of Uwchlan at 0.0% was lower than DASD, County, and State (0.4%, 1.0% & 1.7%). The rental vacancy rate was also lower in Uwchlan than the other jurisdictions (3.7% vs 5.3%, 50.0% & 5.9%). The ACS reported that those units in Uwchlan in 2017 that lacked complete plumbing (0.1%), kitchen (1.4%), and telephone (1.7%) facilities were similar to the percentages of DASD, County, and State.

TABLE 2-12
OCCUPANCY & SELECTED CHARACTERISTICS, 2000 to 2017 Comparison (ALL HOUSING UNITS)

	Uwchlan Township				DASD		Chester County		Pennsylvania	
	Number		Percent		Percent		Percent		Percent	
	2000	2017	2000	2017	2000	2017	2000	2017	2000	2017
Total	6,030	7,026								
Occupied Housing Units	5,921	6,827	98.2	97.2	97.6	95.8	96.4	95.3	91.0	88.6
Vacant Housing Units	109	199	1.8	2.8	2.4	4.2	3.6	4.7	9.0	11.4
Homeowner Vacancy Rate (%)	-	-	0.6	0.0	0.7	0.4	1.0	1.0	1.6	1.7
Rental Vacancy Rate (%)	-	-	3.1	3.7	5.6	5.3	4.8	5.0	7.2	5.9
Lacking Complete Plumbing Facilities	19	9	0.3	0.1	0.4	0.5	0.3	0.3	0.5	0.4
Lacking Complete Kitchen Facilities	5	97	0.1	1.4	0.2	1.3	0.3	0.8	0.5	1.0
No Telephone Service	21	116	0.4	1.7	0.4	1.2	0.8	1.5	1.4	1.9

Source: U.S. Census Bureau, 2000, Tables DP-1 & 4, Profile of General Demographic Characteristics & Profile of Selected Housing Characteristics.

Source: U.S. Census Bureau, American Community Survey, 2013-17, Table DP04, Selected Housing Characteristics.

Uwchlan has a relatively new housing stock based upon age of housing units reported in 2017. Although the ACS 2017 number of 7,026 differs from the Township 2019 number of 6,952 (+1.1%), the numbers in Table 2-12 provide a reasonable assessment of the age of the housing stock. Table 2-13 indicates that over 60% of the housing units (61.9%) were built since 1980. The DASD had a similar 60.3% housing units built since 1980, but experienced a more recent increase with almost 40% (41.2%) built since 1990. The County, conversely, had just under 50% (49.9%) of its housing stock built before 1980. The State similarly had only 29.5% built since 1980 with 58.1% built before 1970.

TABLE 2-13
AGE OF HOUSING UNITS – YEAR BUILT, 2017

	Uwchlan Township		DASD	Chester County	Pennsylvania
	Number	Percent	Percent	Percent	Percent
Total Housing Units	7,026	100.0			
2014 or later	4	0.1	0.6	0.6	0.5
2010-2013	143	2.0	3.3	2.2	1.4
2000-2009	888	12.6	21.1	15.8	8.5
1990-1999	1,414	20.1	16.2	15.6	9.6
1980-1989	1,906	27.1	19.1	16.0	9.5
1970-1979	1,386	19.7	14.5	14.0	12.4
1960-1969	966	13.7	8.1	9.9	10.2
1950-1959	144	2.0	5.0	8.9	13.7
1940-1949	11	0.2	2.5	3.0	7.8
1939 or earlier	164	2.3	9.5	14.0	26.4

Source: U.S. Census Bureau, American Community Survey, 2013-17, Table DP04, Selected Housing Characteristics.

EMPLOYMENT CHARACTERISTICS

An analysis of the number of Township residents that are employed, along with the types of occupations in which they are employed, provides additional useful information for planning purposes. Table 2-14 indicates that over half (55.2%) of employed residents had management, professional, and related occupations, which was slightly less than the DASD (56.0%), but greater than the County (49.7%) and significantly higher than the State (37.7%).

TABLE 2-14
OCCUPATION - EMPLOYED PERSONS 16 YEARS & OVER, 2017

Occupations	Uwchlan Township		DASD	Chester County	Pennsylvania
	Number	Percent	Percent	Percent	Percent
Total Population 16 Years & Over	10,125	-	-	-	-
Management, Professional & Related	5,637	55.2	56.0	49.7	37.7
Service	1,137	11.1	10.9	13.7	17.4
Sales & Office	2,473	24.2	23.1	21.9	23.3
Natural Resources, Construction & Maintenance	377	3.7	4.4	7.3	8.2
Production, Transportation & Material Moving	591	5.8	5.6	7.4	13.4

Source: U.S. Census Bureau, 2013-17 American Community Survey 5-Year Estimates, Table DP03, Selected Economic Characteristics.

Table 2-15 displays a similar result when comparing the employment by type of industry. The leading industry groups within which Uwchlan residents worked were educational, health, social services (22.2%) and professional, scientific, management, administration, waste management services (16.9%). The DASD educational services number (21.4%) was slightly less, but its professional services number was much higher (19.1%). The County (22.5%) and State (25.8%) had higher educational services numbers than the Township, but much lower professional services numbers (15.3% & 10.2%). Retail trade (12.5%), manufacturing (11.4%), and finance, insurance, real estate (9.8%) were also larger industry types for Uwchlan residents and generally mirrored those percentages of DASD, County, and State, except for the State finance number which was almost half that of the Township.

TABLE 2-15
EMPLOYED PERSONS 16 YEARS & OVER BY INDUSTRY, 2017

Industry	Uwchlan Township	DASD	Chester County	Pennsylvania
	Percent	Percent	Percent	Percent
Agriculture, Forestry, Fishing & Hunting & Mining	0.5	0.4	2.7	1.4
Construction	2.9	3.8	5.4	5.8
Manufacturing	11.4	11.4	11.4	11.9
Wholesale Trade	3.1	4.2	3.1	2.8
Retail Trade	12.5	11.3	10.0	11.5
Transportation, Warehousing & Utilities	2.9	3.8	3.5	5.4
Information	4.6	2.7	2.3	1.7
Finance, Insurance, Real Estate, Rental & Leasing	9.8	10.3	10.0	6.5
Professional, Scientific, Management, Admin & Waste Manage Services	16.9	19.1	15.3	10.2
Educational Services, Health Care & Social Assistance	22.2	21.4	22.5	25.8
Arts, Entertainment, Recreation, Accommodation & Food Services	6.0	5.8	7.6	8.4
Other Services	5.4	3.5	3.9	4.6
Public Administration	2.1	2.6	2.3	4.0

Source: U.S. Census Bureau, 2013-17 American Community Survey 5-Year Estimates, Table DP03, Selected Economic Characteristics.

Source: U.S. Census Bureau, 2000, Table DP-3, Profile of Selected Economic Characteristics.

Table 2-16 provides a comparison of the Township to the DASD, County, and State in the composition of the work force by selected classification of workers. Private wage and salary dominated the classification of Uwchlan workers with 89.6%, which was similar to the other jurisdictions, although slightly higher. The percent of government and self-employed workers in the Township was lower than the other jurisdictions.

TABLE 2-16
PERCENT OF EMPLOYED PERSONS 16 YEARS & OVER BY CLASS OF WORKER, 2000 to 2017 Comparison

Class of Worker	Uwchlan Township				DASD		Chester County		Pennsylvania	
	Number		Percent		Percent		Percent		Percent	
	2000	2017	2000	2017	2000	2017	2000	2017	2000	2017
Private Wage & Salary	7,943	9,153	88.7	89.6	86.0	86.5	84.4	86.2	82.4	84.4
Government	569	658	6.4	6.4	7.8	8.7	8.5	8.3	11.3	10.4
Self Employed	444	404	5.0	4.0	6.1	4.8	6.8	5.3	6.0	5.1
Unpaid Family	0	0	0.0	0.0	0.1	0.1	0.3	0.1	0.3	0.1

Source: U.S. Census Bureau, 2000, Tables DP-3, Profile of Selected Economic Characteristics.

Source: U.S. Census Bureau, 2013-17 American Community Survey 5-Year Estimates, Table DP03, Selected Economic Characteristics.

The place of work for the Township residents reveals something of the character of the municipality, whether the municipality is economically self-sufficient in terms of a commercial/industrial tax base, or merely a “bedroom” community. Table 2-17 displays the place of work by percent of those workers age 16 and over years as reported by the U.S. Census, Center of Economic Studies, in 2015. Based upon 2015 report Uwchlan could still be considered a bedroom community, as only 7.6% of Uwchlan residents worked in the Township, however this a bit of an anomaly as DVRPC reports that in 2015, 14,889 persons worked within the Township, the fifth highest municipality in Chester County. Tredyffrin led with 55,495 persons, followed by West Whiteland, East Whiteland, and West Goshen (see Table 2-19). More than half of the Township residents (53.1%) worked in Chester County, which was less than that experienced by the DASD (56.0%), but more than the County (45.3%). Montgomery and Berks Counties were the highest two counties of work outside of Chester County for residents of Uwchlan and DASD; Montgomery and Delaware Counties were the two highest for Chester County. 11.4% of Uwchlan residents worked elsewhere in Pennsylvania, a larger percentage than both DASD and the County. New Jersey and Delaware were the next highest states for all three - Uwchlan, DASD, and County.

TABLE 2-17
PLACE OF WORK – WORKERS 16 YEARS & OVER, 2015

Location of Work	Uwchlan Township		DASD		Chester County	
	Percent		Percent		Percent	
Total	100.0					
Municipality of Residence	7.6		-		-	
Chester County	53.1		56.0		45.3	
Montgomery County	12.4		10.0		13.7	
Berks County	6.6		5.5		4.0	
Delaware County	5.6		5.3		9.6	
Philadelphia County	3.8		3.6		5.3	
Lancaster County	3.5		4.4		4.2	
Bucks County	2.9		2.5		3.0	
Worked Elsewhere in State	11.4		8.4		7.2	
New Jersey	1.8		1.5		2.8	
Delaware	1.3		1.4		3.3	
Maryland	0.4		0.4		1.0	
New York	0.3		0.3		0.4	
Elsewhere in US	0.3		0.4		0.4	

Source: U.S. Census Bureau, 2015, Center for Economic Studies.

As can be seen in Table 2-18, 82.4% of Uwchlan residents who traveled outside of the Township to work, drove alone in a car or other motor vehicle, which was larger than the DASD (79.2%), County (79.0%), and State (76.4%). The 82.4% in 2017 was less than the 85.5% in 2000. A smaller percent of Uwchlan workers carpooled (6.5%) than the DASD (7.2%), County (7.1%), and State (8.5%). A similarly smaller percent of Uwchlan workers (2.6%) used public transportation than DASD, County, and State due primarily to mass transit not being easily accessible Township residents as it is to the other jurisdictions. Township workers as well as those in the DASD and County had half the percent of the State using public transportation. The other large increase from 2000 to 2017 was those walking to work – a jump from 0.3% to 1.6%; also experienced in DASD and County, but not the State. The percent of Uwchlan residents working at home (6.4%), while greater than 2000, was less than DASD (8.1%) and County (7.0%), but higher than the State (4.4%). The Township and each jurisdiction experienced an increase in the percent of residents working at home between 2000 and 2017; a nation- wide trend. Travel time to work for Uwchlan residents (26.4 minutes) was less than the other jurisdictions.

TABLE 2-18
MEANS OF TRANSPORTATION TO WORK - WORKERS 16 YEARS & OVER, 2000 to 2017 Comparison

	Uwchlan Township				DASD		Chester County		Pennsylvania	
	Number		Percent		Percent		Percent		Percent	
	2000	2017	2000	2017	2000	2017	2000	2017	2000	2017
Car, Truck or Van										
Drove Alone	7,535	8,277	85.5	82.4	84.4	79.2	80.7	79.0	76.5	76.4
Carpooled	429	652	4.9	6.5	6.8	7.2	8.6	7.1	10.4	8.5
Public Transportation	266	260	3.0	2.6	2.4	3.3	2.6	2.8	5.2	5.6
Walked	25	156	0.3	1.6	1.0	1.8	2.5	3.3	4.1	3.8
Other Means	36	55	0.4	0.5	0.6	0.7	0.6	0.9	0.8	1.4
Worked at Home	525	648	6.0	6.4	4.7	8.1	4.9	7.0	3.0	4.4
Mean Travel Time to Work (min)	27.4	26.4			28.3	30.0	27.5	27.9	25.2	26.7

Source: U.S. Census Bureau, 2000, Table DP-3, Profile of Selected Economic Characteristics.

Source: U.S. Census Bureau, 2013-17 American Community Survey 5-Year Estimates, Table DP03, Selected Economic Characteristics.

Similar to the population forecasts in Table 2-2, DVRPC also prepared a 2015 employment estimate and 2020-2045 forecasts for municipalities in the southeastern Pennsylvania. The estimate and forecasts are shown on Table 2-19. Findings of the DVRPC forecasts include: the estimated 14,889 employed within Uwchlan comprises 42% of the 35,514 employed within the

DASD; and employment within the Township is expected to increase at a greater rate than the DASD and County over the next 20-25 years.

TABLE 2-19
EMPLOYMENT FORECASTS 2015 TO 2045 & TOP 10 in CHESTER COUNTY

Year	Uwchlan Township		DASD		Chester County		Top 10 Chester County	
	Employed	Increase	Employed	Increase	Employed	Increase	Municipality	Employed
Estimate							Tredyffrin Twp	55,495
2015	14,889	-	35,514	-	309,605	-	West Goshen Twp	24,174
Forecast							West Whiteland Twp	23,476
2020	16,014	7.6%	37,710	6.2%	326,320	5.4%	East Whiteland Twp	23,399
2025	17,312	8.1%	40,227	6.7%	343,050	5.1%	Uwchlan Twp	14,889
2030	18,619	7.5%	42,767	6.3%	359,774	4.9%	West Chester Bor	11,440
2035	19,674	5.7%	44,879	4.9%	374,967	4.2%	Caln Twp	8,191
2040	20,545	4.4%	46,626	3.9%	387,391	3.3%	East Goshen Twp	8,156
2045	21,626	5.3%	48,534	4.1%	397,405	2.6%	Easttown Twp	7,006
							Phoenixville Bor	6,835

Source: DVRPC, July 2016

EXISTING DEVELOPMENT & LAND USE PATTERN

An important element of this Comprehensive Plan Update is the analysis of Township's existing land uses. The descriptions characterize the existing development and highlight the land use pattern. Examining the existing land use over time provides a picture of the historic trends that shaped the current arrangement of land uses. Viewing the existing development and land use pattern of the Township provides the opportunity to evaluate areas best suited for specific future development and serves as the framework for the plan for land use. In addition, the review and documentation of the existing land use reduces the potential conflict of uses within the Future Land Use Plan

PAST DEVELOPMENT

Prior to 1970, the Township was predominantly a rural community with a majority of its land area in agricultural use. Commercial uses were small and scattered, and industrial uses in the Township were negligible. The Township experienced unprecedented growth in the 1970s and 1980s, due primarily to the location of the Downingtown Interchange of the Turnpike, as well as the intersection of Routes PA 100 and 113, and the availability of public water and sewer service. Residential uses were concentrated in two areas: The Village of Lionville; and subdivisions along Route 113.

During the 1970s and 1980s, extensive single-family development was constructed in the southern and central portions of the Township including Arbordale, Ashbridge, Brookwood, Century Oaks, Foxcroft, Greenbriar, Marchwood, Pine Creek Valley, Tarrencoyd, Timber Springs and Welsh Ayres. Multi-family developments were added in the Routes 100 and 113 corridors, including Rhondda PRD, Marchwood Apartments and Aspenwood along Route 100, Severgn along Route 113 and Village Walk along Village Avenue in Lionville, and Liongate and Pickering Pointe located between Route 113 and the PA Turnpike. Several commercial centers were constructed adjacent to the major traffic routes - including Marchwood Center and Colonial 100 along Route 100 and the Lionville and Heritage Centers along Route 113. The Pickering Creek Industrial Park, located east of Route 113 between Route 100 and the Turnpike, Stoneridge located north of the Routes 100 and 113 Intersection, and the Eagleview Corporate Center were also constructed and/or commenced during this same time period.

Single family and multi-family development continued into the 1990s. Single-family developments included: The Seasons and Silver Birches south of Dowlin Forge Road; Shamona Ridge, Uwchlan Hunt, and Whitebriar west of Dorlan Mill Road; Williamsburg on Norwood Road; and Woodlark east of Route 100. Townhouse developments were constructed at Holly Tree and Pickering Station, adjacent to Liongate. Residential development was initiated at the Eagleview development, including the Overlook, Gardens, Claremont Village, and senior housing. The YMCA and commercial uses were developed in the Eagleview Town Center in the late 1990s. Office development continued at Eagleview as well as Stoneridge. Several major community facilities were also constructed, including the Shamona Creek Elementary School on Dorlan Mill Road, the new Downingtown Middle School and conversion of the Junior High to Downingtown East High School on Route 113 in Lionville as well as the construction of the YMCA on Devon Drive.

During the 2000s, residential development included: The Ridings, 95 single family lots; Windham, 54 single family lots; Jefferson Grove 22 two-family lots; and Eagleview 463 dwelling units, including Claremont Apartments, Wellington Condominiums, the live-work units, and build-out of Claremont Village. Some commercial uses developed since 1999 included: Exton Ice on Haywood Drive; Elite on Sheree Boulevard; Journal Register Offset, Aegon. Target, Appleby's, Lionville Business Center, and Eckerd/Rite Aid along Eagleview Boulevard; CVS, First National Bank, and medical building along Route 113 (east); Wawa and Commerce/TD Bank along Route 113 (west); Old Village Plaza at the Lionshare; and Starbucks and Subway at Route 100 and Gordon Drive. Community facility uses included Calvary Chapel on Dowlin Forge Road. Parks and open space are discussed separately later in this Chapter.

Since 2010, residential development has been limited, reflective of the downturn in the real estate market and few remaining residentially zoned properties within Uwchlan. New residential development between 2010 and 2018 consisted of the following: Meridian Apartments and Claremont on the Square at the town center "square" in Eagleview; and Turnbury a 25- lot single family development with 8 acres of open space located between Windham and the Rossi Golf Center. Commercial included: improvements to the aforementioned Rossi Golf Center on PA Route 113; West Pharmaceutical located off Eagleview Boulevard; and completion of the "restaurant row" in the Eagleview Town Center.

2018 DEVELOPMENT & LAND USE PATTERN

Each Comprehensive Plan/Update, 1965, 1970, 2000, and 2010, all documented existing land use in the Township. The existing land use presented within this Update reflects the 2020 conditions in Uwchlan. For consistency with the 2010 Plan, the existing land use was divided into the same categories shown on Map 2-1 and Table 2-20.

The land uses in Uwchlan are shown on Table 2-20 and include residential, commercial, industrial, community facilities, parks/open space, agriculture, vacant, and roadways. The land use tabulation of Table 2-20 includes the entire parcel area, not just the portion occupied by the particular developed use. As noted above, the major changes in the Township since 2010 years due to recent development involved an increase in residential, commercial, roadways, and parks/open space, with a corresponding decrease in vacant land.

TABLE 2-20
EXISTING LAND USE, UWCHLAN TOWNSHIP 2020

Land Use Category	2019	
	Acres	Percent
Residential	3,129*	47.0
Single-Family	2,903	43.6
Two-Family	12	0.2
Multi-Family	214	3.2
Commercial	646*	9.7
Industrial	68	1.0
Community Facilities	250*	3.7
Parks/Open Space	1,005*	15.1
Preserved Farm	93*	1.4
Agriculture	425*	6.4
Vacant/Undeveloped	242*	3.6
Roadways	795	11.9
Total Township Acreage	6,656	100.0

Sources: Chester County GIS & Tax Assessment Data and land use survey 2020.

*Environmentally constrained lands (floodplains, wetlands, riparian buffers, and steep slope) are included within the noted land use categories and are quantified on Page 2-34.

Residential

Residential is located mainly within the southern two-thirds of the Township with the exception of Eagleview, the area adjacent to East Township Line Road, and triangle bounded by Route 113, PA Turnpike, and West Pikeland. Within the residential category, multi-family development (townhouses, apartments, condominiums) is generally located in the following areas: the triangle bounded by Route 113, PA Turnpike, and West Pikeland (Holly Tree, Liongate, and Pickering Pointe); Eagleview (Claremont Apartments, Claremont Village, Garden Villas, Wellington, Meridian Apartments, Claremont of the Square, and the senior apartments); Lionville east of Route 113 and south of Village Avenue (Severgn and Village Walk); both sides of Route 100 from Worthington Road and Rutgers Drive south to Marchwood and Ships Roads (Rhondda, Cadwalader, Aspenwood, Seasons, and Marchwood Apartments). Single family development essentially covers the remainder of the aforementioned area with the exception of the two-family dwellings of Jefferson Grove off of Burdett Drive. Due to the methodology established for the 2000 plan, several residential parcels are large enough for further development. Most of these parcels are not large, but collectively total around 100 acres and generally have some limiting natural feature. The two largest parcels are located west of Windham (15.9 acres) and on Peck Road (20.7 acres). While large parcels, these properties both have natural features, as noted above, such as streams with associated floodplain, wetlands, and steep slopes that would restrict development of the entire tract.

Commercial

Commercial uses consist of office, retail, and service, and were classified such in the 2000 Plan. Most of the commercial uses are located in the following areas of the Township: along Rice Boulevard and Pennsylvania Avenue from Stockton Drive to Route 100; along both sides of Eagleview Boulevard from Routes 113 to 100; both sides of Route 113 from Stoneridge to Gordon Drive; west side of Route 113 north of the PA Turnpike to West Pikeland; along Route 100 from Lionville to West Whiteland; the Town Center in Eagleview; and at the intersection of Route 113 and Peck/Whitford Hills Roads.

Industrial

Industrial uses continue to be located within the Pickering Creek Industrial Park bounded by Route 100, Gordon Drive, PA Turnpike, and Century Oaks.

Community Facility

Community facility uses consist of the schools of the Downingtown Area School District (DASD), the YMCAs, churches, and municipal facilities. Generally community facilities are located in the southern portion of the Township in Lionville (Uwchlan Fire Company and Ambulance Corps and churches), along or near Route 113 from Lionville south (East High School, Lionville Middle School, Lionville Elementary, Uwchlan Hills Elementary Schools, church, and YMCA), along or near Route 100 south (Township Building at Ship Road, Sanitation Department on Rutgers Drive, and churches). The exceptions are the following: the YMCA and wastewater treatment plant in Eagleview; Marsh Creek 6th Grade Center and Shamona Creek Elementary off Dorlan Mill Road in the north; and churches along Route 113 near the West Pikeland line.

Park and Open Space

Parks and open space are located predominately south/west of Route 100, except Rhondda and areas in the southeast corner of the Township. Since 2010, the 8.2 acres of open space at the Turnbury development south of Windham has been added to the network of open space within the Township. The descriptions and areas of the various parks and open space lands of Uwchlan are detailed later in this Chapter.

Agriculture

Agriculture continues on all or most of two properties (DASD & Matthews) located north of the Pa Turnpike and west of Route 113 and one property (Nelson Realty) at the PA Turnpike Interchange and Route 100. The Gray property on Worthington Road is also in agriculture. A conservation easement has been placed on the 93-acre Matthews property leaving the three large tracts that total about 425 acres. The two largest properties (DASD & Nelson Realty) are zoned PIC, Planned Industrial- Commercial District, although a 24-acre portion of the DASD property is zoned R-R, Rural Residential District. Plans for the development of each property have been discussed with the Township during the past ten years. The 71-acre Gray property is the only residentially zoned tract of the three with an R-1 Residential District designation.

Vacant/Undeveloped

The amount of land in Uwchlan that remains undeveloped is limited. Most of the available land remaining in the Township is zoned for non-residential uses. The area zoned PCID, Planned Commercial Industrial Development District includes the balance of Eagleview Corporate Center (along Eagleview Boulevard, Pennsylvania Avenue, and Route 100) and the Town Center totaling about 27 acres. The balance of Stoneridge, which is zoned PIC, Planned Industrial-Commercial District and totals about 58 acres, plus 29 acres on the westside of Route 100. Two parcels on Haywood Drive totaling about 25 acres zoned PIC. One parcel located between the PA Turnpike and PA Route 100 totaling 33 acres. Two parcels along the PA Turnpike totaling about 35 acres zoned PI. Some small infill-commercial areas near the Eagleview boulevard-Sheree Boulevard intersection which are zoned PC, Planned Commercial District, collectively about 6 acres.

A smaller portion of the Township is currently zoned for residential uses, which consist of smaller vacant lands, collectively about 46 acres. Notable groups of parcels are located: south of the PA Turnpike adjacent to West Pikeland zoned R-1; south side of Dowlin Forge Road zoned R-A; a parcel north of the PA 113 zoned R-R; a parcel south of Lionville Station Road adjacent to West Pikeland zoned R-R; and Eagleview Town Center zoned PCID.

Roadways

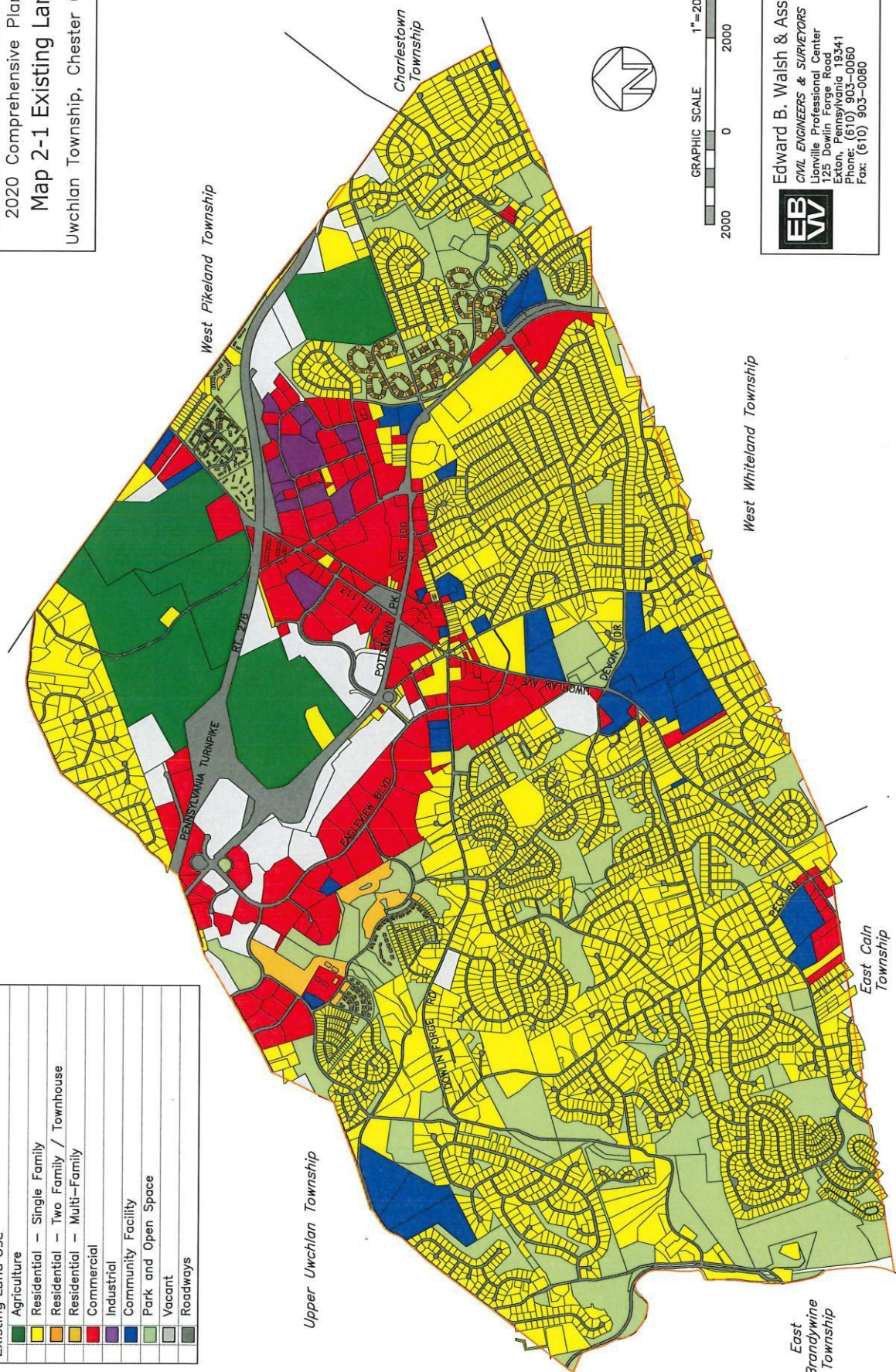
The road network of within Uwchlan is shown Map 2-1, whether owned by the Township or State. The representation of the roadways generally corresponds to their associated right-of-way. The only new road since 2010 is the extension of Windham Drive into Turnbury. Lands owned by the PA Turnpike and PADOT are also depicted on Map 2-1.

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2020 Comprehensive Plan Update
Map 2-1 Existing Land Use
 Uwchlan Township, Chester County, PA

Legend

Existing Land Use	
	Agriculture
	Residential - Single Family
	Residential - Two Family / Townhouse
	Residential - Multi-Family
	Commercial
	Industrial
	Community Facility
	Park and Open Space
	Vacant
	Roadways



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Map 2-1
Existing Land Use (back)

COMMUNITY FACILITIES & SERVICES

Community facilities and services are those owned and operated publicly or by private groups or associations that provide functions to serve the public at large. Facilities and services inventoried in this section include: educational facilities, emergency services including police, fire, and ambulance services; and municipal facilities and services. The availability of the various utilities in the Township, such as public sewer and water, solid waste, and storm drainage is also examined due to its importance in terms of present development and future growth. The demand for community services and facilities has increased as the Township grew over the past two decades. In addition to an inventory of the facilities and services any deficiencies in the present level of services are highlighted. Map 2-2 depicts the Community Facilities & Services in the Township.

EDUCATIONAL FACILITIES

Uwchlan Township is the largest (population) of the eight municipalities that comprise the Downingtown Area School District (DASD). DASD provides education for school-age children from kindergarten through grade 12, which includes bus transportation for most of the students residing in Uwchlan Township. When combined with population data such as school age children highlighted earlier, the current enrollment and capacities of the schools inventoried within this section provide a forecast of potential need. New school facilities may be considered when developing land use, transportation, and recreational plans, in addition to establishing subdivision and zoning regulations.

The three elementary schools located within Uwchlan have been renovated within the last 12 years in an attempt to meet all population projections for DASD. Lionville Elementary School, built in 1960 and renovated in 1997, has a capacity of 600 students and a September 2019 enrollment of 641 students. Uwchlan Hills Elementary School, built in 1972 and renovated in 2018-19, has a capacity of 575 students and a September 2019 enrollment of 477 students. Shamona Creek Elementary School, built in 1990 and renovated in 2007, has a capacity of 675 students and a September 2019 enrollment of 599 students. Each school serves grades kindergarten (K) through 5th grade. Marsh Creek Sixth Grade Center was constructed in 2014-15 with a capacity of 1,200 students and had a September 2019 enrollment of 1,044 students.

Lionville Middle School, which was renovated in 2006, accommodates students from grades 7 through 8. The building has a capacity of 1,350 students and a September 2019 enrollment of 1,110 students.

The Downingtown East Senior High School, which opened in 2000, serves students in grades 9 through 12 and has a capacity of 1,700 students with a September 2019 enrollment of 1,724 students.

DASD reports that as of December 4, 2019, a total of 13,716 students attended its schools.

EMERGENCY SERVICES

Emergency services are invaluable to the safety and welfare of both the residents and businesses of Uwchlan providing police, fire, and ambulance personnel with the life and property saving services vital to the quality of life of the Township. Calls for emergency services are initiated through a 911 system. Police and fire protection and emergency medical services are identified below.

Police Services

The Uwchlan Township Police Department currently provides police protection, which is a service both expected and an appreciated service by the residents of Uwchlan Township. The need for such services grows as both the population and amount of non-residential development grows. The police department consists of 22 full-time officers that breaks down as follows: 1 chief of police, 1 lieutenant, 16 patrol officers, 2 detectives, 1 traffic safety sergeant and 1 traffic safety officer. In addition, there are 3 civilian support staff personnel (1 full-time and 2 part-time).

The police department operates a Community Policing Program that includes a "Park and Walk," SRO, and Community Conflict Resolution programs. These programs are designed to get police officers closer to the residents and provide a proactive customer focused police service. Police service in the Township has been rated very high in previous resident surveys.

Fire Protection Services

Fire protection to Uwchlan Township is provided by the Lionville Fire Company (Station 47). Lionville Fire Company serves Uwchlan Township along with portions of Upper Uwchlan and West Pikeland Townships. Station 47 has 40+ volunteer firefighters, 11-line officers, 10 administrative officers, and 9 fire police officers. Lionville Fire Company answered 1,600+ responses over the past three years for average yearly average of 554 responses. Station 47 has responded to 138 calls in the first quarter of 2018. Apparatus includes the following:

- Utility 47 is a Ford F-350 4x4 Crew Cab with Crest utility body.
- Rescue 47 is a 1998 Pierce Lance Heavy Rescue vehicle.
- Tower 47 is a 2000 Pierce Dash 100' Sky-Arm Tower Ladder vehicle.
- Engine 47-2 is a 2003 Pierce Dash Engine vehicle.
- Engine 47-5 is a 2008 Pierce Quantum Pumper Tanker vehicle.
- Boat 47-1 is a 12' v-hull inflatable.
- Boat 47-2 is a 10' v-hull inflatable.

All firefighters are certified as defined by the requirements of the NFPA 1000 Series. The Township provides an annual contribution to the Fire Company for anticipated service. In addition, during work hours, Township Road and Parks Department personnel will respond under the fire service provider program. The Township has a Fire Marshall and conducts annual fire inspections of all non-residential properties in the Township.

Ambulance Services

Uwchlan Ambulance Corps (Station 87), located on South Village Avenue, is a non-profit organization that provides Emergency Medical Services to the Township. Station 87 provides 24 hour, 7 days a week, 365 days a year service. Personnel consist of 80+ career and active volunteer staff including paramedics and EMTs. Station 87 responded 6,600+ calls over the past three years for average yearly average of 2,204 calls within their 45 square mile coverage area consisting of Uwchlan, Upper Uwchlan, West Whiteland, West Pikeland, West Vincent, East Nantmeal, and Wallace Townships. Station 47 has responded to 1,228 calls in the first third of 2018. Apparatus includes the following:

- Utility 87 is stocked with basic BLS Supplies and is used primarily as an officer's vehicle or for Special Events.
- Ambulance 87-1 is a 2006 Chevrolet C4500/Life Line Type 3 BLS/MICU vehicle.
- Ambulance 87-3 is equipped to handle BLS and ALS calls.
- Ambulance 87-4 is a 2006 Chevrolet C4500/Life Line Type 3 BLS/MICU vehicle.
- Ambulance 87-5 is capable of being ALS and BLS equipped and is used on Strike Team deployments.
- Ambulance 87-6 is a 2016 Chevrolet Braun Express.
- Medic 87-1 is Dodge Durango ALS chase car, as well as a Squad. This vehicle is equipped with incident command equipment.
- Medic 87-2 is the second ALS Chase car. This unit is ALS and BLS equipped.

Station 87 provides service to four regional hospitals: Chester County in West Chester, Brandywine, Paoli Memorial, and Phoenixville. Uwchlan Ambulance Corps provides special events/bike teams with EMTs and paramedics on an as needed basis. Station 87 participates (with 2 BLS and 2 ALS teams) in the Emergency Strike Teams coordinated by PAHD and FEMA as a statewide emergency response entity for those emergencies exceeding local and county resources; which have been both within and outside of Pennsylvania. In addition, Station 87 provides numerous educational opportunities for the community as well as many outreach programs.

MUNICIPAL FACILITIES

Facilities

The Uwchlan Township campus contains the following facilities: the administrative building with staff offices and public meeting rooms; the police department building; public works office and garages; memorials to both armed forces veterans and recognition those persons with longstanding service to the Township; and Baird Park (discussed later in the Chapter). The Uwchlan Sanitation Department is located at the Township property on Rutgers Drive. In addition, the Township owns and operates the Eagleview Wastewater Treatment Plant (discussed later in this section).

Township Governmental Organization

Uwchlan is incorporated as a Township of the Second Class and as such its governmental organization starts with the three-member Board of Supervisor elected by the residents as the decision makers that establish Township policy. The Board of Supervisors is responsible for the appointment of all the various Township boards and commissions as well as the hiring of key administrative staff and consultants.

Boards & Commissions

Several boards and commissions were established in the Township, each charged with specific tasks that culminate in recommendations to the Board of Supervisors. The boards and commissions include: an 8 member Planning Commission; a 10 member Parks & Recreation Board, with liaisons to the Downingtown Area Recreation Consortium (DARC) and the Lionville Youth Association (LYA); a 16 member Historical Commission; a 5 member Municipal Authority with recording secretary; a 3 member Zoning Hearing Board, 1 alternate and solicitor; a 3 member Board of Auditors; a 6 member Industrial Development Authority with solicitor and recording secretary; a 9 member Traffic Impact Committee; a 3 member Codes Appeal Board; a Vacancy Board; a 5 member Environmental Advisory Council was established in April 2018; an Emergency Operations Center that varies in the number of members; a Downingtown Area Regional Authority (DARA) representative; and a Downingtown Regional Planning Group Representative.

Administration & Codes

The Township Manager heads the municipal administration consisting of 23 full and 4 part-time employees involving the following section heads and departments: Assistant Township Manager, Township Secretary/Administrative Supervisor; Treasurer; 3 person Finance Department; Building & Zoning Officer, 1 Assistant Zoning Officer, and 1 Assistant Building Inspector; 11 person Public Works Department that includes a Road Superintendent and 7 person road crew; 5 person Parks Department; Sanitation Superintendent and 2 person staff; Fire Marshal and 2 Assistant Fire Marshals; Emergency Services Director; 2 part-time Administrative Assistant/Utility Billing Clerks; 1 part-time Administrative Assistant; and 1 part-time Accountant.

UTILITIES AND SERVICES

Water Service

Aqua Pennsylvania Water Company (AquaPA) presently serves the developed area of the Township. Over 90% of the dwellings and all of the businesses within the Township are served by public water. The Township works closely with AquaPA to ensure that adequate water service is available to existing and future Township residents and businesses.

Sewer Service

Over 95% of the Township is served by public sewer. The public sewage facilities in the Township are operated and maintained by either the Uwchlan Township Municipal Authority (UTMA) or DARA. Sewage generated by the Township is treated at two facilities: the DARA treatment plant and the Eagleview Wastewater Treatment Plant (WTP). DARA's treatment plant provides wastewater treatment for the majority of the southern and central portions of the Township with public sewer. The Eagleview WTP, which was dedicated to UTMA in 2007, provides service to the Eagleview Corporate Center and surrounding areas and currently treats 0.199 MGD as per the approved Township Act 537 Plan.

Completed in 1973, the Downingtown Regional Water Pollution Control Center provides sewage treatment for the Borough of Downingtown and East Caln, Caln, West Whiteland and Uwchlan Townships. The plant is located in East Caln Township along the Brandywine Creek. The operation of the treatment facility is under the control of DARA. Each of the member municipalities appoints one member to the DARA Board. Uwchlan Township currently has a treatment facility capacity allocation of 1.61 MGD.

Less than five percent of Uwchlan's population is served by on-lot sewage disposal systems. The largest portion of the Township not currently served by public sewers is located north of the Turnpike and west of PA Route 113. Areas not served by public wastewater treatment systems must rely on on-site sewage disposal, usually in the form of a septic tank and drain field. Areas outside sewer service areas typically require larger lots to accommodate area for the necessary separation

between the well, if public water is not available, and primary and back-up septic drain field. As a result, density is lower in these areas.

Solid Waste Disposal

The Township contracts with a private contractor, Eagle Disposal, to provide trash and recyclables collection throughout the Township. Yard waste pick-up is also provided in the Township.

Stormwater Drainage

As development continues to occur within Uwchlan Township and areas adjacent to it, problems resulting from stormwater runoff from ongoing development may increase. The Township's existing Stormwater Management Ordinance includes detailed requirements for the control and reduction of stormwater, including Best Management Practices (BMP) to maintain and/or improve water quality. The Township plans to begin the preparation of a Shamona Creek Watershed Plan in coordination with Pennsylvania Department of Environmental Protection (PADEP) relative to stormwater management. The Township implemented the PADEP Municipal Separate Storm Sewer (MS4) Program per Act 167 by enacting Ordinance 2013-07 that amended Chapter 214, Stormwater Management, of the Township Code. The following purpose statements summarize document:

- Reduce the frequency and magnitude of flooding and stormwater impacts affecting people, property, infrastructure and public services.
- Sustain or improve the natural hydrologic characteristics and water quality of groundwater and surfacewaters.
- Protect natural resources, including riparian and aquatic living resources and habitats.
- Maintain the natural hydrologic regime of land development sites and their receiving watersheds.
- Minimize land disturbance and protect and incorporate natural hydrologic features, drainage patterns, infiltration, and flow conditions within land development site designs.
- Reduce and minimize the volume of stormwater generated and manage and release stormwater as close to the source of runoff as possible.
- Provide infiltration and maintain natural groundwater recharge to protect groundwater supplies and stream baseflows, prevent degradation of surface water and groundwater quality, and to otherwise protect water resources.
- Reduce stormwater pollutant loads to protect and improve the chemical, physical, and biological quality of ground and surface waters.
- Reduce scour, erosion and sedimentation of stream channels.
- Reduce flooding impacts and preserve and restore the natural flood-carrying capacity of streams and their floodplains.
- Protect adjacent and downgradient lands from adverse impacts of direct stormwater discharges.
- Minimize impervious surfaces and connected impervious surfaces to promote infiltration and reduce the volume and impacts of stormwater runoff.
- Provide proper long-term operation and maintenance of all permanent stormwater management facilities, BMPs and conveyances that are implemented within the municipality.
- Reduce the impacts of runoff from existing developed land undergoing redevelopment while encouraging new development and redevelopment in urban areas and areas designated for growth.
- Implement an illicit discharge detection and elimination program that addresses non-stormwater discharges.
- Provide performance standards and design criteria based on watershed-based stormwater management planning.
- Provide standards to meet certain NPDES stormwater permit requirements.
- Meet legal water quality requirements under state law, including regulations at 25 Pa. Code Chapter 93, to protect, maintain, reclaim and restore the existing and designated uses of the Waters of the Commonwealth.
- Implement the requirements of total maximum daily load (TMDLs) where applicable to waters within or impacted by the municipality.
- Provide review procedures and performance standards for stormwater planning and management.
- Fulfill the purpose and requirements of PA Act 167 (PA Act 167, Section 3)

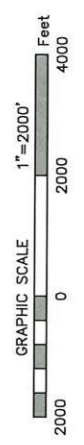
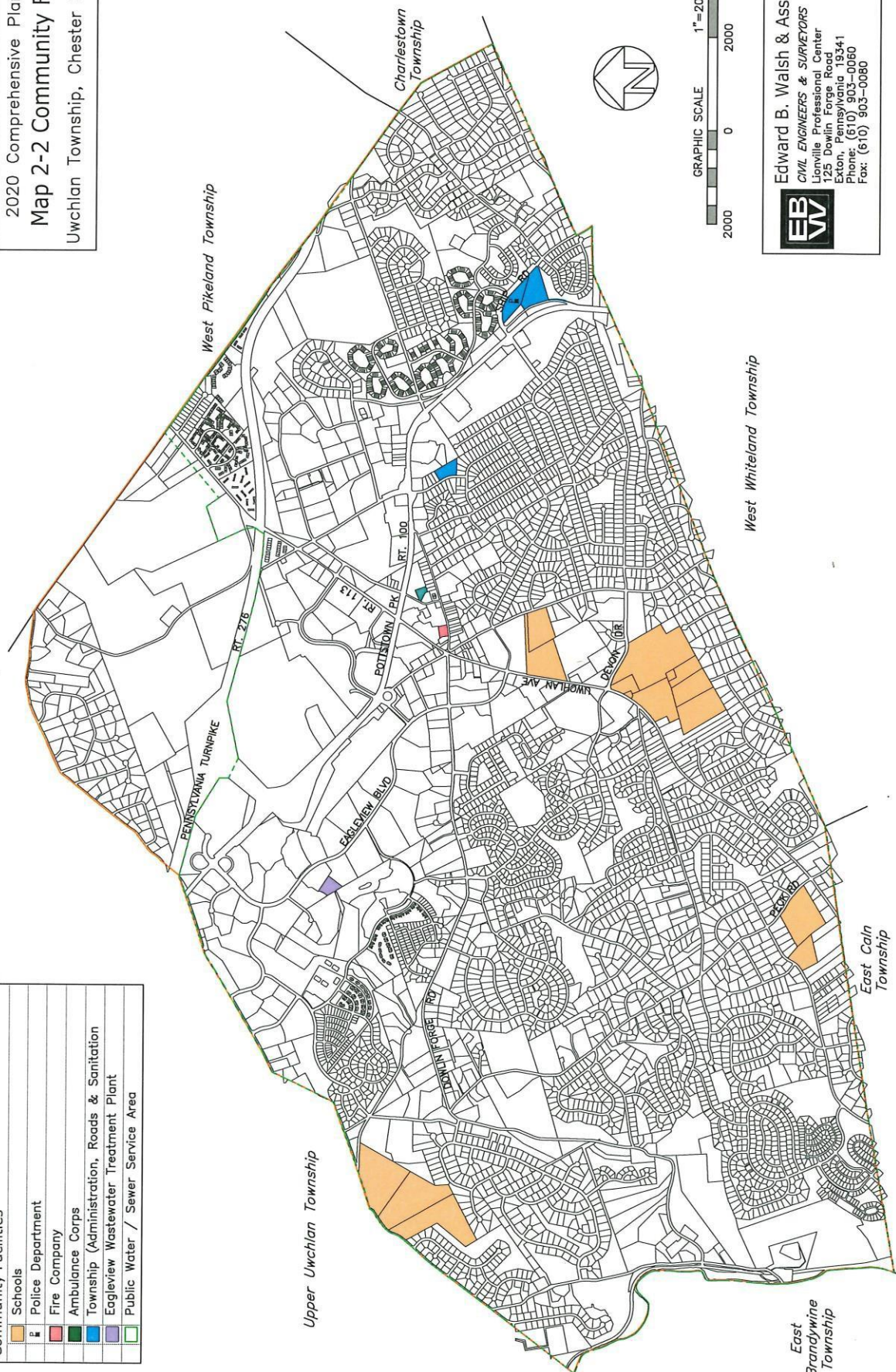
Other Utilities

In addition to public water and sewer facilities, several other utilities serve the Township. Philadelphia Electric Company (PECO) provides electric and natural gas service. Verizon and Comcast provide telephone service, and cable TV service is provided to portions of the Township also by Comcast and Verizon.

2020 Comprehensive Plan Update
Map 2-2 Community Facilities
 Uwchlan Township, Chester County, PA

Legend

Community Facilities	
	Schools
	Police Department
	Fire Company
	Ambulance Corps
	Township (Administration, Roads & Sanitation)
	Eggleview Wastewater Treatment Plant
	Public Water / Sewer Service Area




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Map 2-2
Community Facilities (back)

PARKS, RECREATION & OPEN SPACE,

RECREATION: ACTIVE & PASSIVE

Recreation involves the pursuit of leisure activities for the purposes of enjoyment, relaxation, exercise, or other diversion from routine commitments. The quest for recreation may include the desire for a special mood derived from the surroundings; contemplation of a view; solitude of the woods; relaxation around water; or the exertion, excitement and competition on a playing field. Recreation need not be permanent or bound to any particular site or facility. Recreational activity may be formally organized or programmed or it may be spontaneous and molded by initiative or group consensus.

Passive recreation usually involves low intensity recreation by individuals or small groups in natural surroundings. Activities such as hiking, picnicking or nature study are considered passive recreation. Only minimal site preparation and little, if any, structural facilities are required to accommodate most passive recreational activities. Lands constrained from development for environmental reasons are often suited to passive recreation.

Active recreation involves activities which are relatively intensive, both in terms of participation and in use of the land or facility where the activities take place. Active recreation is generally associated with specific facilities such as soccer fields, tennis courts, and the like. It tends to be group-oriented, demanding some form of organizational structure. It frequently requires some knowledge or skill for adequate participation.

OPEN SPACE

In the broadest terms, open space is that area that is not occupied by buildings. Open space enhances building clusters and neighborhoods, separating and connecting them in some relationship. The arrangement and character of this relationship defines the identity, mood, and character of the community and stimulates some kind of emotional response or experience.

The open space character is perceived primarily in a visual context. A variety of landscapes contribute to it, ranging from wooded stream valleys, to hedgerows, woodlots, open yard areas and existing recreational and institutional tracts. These open space areas offer aesthetic and psychological benefits even if physical access is not permitted.

Some open space areas serve important environmental functions. These include floodplains, wetlands, riparian buffers, steep slopes and woodlands. These areas are not only unsuitable for development due to potential hazards, they are also appropriately constrained from development to promote the retention of floodwaters and prevent erosion. Maintained in a natural state, they offer habitat for a variety of flora and fauna as well. Lands that are left open for environmental reasons often provide opportunities for passive recreational activity including hiking, fishing, and nature study.

Certain areas or sites are kept in open space to preserve their unique or special natural, historic, or cultural qualities. Other open space areas are specifically designated, designed or developed for recreational uses, including playfields, courts and picnic areas. Buildings or structures may be included to accommodate further recreational activity and programs.

BACKGROUND INFORMATION

Parks and Recreation Board

In Uwchlan Township, park and recreation issues fall under the purview of the Parks and Recreation Board, established by ordinance January 9, 1967 "to equip, supervise, operate and maintain parks, recreation areas and facilities, and to conduct recreation programs." The Board is comprised of nine members, who are appointed by the Board of Supervisors. The arrangement has worked well to promote cooperation and coordination between the Township and the School District and has facilitated extensive joint use of facilities and programming resources. A wide variety of recreational programs has been and will continue to be offered. The Township Administrative Supervisor is in charge of maintenance of parks and recreation lands and facilities. Extra personnel are hired in the summer in response to greater groundskeeping needs and to oversee seasonally expanded programs.

In addition to the nine-member Park and Recreation Board, who meet every month, Uwchlan also participates in the Downingtown Area Recreation Consortium (DARC), the administration and program of which are detailed later.

INVENTORY OF EXISTING RECREATION & OPEN SPACE CONDITIONS

Lands & Facilities

Uwchlan has a well-established and diverse parks and open space network with almost 400 acres available to Township residents. From its first public acquisition of ground in the 1970s to its completion of the Target Park in 2009, the Township has continued to provide its residents with active recreational facilities, while also preserving environmentally sensitive ground for passive recreation or open space. This policy is consistent with the County goals of preserving open space while also providing recreational use on such land. The Township continues to implement its primary goal of open space preservation either by acquiring sites or requiring their preservation as open space with new development. Development activity between 1999 and the 2010 Plan created 96.7 acres of open space and recreation land; these developments include: Eagleview, developed an additional 134.2 acres of mixed uses with 463 residential units and 59.9 acres of open space and recreation; the Ridings, a 95-lot single family development with 23.0 acres of open space and recreation; and Windham, a 55-lot single family development with 15.3 acres of open space, of which 4.7 acres became Target Park. The recreation inventories and plan elements of the 2000 and 2010 Comprehensive Plans updated the Open Space and Recreation Plans of 1992 and 1999 and served as policy guides for parks, recreation, and open space within the Township. Actions items from the 2010 Plan Update that have been implemented since its adoption are as follows:

Parks, Recreation & Open Space – Land, Facilities & Programs, Short-Range Projects

- 8.2 acres of open space at Turnbury (formerly the Rossi property).
- Continued to work with DASD & LYA to coordinate the use and maintenance of their facilities in the Township and with DARC in providing recreation programs.

Parks, Recreation & Open Space – Walkways, Short-Range Projects. Completed the following segments, augmenting the existing 9 miles of the Uwchlan Trail/Walkway and 59 miles of sidewalks along Township streets with an additional 3 miles of trails/walkways and 0.6 mile of sidewalk along Windham Drive

- Pedestrian/bike trail along the north side of Sheree Blvd from Eagleview Blvd across PA Route 100 to PA Route 113.
- Pedestrian/bike trail along the west side of PA Route 100 from Rutgers Drive to Worthington Road.
- Pedestrian/bike trail along the east side of PA Route 100 from Worthington Road to Ship Road.
- Sidewalk along both sides of Windham Drive within Turnbury
- Participated in the planning effort for the East-West Bicycle & Facilities Trail with East and West Brandywine Townships.

Before conducting an analysis of the demand for open space and recreational areas within the Township, an investigation of the supply of existing recreational facilities was conducted. Map 2-3 depicts and Table 2-21 lists the locations within the Township where some form of active or passive recreation takes place. The facilities located at the sites are also noted on Table 2-21. There are three types of active/passive recreation lands in Uwchlan: publicly owned land (Township and County); quasi-public land (School District); and privately owned facilities such as the YMCA, Pennypacker Club, and development lands maintained by homeowners associations (HOA).

The public owned and maintained properties in Uwchlan comprise 394 acres (207 acres of parks) that are available for potential use by Township residents. The Township walkway network comprises 12 miles shown on Map 2-4. There are 1.5 miles of the Struble Trail in Uwchlan on 13 acres of land owned by the County that are also available for use by Township residents. Quasi-public and School District lands comprise 187 acres. The Marsh Creek Sixth Grade Center opened in the Fall of 2015 adjacent to Shamona Creek Elementary School on land already owned by the School District and is included in this Update. Privately owned facilities comprise 702 acres that are not available for use by all Township residents, unless they are residents of the development, members of the facility or owners of the property.

TABLE 2-21
EXISTING PARKS & OPEN SPACE

Township Parks – 206.68 acres

1. Acker Park: Located on Bauman Circle in the Marchwood Development, this 5.9-acre park (33-5J-300) has one tot lot, one basketball court, one baseball/soccer field, one pavilion with four picnic tables, and limited parking.
2. Baird Park: 10.0 acres (33-5-57.1) located on Ship Road at the Township Building, this is strictly a passive park with veterans/servicemen memorial, Township service recognition plaque, picnic tables surrounding the five stepping ponds in the rear of the property, walkway/trail, and parking.
3. Dowlin Forge Park: located on about 36.2 acres (33-3-4.43, 5, 17) of ground on both sides of Shelmire Road near its intersection with Welsh Ayres Way, this largely passive park has two pavilions with picnic tables overlooking a small pond. A connection to the Struble Trail is available here with limited parking.
4. Eagleview Park: Three separate park parcels: 1.37 acres (po 33-4-464) located on the north side of Wharton west Hidden Farm Drive consisting of three tennis courts, one basketball court, and two volleyball courts; 6.55 acres (33-4-472) located on the south side of Wharton across from Hidden Farm Drive consisting of two adult softball fields, one little league baseball field, one tot lot, one pavilion, open play area, and parking; and 6.13 acres (33-4-470) located on the west side of Wharton between the Villas and Claremont consisting of two soccer/lacrosse fields, one tot lot, one pavilion, and parking.
5. Jones Pond: This scenic passive park consists of 16.9 acres located on Dowlin Forge Road adjacent to the Shamona Creek and Uwchlan Trail. The park has a pavilion, gazebo, picnic tables, and benches overlooking Jones Pond. Parking is limited.
6. Lionville Park: Located off of Devon Drive, this 24.03-acre park (33-4-110, 110.1, 110.2 110.3) contains five baseball fields, three soccer/lacrosse fields as well as a large pavilion with picnic tables, two grills, one tot lot, batting cages, a snack bar, and parking.
7. Martin Memorial Park: This 14.8 acre tract (33-4K-273) is located within the Seasons and the Ridings with entrances off of Laurel Moors Drive and Charles Drive, includes one baseball field, one multi-purpose field for soccer/lacrosse and baseball, one basketball court, one tot lot, one pavilion with two picnic tables and a fireplace, and parking.
8. Ridings: 8.6 acres (33-4-71.95) located off Charles Drive that contains parking and handicapped accessible walkway connection to Martin Park.
9. Shamona Creek Parks: Located on 37.0 acres (33-3-31.1) immediately adjacent to the Brookwood subdivision, abutting Peck and Dowlin Forge Roads, and has been divided into two separate parks, Shamona Main and Shamona Peck.
Shamona Main: (Dowlin Forge Road entrance) is one of the Township's largest parks and has access to the Uwchlan Trail. Facilities include one baseball field, one basketball court, two volleyball courts, one tot lot, one pavilion with three tables and two grills
Shamona Peck: (Peck Road entrance) although smaller than Shamona Main, has one baseball field, one tot lot, one pavilion with tables, and parking.
10. Spring Run Park: Located in the Arbordayle subdivision, its entrance is adjacent to 253 Spring Run Lane. This 17.2-acre parcel (33-4J-149.1) includes one multi-purpose field for soccer/lacrosse use, one basketball court incorporated into the parking area, one tot lot, one pavilion with picnic tables, and freestanding picnic tables.
11. Target Park: Located on Dowling Forge Road adjacent to the Windham subdivision, this 4.7-acre park (33-4-531) includes one large multi-purpose field for soccer/lacrosse use, one basketball court, one tot lot, one pavilion, picnic facilities, parking, and walkway around the periphery.
12. Williamsburg Park: This 17.3-acre park (33-6-95, 97) within the Williamsburg Development abuts the Young property and facilities include one multi-purpose baseball/soccer field, one tot lot, and a walkway connection to the Struble Trail is provided elsewhere in the development.
13. Uwchlan Walkways: The current walkway length totals approximately 12 miles. Phase 1 of 2.2 miles, completed in 2000-2001, created two segments: the longest of 1.7 miles being from the Struble Trail to Pennypacker Swim Club along Dowlin Forge Road; and another segment of 0.5 mile along Dowlin Forge from Fairweather Drive to Eagleview Boulevard. Also, in 2001, Eagleview reconstruction along Rice and Pennsylvania Avenue and Eagleview Boulevard to Dowlin Forge Road totaling 2.8 miles; 2004-2006

saw the construction and completion of walkway along PA Route 113 as part of the widening and bridge work for an additional 0.7 mile. Phase 2 of the Township walkway development completed the following during 2003-2005: Ship Road through the Township property to the border with West Whiteland for 0.7 mile and a 0.6-mile segment into the County property within West Whiteland; and along Pickering Drive, Welsh Pool Road, Gordon Drive, and Sheree Boulevard totaling 1.2 miles. The walkway within Rhondda totals 1.2 miles. As noted above, another connection of 0.2 mile was implemented to the Struble Trail from Williamsburg. Phase 3 of the Township walkway development created the following segments between 2010 and 2017: Sheree Boulevard from Eagleview Boulevard across PA Route 100 to PA Route 113 totaling 0.8 mile; Pa Route 100 (westside) from Rutgers Drive to Worthington Road totaling 0.4 mile; and PA Route 100 (eastside) from Worthington Road to Ship Road totaling 0.5 mile.

Open Space – 842.4 acres (187.0 Township, 559.4 HOA, 96.0 conservation)

1. Arbordayle: 4.8 acres (33-4J-149) of open space owned and maintained by the HOA, while Township owns park area along stream corridor discussed above. In addition to the recreation facilities discussed under Township Parks this space contains two retention basins, and approximately 1/3 of park area is flood plain, wetlands and wooded area traversed by a stream while smaller open field area is in center of development.
2. Ashbridge: 23.4 acres (33-4N-83, 7A-147, 7A-148) of open space. HOA owns and maintains the three non-contiguous parcels, two of which contain retention basins, one has a walking path. All three parcels are rather heavily wooded with one being traversed by a stream and containing the accompanying flood plain and wetlands.
3. Brookwood: 14.1 acres of open space. Township owned and HOA maintained. Two parcels makeup the open space with both containing retention basins, both being rather steep, heavily wooded and the piece near Dowlin Forge Road containing the entrance drive to the southern portion of Shamona Park.
4. Century Oaks: 7.4 acres of open space. HOA owned and maintained. Space in 2 parcels both heavily wooded, one containing a retention basin, and one having a walking path.
5. Eagleview, Residential: 88.2 acres of open space. The HOA own and maintain the several separate areas that include: two parcels on either side of Deep Willow Drive at Dowlin Forge Road totaling 1.58 acre (os-b & c) comprise a passive, landscaped entrance; a 5.15 acre (po os-A) parcel located at the southwest corner of the Deep Willow Drive and Wharton Boulevard consisting of a natural area with structure, pond, woods, and wetlands; a 1.76 acre (os-k) parcel located at the southeast corner of the Deep Willow Drive and Wharton Boulevard consisting of a natural area with woods, wetlands, and pipeline; 1.77 acres (os-o) situated south of the Township’s ballfields with an access strip to Dowlin Forge Road consisting of a natural area with woods, wetlands, and pipeline; 23.91 acres (os-d) located between the Claremont Apartments containing open, natural area comprised of a pond, streams, wetlands, and woods; Claremont Apartments contain three separate greens totaling 0.68 acre; one with gazebo and walkway and one with a pavilion. A 1.19 acre (os-e) parcel is located between Wharton Boulevards East and West with a gazebo and walkways; Claremont Village has three separate parcels, one 0.45 acre (os-m & n) green at Mahoney and Braceland Drives, one 5.08 acre (os-f) green with walkways between the townhouse and singles, and a 3.94 acre (os-h) parcel located west of the Ferncastle Drive consisting of a natural area with woods, wetlands, and pipeline; the Villas contains a 0.42 acre (po os-g) parcel with gazebo and walkway and residual area of 10.42 acres (balance of os-g); the 1.87 acre Town Center green that contains a concert area, gazebo, garden area, tree alley, and walkways; the 6.89 acre parcel behind Wellington Condos that contains, streams, wetlands, woods; and the four peripheral parcels and internal pipeline parcel of the Gardens that total 23.1 acres and contain a stream, floodplain wetlands, woods, and pipeline (os-i & others).
6. Eagleview, Commercial: 27.5 acres of open space consisting of ponds, floodplain, wetlands and woods.
7. Foxcroft: 14.2 acres of open space. HOA owned and maintained this space is spread out all over development. The space contains 2 retention basins, is heavily wooded for the most part and contains one area of steep slopes.
8. Greenbriar: 41.3 acres of open space. HOA owned and maintained this space is made up of 3 parcels containing 4 retention basins. The two smaller areas are lightly wooded while the largest piece contains heavy woods, steep slopes with rock outcroppings.
9. Hoffmanor: 7 acres of open space with the Township owning 2.2 acres and the HOA owning 4.8 acres. The space is basically a natural area.

10. Inslee Acquisition: These 38.9 acres, owned by the Township, include the restored Dowlin Forge and are located along the Struble Trail, near the intersection with Dowlin Forge Road, and preserve a large portion of open space. The property consists of steep slopes, wetlands, and mature timber stands that provide a habitat for wildlife.
11. Jefferson Grove: 4.9 acres of open space owned and maintained by the HOA consisting of a detention basin and woods.
12. Jones Acquisition: 16.9 acres of open space owned by the Township, included and described in parks above.
13. Liongate: 22 acres of open space. HOA owned and maintained, the space contains a stocked pond/retention basin; only a small portion of the space abutting the Turnpike is naturally wooded. Recreation is described below.
14. Martin Farm: 15 acres of open space owned and maintained by the Township described above. In addition to the recreation facilities discussed under Township Parks this space contains two retention basins, one being a permanent stocked pond, steep slope, flood plain, wetlands, and parking area linked to the park by a suspended wooden walkway over the wetlands.
15. Matthews Farm: These 93 acres of farmland was preserved jointly between the Township and County through a purchase of development rights program.
16. Meredith: 3.5 acres of open space. HOA owned and maintained containing a retention basin and some wetland areas produced by a springhouse. The open space wraps around the original farmhouse and provides for original open view toward roadway through old pasture area.
17. Natural Lands Trust: 3.0 acres of natural area located south of Dorlan Mill Road at the north end of the Struble Trail.
18. Newman: 4.5 acres of open space abutting Martin Park. The Township owns 1.7 acres that serves as a buffer to Martin park and the HOA owns 2.8 acres that consists of a pond and wetlands.
19. Newcomen: 19 acres of Township owned woodlands and passive open space on Newcomen Road, purchased in 1994.
20. Pine Creek Valley: 10.7 acres of open space. HOA owned and maintained containing 2 retention basins. The narrow parcels that make up the open space are all tied together with blacktop walk paths that crisscross the development through open and wooded areas. Some flood plain and wetland areas are present on the northern tip of the space.
21. Plank: 2.2 acres of open space abutting Meredith open space. HOA owned and maintained. It contains a small retention basin and a small area of wetlands, being for the most part open field areas with few trees.
22. Rhonda: 78.4 acres of open space HOA owned and maintained. Blacktop walk paths connect the numerous parcels of open space, containing several retention basins, wet ponds, and open mowed field area. A small stream emanating on site traverses the large section of open space. The space is basically mowed grass areas with only a small section being wooded and in a natural state.
23. Ridings: 14.5 acres of open space. HOA owns and maintains the four non-contiguous parcels; one contains retention basins, and is rather heavily wooded with some wetlands, the other three function as frontage buffers.
24. Shamona Ridge: 44.8 acres of open space with the Township owning and maintaining the 22.7-acre southernmost parcel, with the other small parcel containing a retention basin being owned by the HOA. The parcel owned by the Township makes up the bulk of Dowlin Forge Park which contains a large pond, pavilions with picnic facilities, jogging paths that link with the Struble Trail to form a ½ mile loop and a natural amphitheater. The jogging trail also provides for a handicapped entrance to the Struble Trail with adequate parking facilities. This section is also very heavily wooded and contains some flood plain, wetlands, and a small stream corridor bisecting it.
25. Turnbury: 8.21 acres of open space owned and maintained by the HOA, containing a retention basin, natural area with woods, a pond, stream and associated wetlands, and cul-de-sac turnaround.
26. Uwchlan Hunt: 27.3 acres of open space owned and maintained by the HOA, containing one large retention basin, a large natural area of undisturbed wetlands, some open field area and one large area of steep slope and mature woodlands all adjoining Dowlin Forge Park.

27. Uwchlan Springs: 2.8 acres of open space. HOA owns and maintains the parcel which is a passive, landscaped natural area with a detention basin.
28. Weaver Pond: 24.2 acres of open space owned and maintained by the HOA comprised of a strip of land around the entire development and a large internal section that contains a retention basin, an existing old farm pond, some steep slope area with mature woodland growth. The open space strip that fronts along Route 113 and the western development border contains large rolling man-made berms with mixed plantings.
29. Whitebriar: 16.4 acres of open space owned and maintained by the HOA, containing 2 retention basins, a small stream, some wetlands, one small sparsely wooded area, and is connected to open space areas to the south that abut Dowlin Forge Park.
30. Welsh Ayres I: 17.2 acres (33-3-19.41, 182, 183, 184, 264, 265) of open space owned and maintained by the HOA, containing three retention basins, with a mix of open field area, mature woodlands, and wetland areas, adjacent to Shamona Park.
31. Williamsburg: 59.1 acres of open space mostly owned and maintained by the HOA, but the active recreation area is under ownership and maintenance of the Township. The HOA portion contains a retention basin, some steep slopes, some wooded areas, and a wetland area with stream. The development area has been connected to the Struble Trail by a macadam pathway that goes through the Young Acquisition.
32. Windham: 10.63 acres (33-4-530, 532, 533, 534) of open space. HOA owned and maintained. Space in three parcels, one heavily vegetated containing a retention basin and the other two parcels are passive, landscaped natural areas.
33. Woodlark: 20.9 acres of open space owned and maintained by the HOA containing a 2-acre stocked pond/retention facility, a stream, wetland areas and undisturbed natural growth.
34. Young Acquisition: This 79.2-acre parcel, located along the Brandywine Creek and Dowlin Forge Road, is a cornerstone of Uwchlan's efforts to preserve a large portion of the ground in the western section of the Township abutting the Brandywine Creek. Like the Inlee tract, this property contains steep slopes, wetlands, and mature timber stands as wildlife habitat.

County Facilities – 12.5 acres

1. Struble Trail: 12.5 acres containing a 1.5-mile multi-purpose biking and pedestrian trail along the East Branch of the Brandywine Creek the entire length of the Township providing connection the Downingtown Borough.

School District Facilities – 186.8 acres

1. Downingtown East High School: 66.9 acres (33-4-101, 102, 103, 104, 107, 108.1, 109) containing four soccer/lacrosse fields, two field hockey fields, two football fields, one baseball field, one softball field, seven tennis courts, two band practice fields, one running track and cross country course, and one gymnasium.
2. Lionville Middle School: 22.2 acres (33-4-111.1, 112) containing two baseball fields, two softball fields, one football field, one soccer, one soccer/lacrosse field, three field hockey/lacrosse fields, , and one gymnasium. All but two of the fields are located within Lionville Park, which are in addition to the four LYA baseball fields and two basketball courts. The two LYA soccer/lacrosse fields are part of the aforementioned school fields.
3. Marsh Creek 6th Grade Center: 63.28 acres (33-3-21.5) containing one multi-purpose field, one gymnasium, and walkway/trail connection to the network within Welsh Ayres.
4. Lionville Elementary School: 12.2 acres (33-4-108) containing one soccer field, one informal playfield, one playground, and one gymnasium.
5. Shamona Creek Elementary School: located on same 63.28 acres as Marsh Creek 6th Grade Center, containing three soccer fields, one informal playfield, one playground, and one gymnasium.
6. Uwchlan Hills Elementary School: 22.2 acres (33-7-39, 7A-30) containing two baseball fields, one informal playfield, one playground, and one gymnasium.

Other Private Recreation – 46.5 acres

1. Aspenwood Recreation Area: 0.7 acre containing a swimming pool and picnic tables.
2. Eagleview YMCA: 2.8 acres within Eagleview Town Center containing racquetball courts, exercise equipment, and daycare/preschool.
3. Eagleview, Claremont Apartments: 0.4 acre containing a swimming pool and community building.
4. Eagleview, Claremont Village: 1.4 acre containing a swimming pool, community building, and parking.
5. Eagleview, Gardens: 1.8 acres containing a swimming pool, community building, two tennis courts, and parking.
6. Liongate Recreation Area: within the 22 acres of open space described above containing one basketball court, three tot lots, one swimming pool, and community meeting center.
7. Lionville YMCA: 8.7 acres containing an indoor swimming pool, outdoor swimming pool, and basketball court.
8. Marchwood Apartments Recreation Area: 3.7 acres containing a swimming pool.
9. Pennypacker Club: 15.8 acres which contains 2 swimming pools, a 2 acre pond, 9 tennis courts, and picnic areas.
10. Pickering Pointe Recreation Area: 9.7 acres of open space that contains a playground, gazebo, jogging trail, and picnic tables.
11. Rhondda Recreation Area: within the 78.4 acres of open space described above containing a community center basketball court, tennis courts, tot lot, and swimming pool.
12. Severgn Apartments Recreation Area: 0.5 acre containing a swimming pool.
13. Village Walk Recreation Area: 0.5 acre containing a swimming pool.
14. Williamsburg Recreation Area: 0.5 acre containing a swimming pool and clubhouse.

Recreation Programs

Uwchlan residents participate in a variety of recreational programs; including arts and crafts, athletics, music and dance, social activities, drama, and nature activities. Generally, active programming occurs within the Township, and is sponsored by the Downingtown Area School District (DASD), Lionville Youth Association (LYA), YMCA, or the Township. Outside of the Township facilities, residents utilize private, quasi-public and public facilities and programming agencies, relying particularly on the Downingtown Recreation Consortium (DARC), DASD and on private clubs. Youth athletics are offered by LYA.

Uwchlan is in an envious position with regard to youth athletic programs offered to its residents. The LYA offers seven sports for kids ages 6 to 18. The participation in LYA during the Spring of 2009 was projected at 1,900 registrants of which 1,200 are from Uwchlan. There are few, if any, youth recreation programs that provide such a variety within Chester County. The commitment of the 550 LYA volunteers is demonstrated by the 180,000 hours given to the operation and support of the programs. LYA has grown from the 6 team Lionville Little League in 1965 to the 250 plus team multi-sport league it is today. LYA also provides an 8-week summer camp program. The LYA programs are listed in Table 2-22, expanding over the years as follows:

- | | |
|--|---|
| 1970 - Received Little League Charter; | 1996 – Indoor lacrosse offered; |
| 1971 - Introduced girls’ softball; | 1999 – Introduced 5-year old co-ed soccer; |
| 1972 - Incorporated as LYA; | 1999 – Soccer celebrated 25 th Anniversary; |
| 1974 - Introduced soccer 9 and older; | 2000 – Little League celebrated 30 th Anniversary; |
| 1974 - Introduced basketball; | 2001 – Summer camps added cheerleading; |
| 1975 - Wrestling began; | 2003 – Soccer celebrated 30 th Anniversary; |

1982 - Girls' field hockey started; 2004 – Summer camps celebrate 10th Anniversary;
1991 – Boys' & Girls' lacrosse started; 2006 – Wrestling tournament celebrates 30th Anniversary
1991 - Fall Baseball offered; 2007 – Little League celebrated 37th Anniversary for
baseball/softball; 1992 – Summer camps offered; 2009 – As of March, 1,600 children participate in LYA sports.

LYA also serves Upper Uwchlan, West Pikeland and portions of East Caln Townships. Together with Uwchlan and the other Townships, LYA has continued a comprehensive plan for facility development. Uwchlan Township essentially provides the playing fields and routine maintenance, while LYA provides the programs that vary from the novice to advanced participant. For eight parks, LYA partners with fencing costs, storage boxes, goals, and bases to augment the Township's maintenance role. In Lionville Park, LYA completely maintains its three little league fields, cuts the grass on all fields it uses for its programs when needed.

TABLE 2-22
RECREATION PROGRAMS AVAILABLE TO TOWNSHIP RESIDENTS

Quasi-Public Recreation Facilities			
YMCA's: 2 serve Uwchlan			
Lionville		Eagleview	
1 swimming pool (outdoor) 1 basketball court	1 swimming pool (indoor)	racquetball courts preschool	fitness center
Regional/Subregional Parks:			
Marsh Creek State Park			
<ul style="list-style-type: none"> Facilities: water & trail-related; boating, swimming, fishing, camping, hiking Programs include nature study & environmental education. 			
Downtown School District Programs			
Downtown East High School		Lionville Middle School	
Fields used by LYA	Courts used by LYA	Adult School; Summer teen program.	Fields and gym used by LYA;
Lionville Elementary School		Shamona Creek Elementary School	
Summer activities for K-5; Scout use;	After school intramural program; Fields used by LYA	Summer activities for K-5; Scout use;	After school intramural program; Fields used by LYA
Uwchlan Hills Elementary School		Marsh Creek 6 th Grade Center	
Summer activities for K-5; Scout use;	After school intramural program; Fields used by LYA.	Summer activities for 6;	After school intramural program;
Athletic Leagues –Lionville Youth Association (LYA)			
Baseball (boys ages 4 to 18): Spring		Softball (girls ages 4 to 18): Spring	
<ul style="list-style-type: none"> Little League organized into 8 divisions based upon age & skill level, intramural/travel (ages: 4-5, 6-7, 8-9, 10-12, 13-14, 15-16, 17-18). Use 11 fields: Acker, Eagleview, Lionville, Shamona-Main, Shamona-Peck, Williamsburg; DEHS, Lionville & Uwchlan Hills ES. 		<ul style="list-style-type: none"> Organized into 7 divisions based upon age & skill level, intramural/travel (ages: 4-6, 7-8, 9-10, 11-12, 13-14, 15-16, 17-18). Use 5 fields: Lionville, Shamona-Peck; DEHS, Williamsburg. 	
Baseball (boys ages 4 to 18): Fall		Softball (girls ages 7 to 16): Fall	
<ul style="list-style-type: none"> Organized into 4 divisions based upon age & skill level, intramural (ages: 9-10, 11-12, 13-14, 15-16). Use 5 fields: Acker, Lionville, Shamona-Peck, Williamsburg, DEHS. 		<ul style="list-style-type: none"> Organized into 5 divisions based upon age & skill level, intramural (ages: 7-8, 9-10, 11-12, 13-14, 15-16). Use 3 fields: Lionville, Shamona-Peck, DEHS. 	
Soccer (boys ages 6-18): Fall		Soccer (girls ages 6-18): Fall	
<ul style="list-style-type: none"> Organized into 4 divisions, intramural/travel teams (U6, U8, U10, U12). Use 16 fields: Acker, Eagleview, Shamona-Main, Shamona-Peck, Spring Run, Lower Pine Creek. 		<ul style="list-style-type: none"> Organized into 4 divisions, intramural/travel teams (U6, U8, U10, U12). Use 16 fields: Acker, Eagleview, Shamona-Main, Shamona-Peck, Spring Run, Lower Pine Creek. 	
Lacrosse (boys 7-14): Spring		Lacrosse (girls grades K-8): Spring	
<ul style="list-style-type: none"> Organized into 4 divisions (ages: 8U, 10U, 12U, 14U). Use 5 fields: Lionville, Spring Run, Target, Pine Creek; Lionville MS. 		<ul style="list-style-type: none"> Organized into 4 divisions (grades: K-2, 3-4, 5-6, 7-8). Use 9 fields: Lionville, Spring Run, Target, Pine Creek; Lionville MS. 	
Basketball (boys grades 2-12): Winter		Basketball (girls grades 2-8): Winter	
<ul style="list-style-type: none"> Organized into 5 divisions (grades: 2-3, 4, 5-6, 7-8, 9-12). Use DASD gyms. 		<ul style="list-style-type: none"> Organized into 3 divisions (grades: 2-3, 4-5, 6-8). Use DASD gyms. 	
Field Hockey (girls grades 1-8): Fall		Track & Field (boys & girls ages 9-18): Summer	
<ul style="list-style-type: none"> Organized into 4 divisions (grades: 1-2, 3-4, 5-6, 7-8). Use 9 fields: Eagleview, Lionville, Spring Run Parks; Lionville ES. 		<ul style="list-style-type: none"> Organized into 4 divisions (ages: 9-10, 11-12, 13-14, 15-16/17-18). Use DEHS track. 	

As previously discussed, Uwchlan participates within DARC, the Township in fact prepaid the \$20,000 for 2020 in 2019. A recreation director oversees the administrative program and personnel responsibilities. In addition to the director, DARC has two staff members and hires instructors and other staff on an as-needed program basis. A full range of programs are offered to Township residents. DARC offers nearly everything imaginable from a recreation perspective including senior citizen activities, trips to various cultural affairs, whitewater rafting trips, active recreational pursuits like co-ed, women's, and Fall co-ed softball, and basketball leagues, numerous educational courses on business, math, etc., and also programs for those interested in learning various arts and crafts skills. In addition, DARC offers summer half-day camps for ages 3½ through 11 and full day camps for ages 7 through 14. The events are opened to whomever wishes to participate. 2019

participation numbers for Uwchlan residents were 1,174, which was 23% of the overall participation. Tentative Township resident usage for 2019 (first 5 months) includes 268 registrants, 495 registrations, and 554 transactions for a total of \$52,502. The overall DARC participation numbers for 2019 were 5,056 of which all were from within the School District, except for Wallace as they withdrew. The program is rather heavily utilized by those in the region and even somewhat outside of the school district and is quite successful.

Township residents are served by the Downingtown Area Senior Center (DASC) located on Lancaster Avenue in neighboring East Clan. The DASC provides a wide range of services and activities to adults age 60 and older. From health and wellness programs to full course meals, the DASC provides service to more than 1,500 individuals per year. The DASC offers a variety of classes and clubs designed specifically for the promotion of seniors' mental health and wellness. ROVER, the County-wide service operated by Krapf, provides transportation to and from the Senior Center.

It has been noted that municipalities with populations similar to Uwchlan Township often assume a direct role in recreational programming, aiming to ensure that all sectors of the community are adequately served, including children, youth, adults, senior citizens, and handicapped individuals. Direct programming involvement by the Township, as outlined above, has been minimized through coordination and cooperation (formal and informal) with other public agencies (such as DARC), and with private and quasi-public agencies, including the schools, DASD, YMCA, and LYA. As can be seen by both the DARC information and that which follows regarding the YMCA and LYA, both genders and all age groups in the Township are adequately served by existing recreational programs. Both LYA and the YMCA are sound, growing programs.

The Township entered into a Shared Facilities Agreement with the Downingtown Area School District in 1995. The Shared Facilities Agreement allows Uwchlan, LYA, and YMCA first use of school facilities, both indoor and outdoor, after school activities are finished in return for school use of Township parks, particularly Lionville Park. The Shared Facilities Agreement has increased the use of the school facilities by making them available for use by Township residents.

Recreation Financing

The Township 2020 park and recreation budget is \$541,000 including park maintenance and administration. The key factor to be noted here is that money has been allocated and an effective and comprehensive park and recreation program has been established showing the commitment of the community for providing as many recreational opportunities as possible while also planning for and actually preserving environmentally sensitive ground through development plan reviews and through actual acquisition.

The Township's past, current and future financial policies are as follows:

- Provide for its recreational land and facility requirements through the development process;
- Provide financial support and facility use for both active and passive recreation programs (DARC and LYA); and
- Promote the joint use of the School District facilities through the Shared Facilities Agreement to minimize facility needs.

The following is a breakdown of the various 2020 municipal taxes/fees as they relate to Township residents and labor force: 0.12 Township millage; 27.182 DASD millage; 4.369 County millage; local services tax - \$52 (\$47 for Township, \$5 for DASD); real estate transfer tax - 1% of the purchase price on all real property (½% to the Township and a ½% to DASD); earned income tax 1% is withheld from anyone who either lives or works in the Township (½% to the Township and ½% to DASD); and trash & recycling fee - \$67 per quarter.

Park & Recreation Administration & Personnel

In addition to the ten-member Township Park and Recreation Board, who meet every other month, DARC has a full-time director and two staff members. This is in addition to the Township's 5-person staff, which is overseen on a daily basis by the Administrative Supervisor. The 4-person staff under the Administration Supervisor consists of 4 full-time (40 hours a week) positions and 1 part-time (40 hours a week from May to August) seasonal position. Table 2-23 essentially describes the duties of the 4 park and recreation employees from early Spring to Fall. During the remainder of the year, three of the full-time employees paint and refurbish equipment, pour molds for fence posts and perform other similar duties while

the other employee assists in performing fire marshal work.

The Township “Parks and Recreation Department” is adequately staffed to handle its current duties. The Administrative Supervisor utilizes staff from the roads department or sanitation department to fill in for vacations or if additional work is required during a particular week.

Meetings of the Township Park and Recreation Board are advertised and open to the public. Notices for programs or events are made within the newsletters of DARC, LYA, and the Township. In addition to performing administrative and operational duties related to the above programs and budgets, other activities conducted by the Township’s Park and Recreation Board include the following:

- The \$541,000 Park and Recreation budget noted above includes \$10,000 for the Annual Community Day, \$20,000 for DARC, and \$1,000 for LYA.

Park Maintenance

The maintenance activities and schedules common to each of the Township parks are set forth in Table 2-23. The maintenance activities outlined in Table 2-23 are the minimum effort for the applicable facility highlighted. Obviously, those parks without a particular facility may not need the stated maintenance activity. The Township’s current practice is to have all 4 employees work, one park at a time, until each park is completed. This approach results in each park receiving attention (mowing, trash, etc.) each week during Spring, Summer and early Fall. Depending on the dryness or wetness of the season, all parks can be mowed within a week. Any special maintenance activities such as grass cutting at a specified depth or lining fields beyond routine maintenance practices and the Township is reimbursed by organizations requesting such special maintenance.

The Township's major maintenance equipment consists of two 10½’ mowers, two 6’ zero-turn mowers, two walk-behind mowers, five weed whackers, one 4-wheel drive pick-up truck, and two one-ton 4-wheel drive dump trucks with attachments. The equipment is in good condition and is routinely serviced. The Township has an equipment replacement program.

TABLE 2-23
GENERAL PARK MAINTENANCE

Facilities	Maintenance Activity
Play Apparatus	<ul style="list-style-type: none"> – Check footing integrity each spring; – Tighten bolts; cover bolts/nuts to prevent injury; paint each spring as needed; check swing chains each Spring and periodically. – Check wooden equipment for splintering each spring; sand and soil as necessary; – Weed under equipment and install mulch each spring and as necessary.
Ballfields	<ul style="list-style-type: none"> – Weed infield and install diamond tex early Spring (LYA could assist); mow grass weekly/biweekly Spring through autumn; fertilize/lime each Autumn; top seed as necessary late Autumn.
Basketball/Tennis Courts	<ul style="list-style-type: none"> – Sweep to remove dirt/stones from court each Spring; periodic check and replacement of nets; patch and paint asphalt as needed.
Walkways	<ul style="list-style-type: none"> – Add wood mulch or gravel if necessary; patch or replace asphalt/concrete as necessary.
Grass	<ul style="list-style-type: none"> – Biweekly mowing from 4/1 to 10/15
Trees/Landscaping	<ul style="list-style-type: none"> – Pruning of trees and shrubs late winter, each Spring; removal of vines, etc. as needed Spring through Autumn
Streams	<ul style="list-style-type: none"> – Install plantings and rocks to hold banks; remove fallen trees and those leaning; install gabion walls along streams if scouring continues.
Parking Lots	<ul style="list-style-type: none"> – Sweep to remove dirt/stones as necessary. – Restripe lines as necessary and replace wheel stops as needed. – Patch or replace asphalt as needed.
Lighting	<ul style="list-style-type: none"> – Replacement of bulbs as needed and periodic maintenance.
Trash Removal	<ul style="list-style-type: none"> – Sponsor a park cleanup day for each facility early each Spring (LYA or Boy Scouts could assist). – Weekly emptying of trash receptacles and periodic policing of park grounds for litter.

Walkway Network

Walkways, pathways or trails offer a linear recreation and transportation resources as they provide a primary means of access to the broad open space landscape. When designed as multi-use trails they may accommodate pedestrian, equestrian, bicycle, and cross-country skiing use. Uwchlan's walkways accommodate walking, jogging, running, and biking. Walkways may be incorporated into park facilities and open space areas or may be independent, extending recreational opportunity beyond specifically designated park or open space areas. They can serve as links connecting various open space, park and recreation areas to each other and to the populace they serve. They need not be limited to public lands, but may also pass across private lands at the pleasure of the owners. They can be made permanent through public acquisitions or through establishment of easements. The County's Struble Trail is multi-use and follows the East Branch of the Brandywine along the western edge of the Township.

Uwchlan has established a 12-mile walkway network throughout the Township. This walkway network offers the opportunity to augment the system of non-motorized access ways linking open space and recreation resources, residential areas, and activity centers throughout the Township. The Williamsburg and Uwchlan Hunt developments are examples of a walkway network being incorporated into the open space network of the development. Approximately 60+ miles of sidewalks within developments and along some collector and local streets augment the Township walkway network. Map 2-4 shows the walkway network of Uwchlan. As noted earlier in this section, the Township implemented several short-range strategies of the 2010 Plan that resulted in 3 additional miles of pedestrian/bicycle trails along the following road segments:

- Sheree Blvd from Eagleview Blvd across PA Route 100 to PA Route 113;
- PA Route 100 from Rutgers Drive to Worthington Road; and
- PA Route 100 from Worthington Road to ShipRoad.

Uwchlan is currently participating in the planning effort for the East-West Bicycle & Facilities Trail with East and West Brandywine Townships.

Open Space Planning

The inventory of Township, quasi-public, and private open space is provided in Table 2-21. Maintenance of the open space, as applicable, is listed in Table 2-23. The open space planning and preservation actions since the 2010 Plan are listed below:

The definition of 'Common Open Space' was revised in Section 260-204 and Section 265-301.4 as part of the 2013 amendments to the SLDO and ZO, also implementing a short-range strategy outlined in the 2010 Plan Update, as follows:

Common Open Space: A parcel or parcels of land or an area of water, or a combination of land and water within a development site and designed and intended for the use or enjoyment of the public or of residents of the development. In the calculation of the area or proportion of a development site devoted to common open space, the following shall not be included:

- A. Areas within any lot, yard, or required setback;
- B. Areas within any public or private street or street right-of-way, sidewalk, driveway, parking area, or utility easement;
- C. Areas or portions thereof less than fifty (50) feet in width, unless part of a trail corridor or required buffer;
- D. Following exclusion of all areas not to be included as common open space and described in (a) through (c) above, contiguous areas less than 1/4 acre in area, unless acceptable and approved by the Township.

The common open space within a development site shall be designed and arranged so as to be conveniently accessible to all residences and all areas thereof shall be interconnected by a means of pedestrian access and circulation acceptable to the Board.

Common open space shall be free of structures other than those approved by the Board consistent with the provision of active and passive recreational opportunities together with vehicular access and parking as required in connection therewith. Only those stormwater management facilities designed so as to be consistent with the active or passive recreational purposes of the open space may be constructed within required common open space.

Common open space shall be the subject of recorded encumbrances in form and substance satisfactory to the Township Solicitor and sufficient to ensure that the purposes and restrictions with respect thereto are maintained in perpetuity which governing documents shall be recorded with the Recorder of Deeds in and for the County of

Chester prior to the first issuance of a building permit or the conveyances of a lot with respect to lands or buildings within the development and adjacent thereto.

New definitions were added to Section 265-301.4 as part of the 2013 amendments to the ZO, also implementing a short-range strategy outlined in the 2010 Plan Update and for consistency with Section 260-204 of the SLDO, as follows:

Homeowners' Association: A non-profit organization of homeowners or property owners, planned and operated under Township approved rules and regulations, for the purpose of administering to the needs of residents through the maintenance of community owned property such as open space.

Open Space Management Plan: A plan which provides for the long-term management over time of private, public, or common open space, in accordance with §617 of this Ordinance.

Recreation, Active: Those recreational pursuits which require physical alteration to the area in which they are performed. Such areas are intensively used and include, but are not limited to, playgrounds, ball courts, and swimming pools.

Recreation, Passive: Recreational pursuits which can be carried out with little alteration or disruption to the area in which they are performed. Such uses include, but are not limited to, hiking, biking and picnicking.

A new Section 265-617 was enacted as part of the 2013 amendments to the ZO, which implemented one of the short-range strategies outlined in the 2010 Plan Update. Section 265-617 established new regulations for open space management within developments. Highlights of Section 265-618 include the following subsections:

§265-617. Open space management provisions.

§265-617.1 Required open space management plan.

§265-617.2 Provisions for default of open space maintenance.

Section 260-509.1 was revised as part of the 2013 amendments to the SLDO, also implementing a short-range strategy outlined in the 2010 Plan Update, to add new open space requirements and fee in lieu option.

INVENTORY OF EXISTING TOWNSHIP RESOURCES & LAND

The Township contains substantial portions of its area that are "protected" or restricted from future development. The "protected" lands comprise about 1,800 acres or 27.0% of the Township consisting of the following categories and are shown on Map 2-5:

Lands Owned by Public Agencies

This category consists of land owned by the Township 401 acres (197.1 parks, 187.0 open space, 16.6 community facilities), County 12.5 acres, State 30.5 acres, and School District 186.8 acres. Tracts within this category include the Township Building and parks/open space, Shamona Creek, Uwchlan Hills, and Lionville Elementary Schools, Marsh Creek 6th Grade Center, Lionville Middle School, and Downingtown East High School. These areas comprise approximately 631 acres or 9.5% of the Township. A complete listing of land owned by the Township and School District is provided in Table 2-21.

Registered Historic Districts

The district is described in the historic resources section of this Chapter and includes the Village of Lionville. The district comprises 86 acres, or 1.3% of the Township.

Lands Protected by Township Ordinance

Those lands included in this category are areas of floodplain, wetlands, riparian buffers, and steep slope. The Township's Zoning Ordinance contains regulations that prohibit development upon floodplain, wetlands, and steep slopes and within riparian buffers (as defined on page 2-47), thereby, preserving these resources. Floodplain, wetlands, and riparian buffers comprise approximately 428 acres or 6.4% of the Township, 258 acres (3.9%) outside of lands owned by public agencies, while steep slopes (15-25% & 25%+) comprise approximately 1,026 acres or 15.4% of the Township, also about 131 acres (2.0%) are outside of lands owned by public agencies.

Conservation Easements & Homeowners Associations Lands

Lands within this category include the properties under easement, such as the Matthews Farm, and those parcels owned by Homeowners Associations within developments such as Arbordayle, Ashbridge, Eagleview, Greenbriar, Rhondda, Ridings, and Williamsburg. This category comprises 694 acres or 10.4% of the Township. A complete listing of parcels under easement or owned by homeowners associations is provided in Table 2-21.

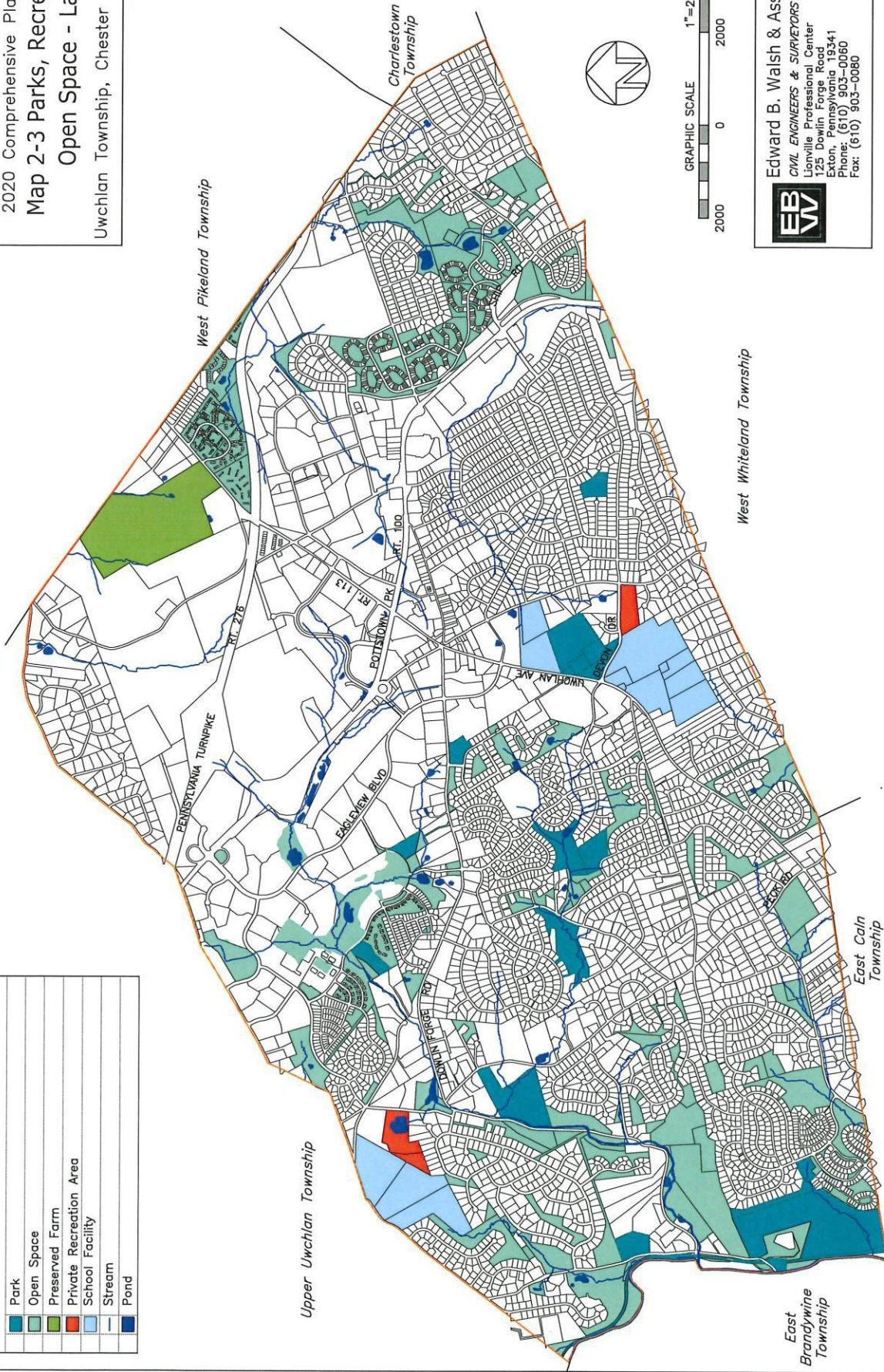
Utility Transmission Easements

Several natural gas and petroleum products transmission lines traverse the Township. Eight petroleum/natural gas product transmission lines traverse Uwchlan (Laurel Pipeline Co/Buckeye Partners, Sunoco Pipeline/Energy Transfer, TE Products Pipeline Co, LP/Enterprise Partners LP, Texas Eastern Transmission Co/Duke/Spectra Energy-Enbridge, & TransCanada/Columbia Gas) generally in a north-south direction.

2020 Comprehensive Plan Update
Map 2-3 Parks, Recreation & Open Space - Land
 Uwchlan Township, Chester County, PA

Legend

	Park
	Open Space
	Preserved Farm
	Private Recreation Area
	School Facility
	Stream
	Pond



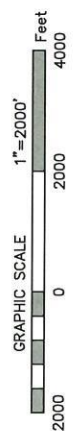
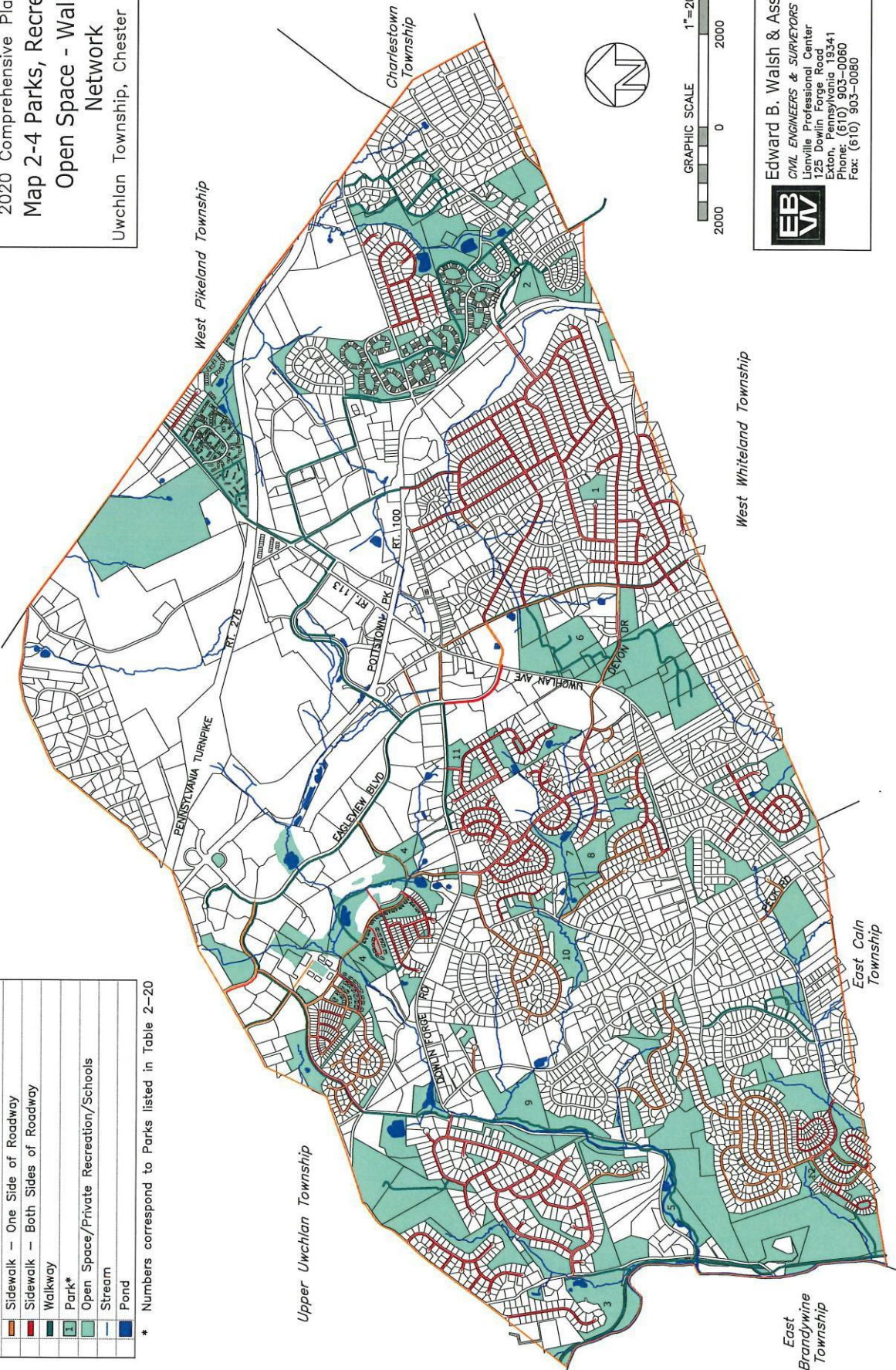
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Map 2-3
Parks, Recreation & Open Space – Land (back)

2020 Comprehensive Plan Update
 Map 2-4 Parks, Recreation &
 Open Space - Walkway
 Network
 Uwchlan Township, Chester County, PA

Legend	
	Sidewalk - One Side of Roadway
	Sidewalk - Both Sides of Roadway
	Walkway
	Park*
	Open Space/Private Recreation/Schools
	Stream
	Pond

* Numbers correspond to Parks listed in Table 2-20







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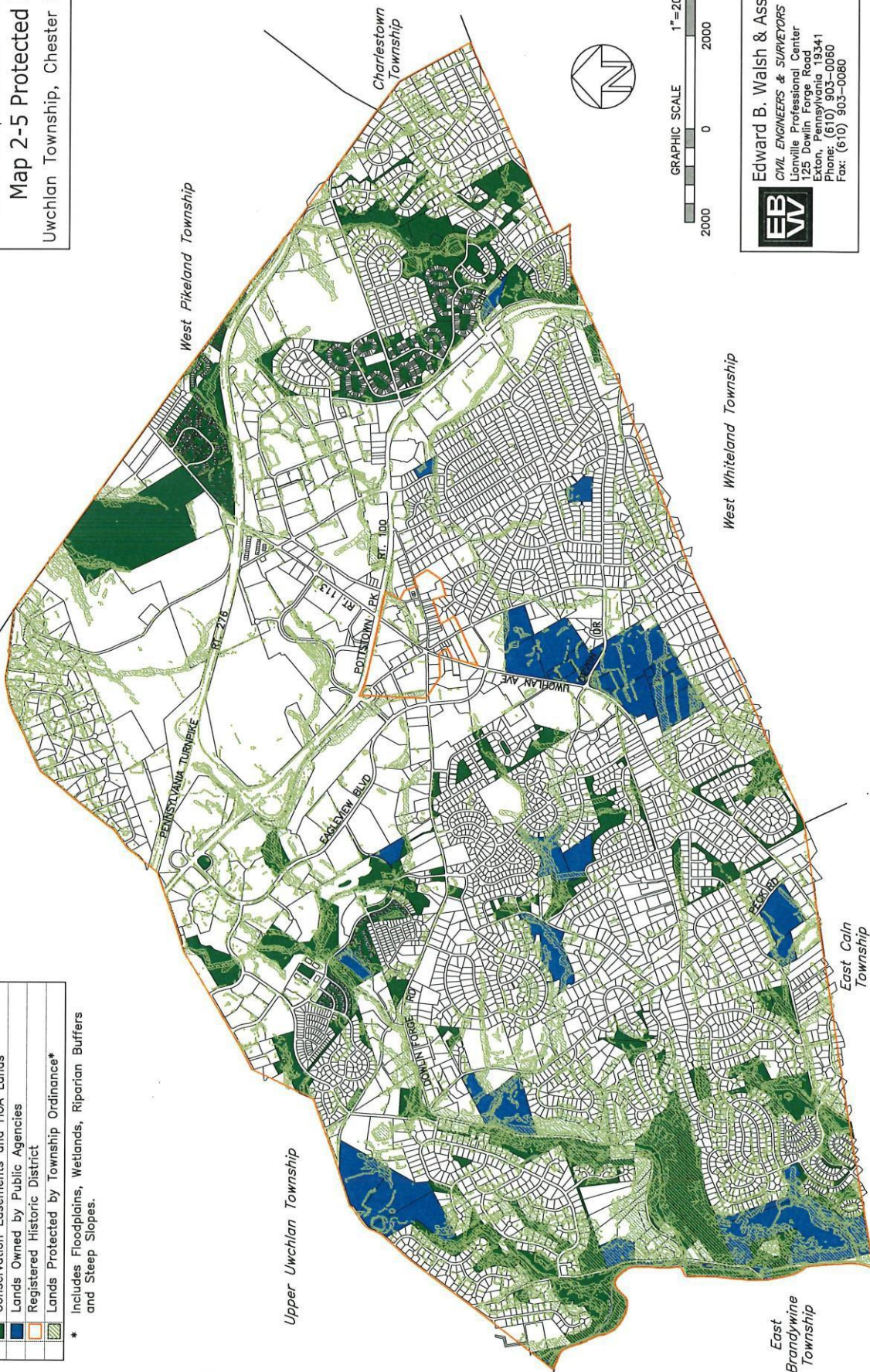


Map 2-4
Parks, Recreation & Open Space – Walkway Network (back)

2020 Comprehensive Plan Update
Map 2-5 Protected Lands
 Uwchlan Township, Chester County, PA

Legend	
Protected Lands	
	Conservation Easements and HOA Lands
	Lands Owned by Public Agencies
	Registered Historic District
	Lands Protected by Township Ordinance*

* Includes Floodplains, Wetlands, Riparian Buffers and Steep Slopes.



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Map 2-5
Protected Lands (back)

TRAFFIC & CIRCULATION

The Township road network performs several functions. The existing road network guides both circulation and land use patterns of the Township. Providing the means for transportation is the most important function and has several characteristics. Some roads are intended to move traffic at a moderate speed through Uwchlan to destinations beyond the Township, while others are intended to provide access to abutting properties. Another important factor of the road network is defining the Township character. Roads can either enhance landforms, vegetation, and existing buildings or ignore them. Decisions on roadway improvements or new roads need to take into consideration both the Township's character and traffic characteristics. Circulation is and will continue to be a crucial factor in the decision-making process regarding land use.

CURRENT STATUS OF THE TOWNSHIP'S ROADWAY SYSTEM

Map 2-6 illustrates the current roadway system and sets forth its functional classification.

Functional Classification of Roads

Functional Classification refers to the type of traffic and type of trip a given road is designed to accommodate. Typically, roadway systems are divided into the following categories of roadways.

- **Arterials:** These are major roads carrying regional traffic at higher speeds and at minimum delays. While arterials can serve abutting land uses, in the case of expressways such as the Pennsylvania Turnpike, they may not. In Uwchlan Township, in addition to the Pennsylvania Turnpike, PA Routes 100 and 113 are arterials.
- **Collector Roads:** These roads shuttle traffic between arterials and local roads. They serve abutting land uses, particularly in commercial areas. However, it is important to limit the number of access points to abutting properties to maintain efficient traffic flow. In Uwchlan Township, major collector roads are designated as follows:

- | | |
|----------------------------------|--|
| - Concord Avenue | - Peck Road |
| - Dorlan Mill Road/Shelmire Road | - Rice Boulevard |
| - Dowlin Forge Road | - Pennsylvania Avenue |
| - Eagleview Boulevard/Crump Road | - Sheree Boulevard |
| - Gordon Drive | - Ship Road/Marchwood Road |
| - Lionville Station Road | - Whitford Road |
| - Norwood Road | - Woodland Road/Deep Willow Road/Devon Drive |

The following have been designated as minor collector roadways:

- | | |
|--|------------------------|
| - Andover Drive | - Sharp Lane |
| - Bausman Drive | - Taylor Road |
| - Deep Willow Road (Wharton to Dowlin Forge) | - South Village Avenue |
| - Newcomen Road | - Valley Hill Road |
| - Pennypacker Road | - Welsh Ayers Way |
| - Pickering Way | - Welsh Pool Road |
| - Princeton Drive | - Wharton Boulevard |
| - Rutgers Drive | - Worthington Road |

- **Local Roads:** All other Township roads. Local roads are designed to serve primarily the residences and businesses fronting the street and carry a low volume of through traffic.

The "functional classification" definitions from the Subdivision and Land Development Ordinance are as follows:

Major Street – A street serving a large volume of comparatively high-speed and long-distance traffic, including all facilities classified as main and secondary highways by the Pennsylvania Department of Transportation (PADOT).

Collector Street – A street designed and located to provide the means to drain traffic off local streets before volumes get too high and to provide access for through traffic between residential neighborhoods and districts within the Township to major streets and/or a street used for access to nonresidential properties, i.e., commercial, industrial, professional, etc.

Minor or residential street – A street for local traffic as a means of access to abutting residential lots.

TOWNSHIP HIGHWAY DEPARTMENT

The Uwchlan Township Highway Department maintains the streets, signs and traffic lights for more than 80 miles of road. General maintenance, major reconstruction, and snow removal are performed by the Public Works Department of 11 full-time employees.

TRANSPORTATION INITIATIVES

Uwchlan has been active in improving the streets and roadways within the Township. Between 2000 and 2010 the Township completed the following road widening/segment improvements and intersection improvements:

Road Widening/Segment Improvements

- PA Route 113 – Gordon Drive to West Pikeland Township (including the PA Turnpike Bridge widening).
- Pennsylvania Avenue extension to Township Line.
- Wharton Boulevard – Rice Boulevard to Eagleview Boulevard (new collector road).
- Deep Willow Drive – Wharton Boulevard to Dowlin Forge Road (new collector road; extension of collector).

Intersection Improvements

- PA Route 113 & Eagleview Boulevard/Crump Road - Pennsylvania Avenue & Eagleview Boulevard
- PA Route 100 & Sheree Boulevard - PA Route 113 & Sheree Boulevard
- Eagleview Boulevard & Mukalian - Eagleview Boulevard & Dowlin Forge Road
- Eagleview Boulevard & Sheree Boulevard

As noted in Chapter 1, Uwchlan implemented several of the 2010 Short-Range Projects for Traffic & Circulation between 2010 and 2017. These projects include the following:

Road Widening/Segment Improvements

- Funded all engineering/inspection to facilitate the widening of PA Route 100 to 6 lanes from Welsh Pool Rd to Target in West Whiteland.
- Widened PA Route 113 to a 5-lane cross-section at the intersection with PA Route 100 extending from Crossroads Boulevard to the Crump Road/Eagleview Boulevard intersection.
- Widened Devon Drive

Intersection Improvements

PA Route 113 at PA Route 100

Scenic Roads

The Township has several road segments considered scenic that are highlighted in more detailed within the Natural & Historic Resources section of this Chapter.

Mass Transit

Minutes from the center of Uwchlan (Routes 100 & 113), SEPTA's R5 Train provides commuter rail service to Philadelphia at the following stations: Downingtown (5 miles) located on the south side of Route 30 at Stuart Avenue; Whitford (4 miles) located on the west side of Whitford Road north of Spackman Lane; and Exton (4 miles) located on the east side of Route 100 south of the Route 30 Bypass. AMTRAK service is available to Harrisburg and Philadelphia at the same three stations. Commuting times to Philadelphia or Harrisburg via SEPTA and AMTRAK are 30 minutes to one hour commutes

depending upon time of day. Connections at 30th Street Station in Philadelphia place New York and Washington DC approximately one hour away on AMTRAK.

The bus and train routes serving Uwchlan are augmented by Park & Ride Lots located at the following locations: Route 113 east of Route 100; Downingtown Station at Route 30 and Stuart Avenue; Whitford Station at Whitford Road and Spackman Lane; Exton Station at the Route 100 and Exton Bypass Interchange; Rout 30 at the Route 202 Interchange (4.5 miles).





Non-Motorized Transportation

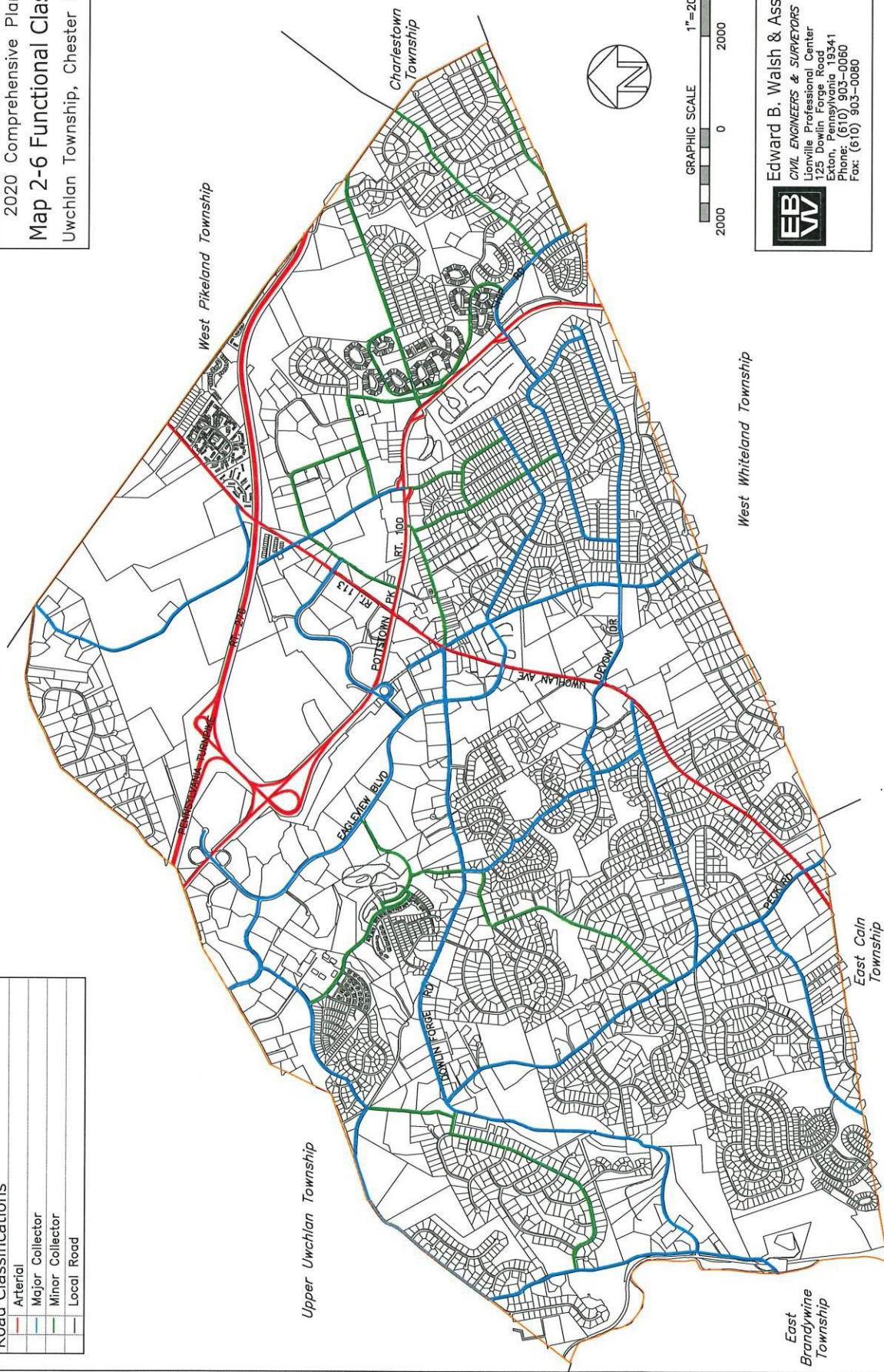
As discussed earlier in the Parks, Recreation & Open Space section of this Chapter, a network of trails and sidewalks exist throughout the Township. The 12-mile Uwchlan Trail and its major spurs were designed not only as the chief pedestrian arteries linking the developments within the Township to Struble Trail and County/Township park in West Whiteland, but linking the developments to the schools, shopping, and employment areas of the Township. Few municipalities can match the 60+ miles of sidewalks located along many major roads and within developments throughout the Township.

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2020 Comprehensive Plan Update
Map 2-6 Functional Classification
 Uwchlan Township, Chester County, PA

Legend

Road Classifications	
	Arterial
	Major Collector
	Minor Collector
	Local Road




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Map 2-6
Functional Classification (back)

NATURAL & HISTORIC RESOURCES

Natural resources may be either renewable or non-renewable. Some resources are easily degraded and many are irreplaceable. Although many resources such as air, water, and timber can renew themselves, they do so in a time frame often beyond cultural intervention. Frequently, the ability of humans to deplete resources has not been balanced by our ability to restore them. While individual landowners have few limitations upon their land use and may not intend to degrade the natural and cultural environment, at the Township scale, the cumulative effects of improper land use management can pose severe threats to public health, safety and welfare. Encroachment of development in marginal areas also may result in damage to existing homes through flooding and landslides.

There is a practical implication to viewing land as a resource rather than as a commodity. The unique and irreplaceable beauty, character and sense of community in the Township have been recognized as resources worth protecting. Land use management should occur in a framework of stewardship and in harmony with the long-term preservation of the land. Natural and cultural resources are essential to the quality of life in Uwchlan Township and the following sections provide information intended to promote their appropriate management. As with previous planning efforts, the resource headings remain the same for consistency between documents. Those changes and/or ordinance amendments recommended by the 2010 Plan that been implemented are highlighted. The Township Environmental Resources are mapped as follows: Water Resources (Map 2-7), Land Resources (Map 2-8), and Historic & Cultural Resources (Map 2-9). A description of each of the resources follows.

Environmental Advisory Council (EAC)

As highlighted in the Community Facilities and Services section of this Chapter, a key step towards publically supporting the preservation and protection of the environmental resources of the Township, the Board of Supervisors established an EAC in April of 2018. The EAC was created to review and recommend to the Supervisors on all items environmentally related and as well as promote environmental education programs. The EAC specifically has the following powers:

- Make recommendations as to matters concerning protection, conservation, management, promotion, and the use of natural resources including air, land, and water resources, located within Township boundaries.
- Comment on environmental issues associated with subdivision and land development applications and submissions, and proposed ordinance amendments, as required by the BOS.
- Identify environmental issues and problems, and recommend plans and programs for the promotion and conservation of the natural resources and for the protection and improvement of the quality of the environment within Uwchlan Township, consistent with the Township Comprehensive Plan.
- Make recommendations as to the possible environmental issues regarding the use of open land within Uwchlan Township.
- Work with schools and local environmental groups to enhance and promote community environmental education programs.
- Develop an environmental resources inventory, including flood-prone areas, swamps and other unique natural areas, for the purpose of obtaining information on the proper use, protection, and management of those areas.
- Work with existing Township watershed associations and other interested parties in preparing a Township-wide watershed management plan.
- Develop environmental education awareness programs for Township residents.
- Investigate and make recommendations regarding grants available to the Township related to environmental issues and education.
- Undertake such other environmental tasks as required by the BOS.

PHYSICAL FEATURES & NATURAL RESOURCES

Topography

The form of the land is an essential factor in determining the land use potential of any community. A detailed examination of the development pattern of nearly any suburban area will reveal the manner in which the location and nature of topographic features have affected its growth.

Uwchlan falls entirely within the Piedmont province of the Appalachian Highlands. The Township is essentially one physiographic area: upland. Most of Uwchlan is gently rolling, except for another area of steeply eroded slopes in the southwest corner of the Township, flanking the valleys of the East Branch of the Brandywine and the Shamona Creek.

Percent of slope is directly related to the suitability of land for specific forms of development. A five-category system has been used to identify degree of slope.

0% to 3% Slope: Such slopes are generally suitable for all development uses.

3% to 8% Slopes: These slopes are suitable for medium density residential development, agriculture, and nearly all commercial, industrial and institutional uses.

8% to 15% Slopes: Slopes of this nature are best suited for moderate to low density residential development, however, considerable care should be exercised in the location of any commercial, industrial or institutional uses.

15% to 25% Slopes: Such areas are suitable only for yards in low-density residential development, limited agriculture, and recreational uses.

Over 25% Slope: This steeply sloping land should be used only for open space and certain recreational uses.

Slopes equal to fifteen percent or greater are classified as environmental sensitive due to the increased potential for erosion, low degree of slope stability and difficult access in poor weather conditions. Concentrations of steep slopes are found along the East Branch of the Brandywine Creek in the western and southwestern portions of the Township, particularly where streams have eroded deep ravines. Steep slopes are shown on Map 2-8.

A new Section 265-618 was enacted as part of the 2013 amendments to the ZO, which implemented one of the short-range strategies outlined in the 2010 Plan Update. Section 265-618 established new regulations for the development of steep slopes. Highlights of Section 265-618 include the following subsections:

§265-618. Steep slope standards.

§265-618.1 Intended purposes.

§265-618.2. General provisions.

§265-618.3 Designation and interpretation.

§265-618.4 Resource protection standards.

§265-618.5. Application procedures.

In addition, a new Section 265-201.11 was added as part of the 2013 amendments, also implementing a short-range strategy outlined in the 2010 Plan Update, which established a new community development objective to protect environmental resources of the Township such as steep slope. Section 265-301.4 was also amended as a short-range strategy of the 2010 Update to include the definition of steep slope – ‘those land areas with slopes of 15% or greater; the methodology for delineation steep slope is established in §618 of this Ordinance’.

Drainage

The surface drainage pattern of Uwchlan Township is situated within two drainage basins as shown on Map 2-7. The Schuylkill River Basin drains the eastern quarter of the Township. The Pickering Creek is a sub-basin of the Schuylkill River Basin and Pine Creek is a sub-basin of the Pickering Creek.

The remaining three-quarters of the Township, lying west of the Schuylkill River Basin, are located in the Brandywine Creek Basin. The Shamona Creek and Valley Creek are both sub-basins of the East Branch of the Brandywine Creek. Aside from the streams, surface water is contained in a few scattered ponds, some of which are used for recreation and stormwater management. The drainage basins of stream valley systems may be classified as follows:

- The smallest fingertip tributaries are designated order 1;
- Where two first-order channels join, a channel segment of order 2 is formed; and
- Where two of order 2 join, a segment of order 3 is formed, and so forth.

Major stream corridors include the stream valley systems of the third, fourth and fifth order channels. The East Branch of the Brandywine Creek is considered a major stream corridor. Most of the remaining stream system is orders 1 or 2.

New definitions were added to Section 265-301.4 as part of the 2013 amendments to the ZO, implementing a short-range strategy outlined in the 2010 Plan Update and for consistency with Section 260-204 of the SLDO, as follows:

Watercourse: That channel on the land surface, or other plainly observable evidence on the ground, where water flow is visibly definable, but not necessarily present, as a result of seasonal or ongoing hydrologic events such as, but not including, runoff, melting, springs, or ponding.

Waters of the Commonwealth: Any and all rivers, streams, creeks, lakes, rivulets, dammed water, ponds, springs, and all other bodies of surface and underground water, or parts thereof, whether natural or artificial, within or in the boundaries of the Commonwealth of Pennsylvania.

As discussed in the Community Facilities Inventory, Chapter 214, Stormwater Management, of the Township Code was amended in 2013 to both implement a short-range strategy of the 2010 Plan and comply with the PADEP MS4 Program. Highlights of Chapter 214 listed below, not only assist in drainage, but improve water quality as well by:

Simplified Approach to Stormwater Management for Small Projects

Natural Hydrology Site Design Process

Stormwater BMP

Stormwater BMP & Conveyances Operation and Maintenance Agreement

Stream Water Quality Classification

Rivers and streams are biological communities, supporting a wide variety of vertebrate and invertebrate animals, plants, and microorganisms. Under natural conditions, these water courses act as conduits for organic matter and nutrients, collected from the watershed and distributed as food to the various biological entities that occur along the continuum from the tops of the watersheds to the mouths of major rivers. As is typical of natural communities, there is a balance of sorts that permits a wide variety of organisms to exist in these streams. It is generally accepted by the scientific community that protection of this natural diversity is important in its own right as well as to humans that currently or someday find use for these organisms as food or medicinal sources. Additionally, streams and rivers have become important sources of drinking water for human population centers.

The Federal Environmental Protection Agency (EPA) and Pennsylvania Department of Environmental Protection (PADEP) developed water quality regulations designed to protect the physical, chemical and biological integrity of streams. PADEP established a classification system for protected water uses or types. The East Branch, Marsh Creek, Pickering, Pine, and Shamona Creeks are designated as High Quality – Trout Stocking Fisheries. The Valley Creek is designated as Cold-Water Migratory Fisheries. The stream classifications are shown on Map 2-7. Notwithstanding the classifications noted above, over 95% of the waters within Uwchlan contain at least one form of impairment according to the 2018 PADEP Integrated Water Quality Report; the exception being a small portion the Pickering Creek in the extreme northern section of the Township. This percent is much greater than the 70% noted County-wide.

High Quality Waters are streams or watersheds that have excellent quality waters and environmental or other features that require special water quality protection. Cold Water Fisheries involve the maintenance and/or propagation of fish species including the family salmonidae and additional flora and fauna that are indigenous to cold water habitat. Migratory Fisheries involve the passage, maintenance and propagation of anadromous and catadromous and other fishes, which ascend to flowing waters to complete their life cycle.

Riparian Buffers

The word “riparian” refers to the vegetated area of land adjacent to a pond, lake, stream, creek, river or wetland. As such, forested riparian buffers are stands of trees, shrubs, and other vegetation which protect waterways from the impact of human activities such as farming, grazing, lumbering, and development. This vegetation intercepts polluted and sediment-laden stormwater runoff from the land surface before it reaches the water body. Preserving and restoring riparian buffers are among the most effective techniques used to protect and enhance the quality of groundwater, surface water, and wildlife habitats. Buffers are most critical in headwaters areas and the smaller first (1) and second (2)

order streams discussed above. In addition to maintaining the stream quality classification noted above, riparian buffers are recognized as a stormwater management best management practice (BMP). In particular, forested buffers along streams provide the following critical environmental functions: peak storm flow reduction; filtering pollutants; nutrient uptake, and stream bank stabilization.

Uwchlan has recognized their importance by including a definition of riparian buffer area within the Zoning Ordinance (discussed in Chapter 1) that requires a 50-foot wide undeveloped, vegetated corridor generally parallel and measured outward from either the top of stream or other bank, edge of pond or wetlands, or the boundary of the 100-year floodplain, whichever yields the greater buffer width. Consequently, the riparian buffers correspond to the Township- wide stream network shown on Map 2-5 and 2-7.

Floodplains

The entire western border of the Township, the East Branch of the Brandywine Creek, comprises one of the two major floodplains in Uwchlan Township. Shamona Creek, a tributary of the East Branch of the Brandywine Creek, constitutes the second floodplain area. Several other minor floodplains can be found in a fingering pattern corresponding with the stream network within the Township. Floodplains are shown on Map 2-7.

For property owners to receive Federal Flood Insurance, municipalities must participate in the National Flood Insurance Program administered by the Federal Emergency Management Agency (FEMA), Federal Insurance Administration (FIA). Participation requires the mapping of flood-prone areas and the adoption of floodplain management measures. In 1980, the FIA published a Flood Hazard Boundary Map of Uwchlan Township. Areas subject to inundation from an intermediate level of flooding, also referred to as the "base flood" or "100-year flood," appear on this map. Uwchlan updated its floodplain regulations within Section 265-510 in 2017 (Ord. 2017-05) to comply with the most recent FEMA requirements.

A new Section 265-201.11 was added as part of the 2013 amendments to the ZO, implementing a short-range strategy outlined in the 2010 Plan Update, which established a new community development objective to protect environmental resources of the Township such as floodplain.

Wetlands

As defined by the PADEP, the EPA, and the U.S. Army Corps of Engineers, wetlands are those areas which are inundated or saturated by surface or groundwater at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas that possess three essential characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Wetlands are shown on Map 2-7.

Wetlands have become recognized as uniquely important components of the landscape by scientists, engineers, public interest groups, and governmental agencies. Their importance lies both on the traditional values of wetlands as areas of fish and wildlife protection as well as in newly found values of wetlands as areas of stormwater management.

Wetlands were identified using the U.S. Fish and Wildlife Service's National Wetland Inventory (NWI) mapping. The NWI Map was compiled by the U.S. Fish and Wildlife Service using color infrared aerial photos for the identification of wetlands using soil moisture content. The quality of the maps varies greatly depending on the quality of the photos, the time the photos were taken, and the type of wetlands being identified. The NWI Map is a helpful background source for wetland investigations. However, field research by a trained expert is necessary to determine the prevalence or absence of wetlands. Another source for wetland information is the occurrence of hydric soils - which usually are indicators of wetland conditions.

Identified areas include the stream system, open excavations, and farm ponds. Significant wetland areas exist within those wider expanses of the creek corridors. The value of wetlands is often overlooked. Wetland functions and values include: flood conveyance and storage; sediment, erosion and pollution control; wildlife habitats; water supply; groundwater and aquifer recharge; recreation and education. For these reasons, Uwchlan Township needs to protect its wetlands.

Wetlands are protected on the federal level by EPA and on the state level by PADEP. Therefore, any development or encroachment of these areas is subject to both federal and state permitting processes. The Township not only requires wetlands to be shown on all subdivision and land development plans, but also mandates their preservation.

A new Section 265-201.11 was added as part of the 2013 amendments to the ZO, implementing a short-range strategy outlined in the 2010 Plan Update, which established a new community development objective to protect environmental resources of the Township such as wetlands. In addition, a new definition 'Wetlands' was included in Section 265-301.4 as part of the 2013 amendments to the ZO, also implementing the short-range strategy mentioned above and for consistency with Section 260-204 of the SLDO, as follows:

Wetlands: Areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas. Wetlands include all lands regulated as wetlands by the Pennsylvania Department of Environmental Protection or the United States Army Corps of Engineers. In the event there is a conflict between the definitions of these agencies, the more restrictive definition shall apply.

Hydric Soils & Headwaters

In upland depressions and low-lying areas at the fringes of floodplains are found soils with shallow depth to water table and, occasionally, standing water. These are areas of high-water table where the upper surface of the zone of saturation is at, or near to, the ground surface for at least a portion of the year. High water table areas vary somewhat due to the variation in yearly and seasonal rainfall and groundwater usage. Some high-water table areas change little because of impervious sub-surface soil or geology that limits downward percolation of water. Hydric soils are a reasonable indicator of wetland conditions and are generally found within or adjacent to wetlands. Such "wet" or hydric soils are mapped generally in the Soil Survey of Chester and Delaware Counties.

Some of the hydric soils comprise the headwater areas of the stream system in Uwchlan Township. Headwater areas comprise the stream valley system of first and second order channels. Sub-basins that provide the source water for these channels are the lowest order basins and sometimes contain intermittent streams not part of the ordinary process. The areas identified may be more sensitive, since these areas have steeper slopes and contaminants and sediments would tend to be transported more rapidly to the streams with limited opportunity for filtering.

In addition to headwater areas of the Pickering, Pine, Shamona, and Valley Creeks, concentrations of hydric soils are located adjacent to the PA Turnpike interchange, between Whitford Road and Route 113, and between Woodland and Devon Drives.

A new definition 'Hydric Soils' was added to Section 265-301.4 as part of the 2013 amendments to the ZO, also implementing a short-range strategy outlined in the 2010 Plan Update as well as consistency with Section 260-204 of the SLDO, as follows:

Hydric Soils: Any soil inventoried or described as hydric or as a soil with hydric inclusions according to the Soil Survey of Chester and Delaware Counties, Pennsylvania, or other information provided by the U.S. Soil Conservation Service (SCS). In Uwchlan Township, hydric soils shall include, but are not limited to:

Hydric Soils

Wedhadkee (We)

Worsham (WoA, WoB, WoB2)

Soils with Hydric Inclusions

Chewacla (Ch)

Congaree (Cn)

Glenville (GnA, GnB, GnB2, GnC2)

Groundwater & Geology

While the topography determines the patterns of creeks and rivers, groundwater flow is controlled partially by topography, but primarily by subsurface geology. Bedrock geology has primary control on the storage, capacity, quality, and flow of groundwater. Geologic features such as rock type, strata orientation, faults, joints, folds, solution channels, etc., affect groundwater quality, quantity, and movement. Different types of rock allow varying amounts of groundwater to become available for utilization, but the geology can also play a part in contamination of groundwater. For example, a porous rock, or

rocks with numerous fractures, may allow rapid and widespread contamination of groundwater sources from surface contamination sources, such as improperly constructed landfills, leaking underground fuel tanks, and failing on-lot sewage disposal systems. For these reasons, the character of the geology will have an effect on potential development.

Geology, the science that investigates the structure of the earth, provides us with information to aid in the development and proper use of our land resources. It helps us locate ground water supplies, minable materials such as coal, iron, oil and limestone, and other raw materials needed by our modern society. Knowledge of local geology is also essential to the engineer in designing dams, highways or large buildings.

In general, the underlying rock throughout the Township consists of igneous and metamorphic rocks (gneiss, quartzite and schist). These crystalline structures have low magnitude porosity resulting in slow groundwater recharge. Groundwater capabilities have been estimated as low in the north (1-10 gpm) to moderate in the remainder of the Township (10-60 gpm). Well sites in the Township must be carefully chosen to obtain maximum yields.

Fault zones indicate areas where the groundwater flow may mainly be through fractures. Fault zones shown on the Land Resources Map are also based on U.S. Geological Survey information and represent areas where the rock has not only fractured but also moved up or down. These areas may provide a path for groundwater flow since the movement along the fault zone usually breaks and creates open spaces in the rock.

These areas may be important in terms of both water quality and quantity. The more fractures a well intercept, the higher the yield. Since fractures transmit the groundwater, they can also transmit contaminants contained in the groundwater. This means that once the groundwater is polluted, the pollution may spread to other areas at a quicker rate in aquifers which are more fractured. The fault zone within Uwchlan Township is located in the southern portion of the Township within the quartzite formations.

The Township is essentially situated between two regional aquifers: the Stockton sandstone formation in northern Chester County and the limestone of the Chester Valley. The Township is an upland area comprised of gneiss and quartzite formations. Therefore, no regional aquifers exist within Uwchlan Township.

Soils

Historically, the nature and quality of soil has had a very important effect on how land was used, especially in agricultural areas. It is therefore important to review the nature and qualities of Uwchlan Township's soils, because land use activities are frequently reflections of soil type.

In terms of efficient use of resources, a common-sense goal would be to arrange land uses so that the best soils for agricultural uses (i.e. well-drained, deep, and fertile) are left undisturbed, while residential development would be focused towards soil areas that are less productive or are not easily worked. Construction costs can be minimized if development is steered towards areas that have deep well-drained soils rather than a high-water table or shallow depth to bedrock. Intensive land uses, such as industrial, commercial, or activities that require large parking areas, should also be directed towards soils that can support heavy loads or paved areas.

While virtually any structure can be safely built on almost any soil type (or slope), such developments may require unreasonable amounts of engineering, site preparation, and cost. Therefore, while this analysis will not predict the appropriate location for any land use with one hundred percent certainty, it is a reasonable set of guidelines for future development or areas of constraint.

One of the most useful components of the soil analysis is the list of types of constraints imposed by different soil types. For example, a soil type may be subject to flooding, or be too wet for certain types of development. Constraints can affect construction, such as the ability of soil to support loads, on its frost action, shrink-swell potential, etc. This information is necessary to identify areas that are not appropriate for extensive development.

The major soils types of Uwchlan are the Edgemont soils found north of the Great Valley and carve out the southern quarter of the Township, and the Glenelg-Manor-Chester soils which cover the remaining ground in the Township. The significance of soils for planning purposes lies in suitability of the soils to foundations for buildings and other structures. When a slope is 15% or less Edgemont and Glenelg-Manor-Chester soils have only a moderate degree of limitation for buildings of three stories with basements.

The Soil Survey of Chester and Delaware Counties provides detailed information for individual mapping units within the general soil associations described above.

Woodlands

A high-quality hardwood forest exists on the slopes in the western portion of the Township. Of the remaining scattered areas of woodland, many exist in stream valleys, making them especially valuable for open space. The original vegetation of Uwchlan Township was a dense cover of trees. Cutting for the forges and clearing for agriculture eliminated virtually all of the virgin stands of woodlands. Now, the woodlands consist of second and third growth stands. Most woodlands appear to be in the age of 60-80 years. The principal types of trees that make up the present woodlands consist of deciduous hardwoods such as red oak, white oak, black oak, beech, and tulip poplar. The wetter areas include red maple, elm, ash, hickory and sycamore. The existence of these wooded areas on lands of relatively steep slope increases the importance of maximum conservation efforts. The retention of wooded slopes is essential to temper runoff, prevent soil erosion, replenish groundwater and regulate stream flow.

Wooded areas are complex communities of various types of plants in which a variety of plant associations and layers exist at various stages of successional age. These layers may include, but are not limited to grasses and herbaceous growth, shrubs, understory species (trees below upper canopy cover) and canopy species (uppermost layer of trees). Wooded areas are significant for their environmental, social and economic values. These lands are a vital link to the hydrologic cycle. Stands of trees provide natural erosion and flood control by decreasing the speed and amount of stormwater runoff and by providing ground cover. They also reduce temperature extremes and moderate evaporation. The tree canopy reduces the amount and intensity of rainfall reaching the surface; root systems hold the soil; and the forest floor litter protects the ground, slows runoff, and promotes percolation by providing many miniature obstructions and ponding areas. Hence, forest cover is beneficial on steep slopes and other areas where soil erosion potential is high. Trees also function as natural barriers by reducing the unwelcome impact of noise and of strong winds and wind-transported substances (dust, snow) and by screening unsightly areas. Trees also absorb water, which is stored in the stems and leaves and released in evapotranspiration. Woodlands serve as habitats for many kinds of wildlife. Many beneficial species (such as pollinators), soil organisms, and the natural predators (such as the birds that eat insects) live and breed in such areas. The wooded areas in Uwchlan provide most of the habitat for wildlife in the Township. Woodlands are shown on Map 2-8.

Recreational land is enhanced by forested areas. Certain developments may actually increase wildlife values of the woodland by producing more forest/non-forest interface or "edge", a mixed habitat that supports more species than the area it adjoins. The importance of the loss of a particular stand of trees depends upon its relative value in that area. The size and configuration of the stand, its relative uniqueness, and its natural protective functions need to be considered. Steeply sloped woodlands are particularly sensitive to any kind of development that removes the trees, since the consequent increase in stormwater runoff and soil erosion have far-reaching detrimental impacts.

New definitions were added to Section 265-301.4 as part of the 2013 amendments to the ZO, also implementing a short-range strategy outlined in the 2010 Plan Update regarding woodlands as well as consistency with Section 260-204 of the SLDO, as follows:

Clear Cutting: The felling of all trees on a tract of land, or any portion thereof, at one time.

DBH (dbh): The diameter of a tree at breast height, measured four and one-half (4.5) feet from the ground surface at the point of highest elevation in contact with the trunk of such tree.

Drip Line: A generally circular line, the circumference of which is determined by the outer reaches of a tree's widest branching points.

Hedgerow: A linear plant community dominated by trees and/or shrubs. Hedgerows often occur along roads, fence lines, property lines, or between fields, and may occur naturally or be specially planted (e.g., as a windbreak).

Natural Condition: In the context of a site, the condition of the site prior to development as determined by the plans of the required Environmental Impact Assessment Site (EIA) identifying the following: geological, topographical, soil, hydrological, biological, and land use conditions of the site.

Old Field: An area undergoing natural succession, characterized by the presence of shrubs and small trees (seedlings) whose branches do not form a complete or nearly complete aerial canopy.

Tree Protection Zone: An area surrounding a tree or tree mass in which no construction, construction activity or other disturbance shall take place.

Woodland: A tree mass or plant community covering an area of 1/4 of an acre or more in which tree species are dominant or codominant and the branches of the trees form a complete or nearly complete aerial canopy. For the purposes of this Ordinance, the extent of any woodland plant community or any part thereof shall be measured from the outermost drip line of all the trees in the community. Woodland shall include any area where timber has been harvested within the previous three years and/or woodland disturbance has occurred within the previous three years which would have met the definition of woodland prior to timbering or disturbance. Woodlands do not include nursery stock, orchards, or oldfields, except where natural succession has been allowed to occur and where most naturally occurring trees are larger than six inches dbh.

Woodland Disturbance: Any activity which alters the existing structure of a woodland or hedgerow. Alterations include the cutting or removal of canopy trees, subcanopy trees, understory shrubs and vines, woody and herbaceous woodland floor species. Also includes any activity which constitutes a land disturbance (exposes soils, alters topography) within a woodland or hedgerow. Woodland disturbance does not include the removal of vegetation that constitutes hazardous condition(s), nor the selective cutting or removal of invasive alien trees, shrubs, vines or herbaceous species.

A new Section 265-619 was enacted as part of the 2013 amendments to the ZO, which implemented one of the short-range strategies outlined in the 2010 Plan Update. Section 265-617 established new standards for woodland protection. Highlights of Section 265-619 include the following subsections:

- §265-619 Woodland protection standards.
- §265-619.1 Protection standards.
- §265-619.1a. Disturbance limitations for woodlands and hedgerows.

In addition, Section §260-406.1.f(1-2) (EIA) and Sections §260-512.1 & 2 (new) of the SLDO were amended in 2013 to include tree protection zones and woodland management plan requirements, also as part of a short-range strategy of the 2010 Plan Update for natural resource protection. Highlights of Section 260-512 include the following subsections:

- §260-512 Tree protection and woodland management.
- §260-512.1 Tree protection.
- §260-512.2 Woodland management planning.

Habitat Areas

Three specific types are home to Uwchlan's plant and animal communities: open field or pasture; forest, often comprising steep and/or stony soils; and the wetlands, including streams, springs, ponds and meadows. Many species of plants and animals may be found in more than one habitat type, due to their ability to disperse and adapt to variable conditions. Other plants and animals have adapted to very specific needs and conditions, and are critically dependent upon the conservation of particular habitat types. Man-influenced habitats often play equally important roles in the maintenance of today's diverse flora and fauna communities; farm fields and pasture, hedgerows and tree lines, offer important food and cover sources, for example.

The Pennsylvania Natural Diversity Index (PNDI) provides an inventory of threatened and/or endangered animal and plant species. Natural communities and special plant locations or habitat areas have been generally plotted on U.S.G.S. Quadrangles. Specific PNDI species and locations are divulged by the State and Federal agencies during the land development process. One generalized PNDI site is shown on Map 2-9 adjacent to the East Branch.

A new Section 265-201.11 was added as part of the 2013 amendments to the ZO, implementing a short-range strategy outlined in the 2010 Plan Update, which established a new community development objective to preserve environmental resources of the Township such as habitat areas and PNDI site. In addition, new definitions were included in Section 265-301.4 as part of the 2013 amendments to the ZO, also implementing a short-range strategy outlined in the 2010 Plan Update regarding such sites and for consistency with Section 260-204 of the SLDO, as follows:

PNDI - Pennsylvania Natural Diversity Inventory provides an inventory of threatened and/or endangered animal and plant species.

Rare, Threatened, Endangered (RTE) Species Sites: Sites which have been identified on the PNDI, or the Chester County Natural Areas Inventory as possessing floral or faunal species of concern or sites in which federally and/or state recognized RTE species of flora and/or fauna are present.

HISTORICAL & CULTURAL RESOURCES

Scenic Roads

The major roads traversing Uwchlan Township include the Pennsylvania Turnpike, U.S. Route 100, and Route 113. These roadways are primarily straight, heavily traveled arteries through residential, commercial and industrial land use areas. Therefore, due to the lack of scenic roadside quality, none of these roadways are considered scenic roads. Scenic roads, on the other hand, accentuate and facilitate visual access to the sense of open space that characterizes portions of Uwchlan Township. While that form of access is distinctly passive, it is the form most frequently enjoyed by the general populace. Scenic roads provide a close to home opportunity for pleasure driving and sightseeing, among the most popular outdoor recreation activities in Pennsylvania.

The following collector roads were designated "scenic roads" or "scenic with intrusions." Scenic roads: Dowlin Forge/Pennypacker Road, Shelmire Road, and Lionville Station Road. Intrusions onto scenic roads are created primarily by newer development that has reduced a formerly scenic road to just segments that are scenic. Intrusions include the fronts and rears of houses, multiple driveways and streets, removal of trees, and expansive grass lawns. Scenic roads with intrusions are: Dowlin Forge Road (Pennypacker to Taylors Mill Roads), Peck Road (Filman to Dowlin Forge Roads), Taylor Road (Horseshoe to Spring Run Lanes), and Woodland Drive (Benning Lane to Route 113). Scenic vistas viewed from the scenic roads within the Township include the following, which are shown Map 2-9:

- View south from Shamona Creek Elementary School/Marsh Creek 6th Grade Center;
- View north from Lionville Elementary School;
- View from Longfields Way; and
- View northwest from Elm Court

Historic & Archaeological Sites

Pennsylvania Historical and Museum Commission (PHMC) maintains a listing of all Federally listed and/or eligible historic sites for the State. The Township currently has one listing on the national Register of Historic Places, and three sites have been listed on the Pennsylvania Inventory of Historic Places. The Lionville Historic District, a National Historic District, is the only historic district in the Township and contains 38 structures as shown on Map 2-9. As part of the Chester County Historic Site Survey, which was produced between 1979 and 1982, approximately 140 sites of possible historic and/or architectural significance have been identified in Uwchlan Township.

The Township Zoning Ordinance contains Historic Preservation Regulations. The Historic Resource zoning provisions have been revised periodically and will soon be updated to include all properties with structures built before 1951. The Township's commitment to historic preservation is exemplified in the fact that the Township Administrative Building is a Class 1 resource. The Township, however, does not assume ownership of historic properties – except for the Edith P. Moore Lionville Schoolhouse, the Township building, the Hoffecker House, several ruins in Dowlin Forge Park, the Cadwalader House and two bridges on Dowlin Forge Road – the Shamona Dell bridge (built in 1906) and the Dowlin Forge Bridge (built in 1914). The preservation of these historic properties, therefore, is for the most part left to the individual property owners.

The National Register criteria seek to pinpoint historical significance in terms of integrity of location, design, setting, materials, workmanship, feeling and association - for sites, districts, buildings, structures or objects as follows:

- that are associated with events that have made a significant contribution to the broad pattern of history; or
- that are associated with the lives of persons significant in our past; or
- that embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- that have yielded or may be likely to yield information important in prehistory of history.

Listing on the National Register does not provide absolute protection; it does, however, mandate an additional level of review known as a Section 106 Review (Section 106 of the National Historic Preservation Act) should a federal action, or federally funded actions impact the property either physically or visually. Such review processes must be followed or the use of Federal money for a project is jeopardized. As noted in Chapter 1, the Township Zoning Ordinance offers additional protection of historic resources.

In addition to the added level of review, listing on the National Register enables the owner of such a property to rehabilitate the property for income-producing purposes and take a 20% Investment Tax Credit on his Federal Income Taxes. Additional regulations, the Secretary of the Interior's Standards for Rehabilitation, also apply to this process and must be stringently adhered to in order to qualify for the credit. A similar but lesser credit (10%) is also available for owners who rehabilitate older structures which are not on the National Register buildings (but which might be identified in the Township inventory).

Uwchlan Township is committed to historic preservation. While no registered archaeological sites exist within the Township, preliminary archaeological surveys have been conducted at the Dowlin Forge Ruins, Shamona Park and the Happy Days Farm.

A new Section 265-201.12 was added as part of the 2013 amendments to the ZO, implementing a short-range strategy outlined in the 2010 Plan Update, which established a new community development objective to protect historic resources identified within the Comprehensive Plan and this Ordinance. The main emphasis of the 2013 amendments regarding historic preservation involved new definitions in Section 265-301 and revised standards in Section 265-612. The following is a summary of such:

Section 265-301 Definitions

Class 1, 2 or 3 Historic Resource: Historic resources as defined in §612.3.a(1), (2), (3) and (4), respectively, of this Ordinance.

Cultural Facilities: Establishments such as museums, art galleries, botanical and zoological gardens of an historic, educational or cultural interest which are not operated commercially.

Cultural Studio: A building or portion of a building used as a place of work by an artist, photographer, artisan, musician, dancer, etc.

Guest House: An accessory single-family dwelling on a lot available for short-term rental.

Historical Commission: The Historical Commission of Uwchlan Township. An advisory body charged with the review of applications regarding historic properties and overseeing the cataloguing of collections of historic Township records, documents, and memorabilia.

Historic Preservation Overlay District: Contains Class 1, 2, and 3 Historic Resources as shown on the Historic Resources Map and Inventory and defined within §612.3 herein.

Historic Resources Map & Inventory: A map adopted as part of this Ordinance and the Comprehensive Plan showing historic properties and their respective classifications.

Historic Structure: Any structure that is shown on the Historic Resources Map and Inventory and defined within §612.3 herein.

Inn: A commercial facility for the housing and feeding of guests.

Object: Man-made articles such as sculptures, monuments, boundary markers, statuary, and fountains, but not including trees and hedgerows.

§265-612 Historic preservation

§612.1 Intended purposes

§612.2 General provisions (revised requirements)

§612.3 Historic resources map and inventory (including classifications for Class 1, 2 & 3 resources)

§612.4 Demolition (in whole or part) of historic resources (revised standards)

§612.5 Standards for rehabilitation (revised requirements)

§612.6 Historic resource impact study (revised requirements)

§612.7 Special use provisions (new – use opportunities and bonuses)

§612.8 Integrity of historic setting (new)

§612.9 Landscaping (new, extra requirements)

§612.10 Residential open space option and planned single-family development (new-one extra lot for preservation)

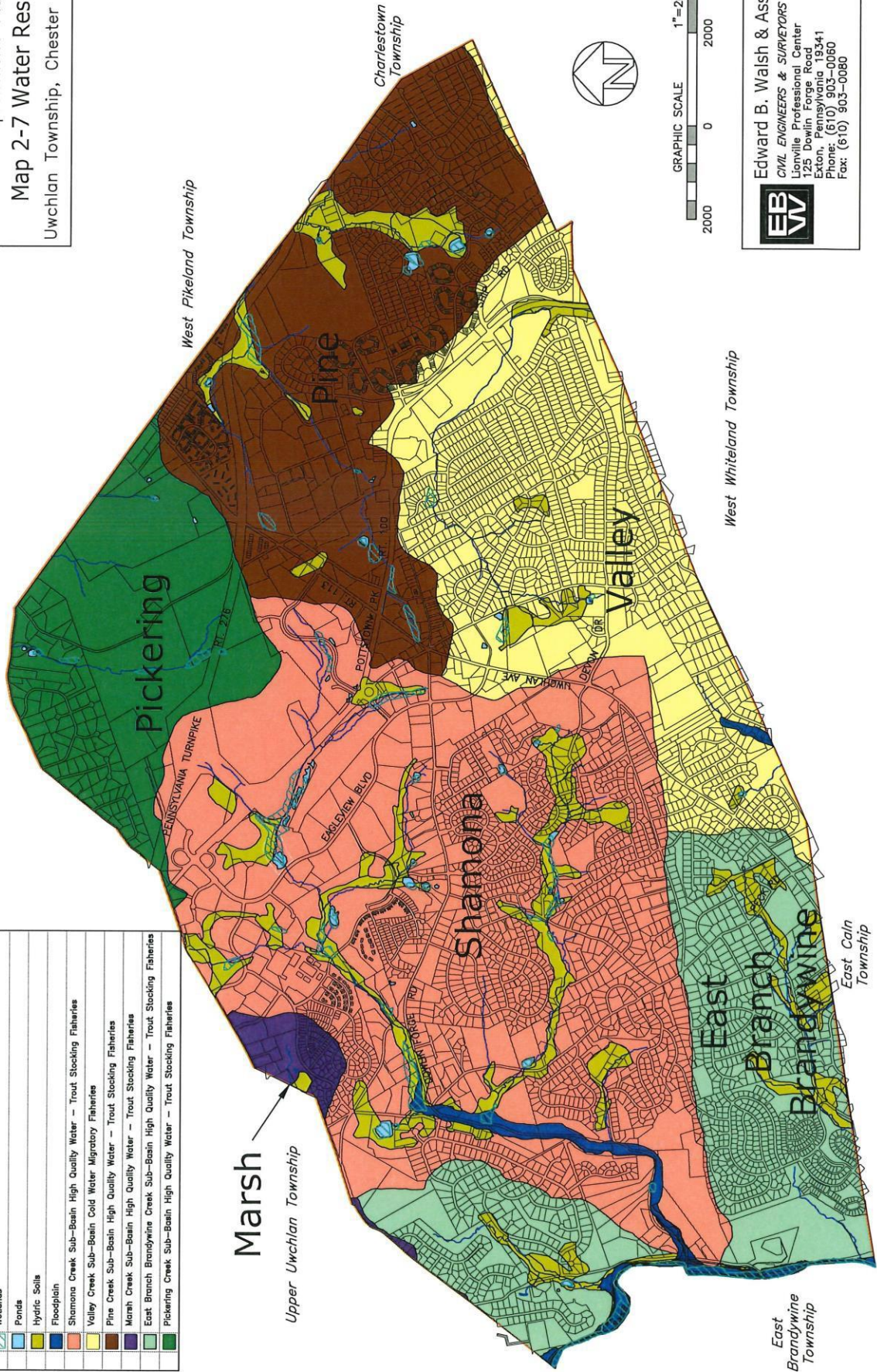
A new definition was added to Section 260-204 as part of the 2013 amendments to the SLDO, also implementing a short-range strategy outlined in the 2010 Plan Update, as follows:

Class 1 & 2 Historic Resource: Historic resources as defined in §612.3.a(1) and (2) respectively, of the Uwchlan Township Zoning Ordinance.

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2020 Comprehensive Plan Update
Map 2-7 Water Resources
 Uwchlan Township, Chester County, PA




Legend	
	Streams
	Wetlands
	Ponds
	Hydric Soils
	Floodplain
	Shamona Creek Sub-Basin High Quality Water - Trout Stocking Fisheries
	Valley Creek Sub-Basin Cold Water Migratory Fisheries
	Pine Creek Sub-Basin High Quality Water - Trout Stocking Fisheries
	Marsh Creek Sub-Basin High Quality Water - Trout Stocking Fisheries
	East Branch Brandywine Creek Sub-Basin High Quality Water - Trout Stocking Fisheries
	Pickering Creek Sub-Basin High Quality Water - Trout Stocking Fisheries

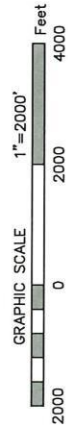


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Map 2-7
Water Resources (back)

2020 Comprehensive Plan Update
Map 2-8 Land Resources
 Uwchlan Township, Chester County, PA

Legend	
	Contours
	Woodlands
	Steep Slopes (15%+)



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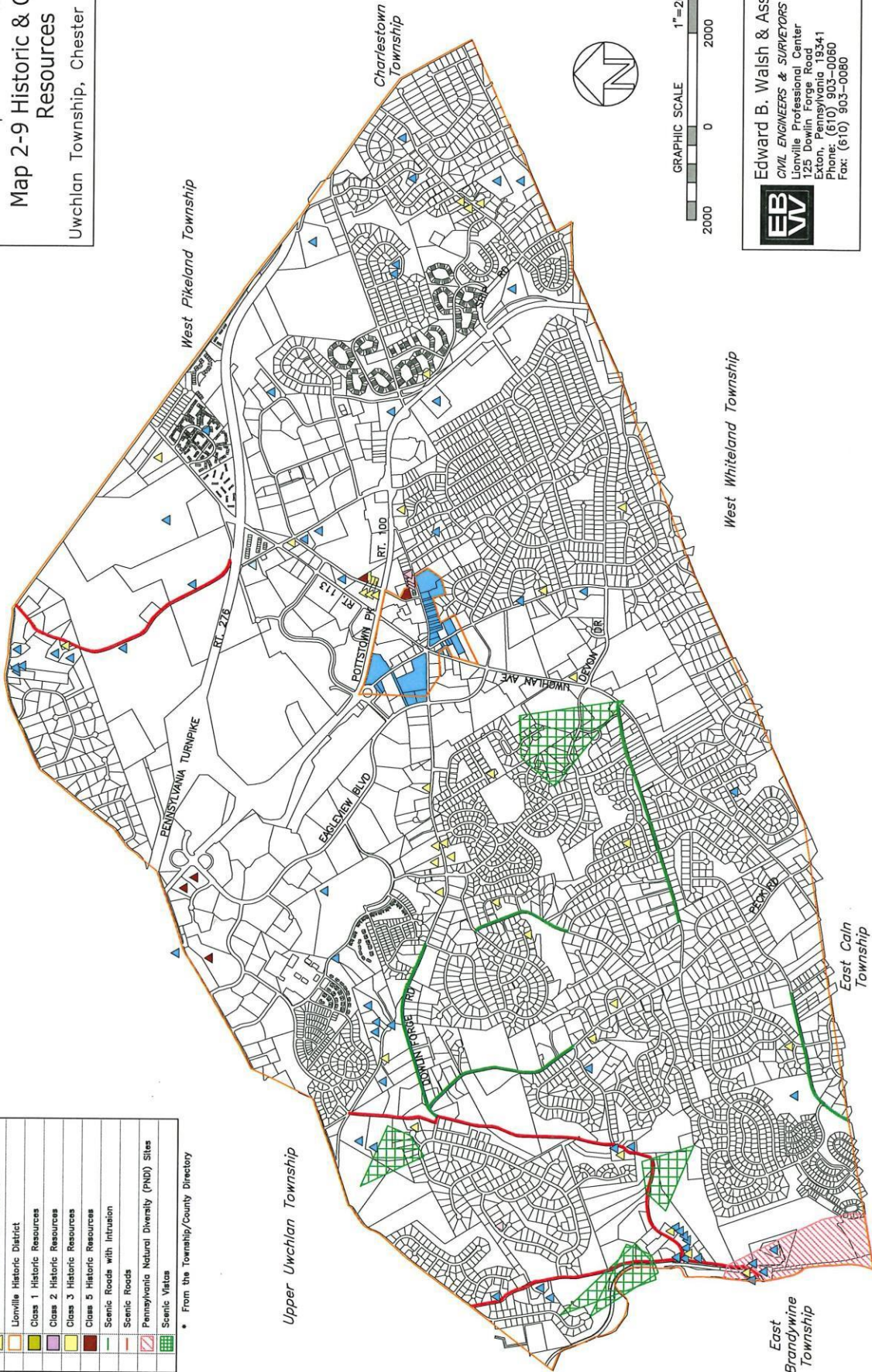


Map 2-8
Land Resources (back)

2020 Comprehensive Plan Update
Map 2-9 Historic & Cultural Resources
 Uwchlan Township, Chester County, PA

Legend	
	Historic Resource Points Class 1*
	Historic Resource Points Class 3*
	Lionville Historic District
	Class 1 Historic Resources
	Class 2 Historic Resources
	Class 3 Historic Resources
	Class 5 Historic Resources
	Scenic Roads with Intrusion
	Scenic Roads
	Pennsylvania Natural Diversity (PND) Sites
	Scenic Views

* From the Township/County Directory



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Map 2-9
Historic & Cultural Resources (back)

REGIONAL RELATIONSHIPS

REGIONAL ROLE

Located at the PA Turnpike interchange in the middle of a dynamic, growing region, the center of the Township (PA Routes 100 & 113) is 2.5 miles north of the crossroads of US Route 30 and PA Route 100, the intersection of the major north-south and east-west roads in Chester County that are not limited access highways. The distance to urban centers includes 16 miles to King of Prussia, 35 miles to Philadelphia, 25 miles to Wilmington, 37 miles to Lancaster, and 7½ miles to West Chester, the County seat.

The aforementioned highway system of the PA Turnpike, US Routes 30 and 202 and PA Route 100 place Uwchlan residents within a 30-45 minute drive of employment, shopping, entertainment, state, and national parks, a fact reinforced by the average time Township residents commute to work of 26 minutes.

Commuter rail stops at Exton, Whitford and Downingtown, all minutes away, provide AMTRAK and SEPTA to the main rail lines linking Philadelphia to Harrisburg with 30 minutes to one-hour commutes depending upon time of day. Connections at 30th Street Station place New York and Washington DC literally an hour away on AMTRAK.

Uwchlan is also an employment center, ranking 5th in the County as reported by the US Census in 2015 with 14,889 working in the Township, behind Tredyffrin, EastWhiteland, West Goshen, WestWhiteland.

As highlighted within the Community Facilities & Services section of this Chapter, the Township plays a significant role within the DASD, which in addition to Uwchlan, includes the Borough of Downingtown and the Townships of East Brandywine, East Caln, Upper Uwchlan, Wallace, West Bradford, and West Pikeland. As noted within both the Community Facilities & Services and Parks, Recreation & Open Space sections, six of the sixteen schools are located within Uwchlan: Downingtown East High School on Devon Drive; Lionville Middle School on Uwchlan Avenue; Marsh Creek Sixth Grade Center on Dorlan Mill Road; Lionville Elementary School on Uwchlan Avenue; Shamona Creek Elementary School on Dorlan Mill Road; and Uwchlan Hills Elementary School on Peck Road.

Due to the proximity of some of the region's major highways, as mentioned, Township residents are a few minutes away from both employment opportunities and shopping facilities. This advantageous location coupled with the Township facilities and services, such as extensive parks and trails, police, and public sewer and water, make Uwchlan an extremely attractive place to live.

SURROUNDING MUNICIPALITIES

Uwchlan is bordered by six townships: Upper Uwchlan and West Pikeland to the north; Charlestown to the east; West Whiteland and East Caln to the south; and East Brandywine to the west. Four of the six townships (East Brandywine, East Caln, Upper Uwchlan, West Pikeland) are also within the Downingtown Area School District. An overview of each municipality and its planning efforts follows.

Upper Uwchlan Township

Located north of Uwchlan, Upper Uwchlan forms its longest border (4 miles). Like Uwchlan, Upper Uwchlan was one of the most rapidly growing municipalities in the County over the last 20 years. PA Route 100, the main north-south road in the County, bisects the Township, while the PA Turnpike traversing the Township east-west also divides Upper Uwchlan. Residential developments of various unit types dominate the landscape with commercial and industrial uses located along the PA Route 100 Corridor. Upper Uwchlan is home to Marsh Creek State Park (described in Chapter 4), one of two state parks in Chester County. The Township contains one of the DASD elementary schools, Pickering Valley. The DVRPC estimated 2015 population was 11,545 persons with a density of 1.54 persons per acre. This estimate may be low given the ongoing development of hundreds of residential homes, both single and multi-family constructed.

The common border of Upper Uwchlan and Uwchlan consists of single family residential along Township Line Road (East and West) with the exception of the Eagleview office/industrial uses along Stockton and Constitution Drives and the commercial/industrial just east of the PA Turnpike. The 2002 Comprehensive Plan's Future Land Use Plan proposes the

following along the border with Uwchlan: Rural/Site Responsive (0.5-1 du/ac) from the East Branch of the Brandywine to Moore Road; Suburban/Site Responsive (1 du/ac) from Moore Road to Eagleview; Mixed Suburban (various uses) from Eagleview to just east of the PA Turnpike; and Suburban/Site Responsive for the balance of the border. The 2002 Zoning Ordinance depicts the following districts along the border with Uwchlan: LI-Limited Industrial adjacent to the East Branch; R1- Residential (2 acres) from the LI District to Moore Road permits single family; R2-Residential (1 acre) from Moore Road to Eagleview permits single family; PI-Planned Industrial/Office (Eagleview); C2-Limited Commercial from Eagleview to PA Route 100; C3-Highway Commercial between PA Route 100 and the PA Turnpike; LI-Limited Industrial just east of the PA Turnpike; and R2-Residential (1.5du/ac) with F2 Flexible Development Overlay for the balance of the border permitting various residential types at an increased density.

West Pikeland Township

West Pikeland forms the other half of the northern border with Uwchlan (2½ miles). The major roads, PA Routes 113 & 401, bisect the Township and essentially form quadrants, while the PA Turnpike crosses the southern corner. Residential development, agricultural, and undeveloped land form a patchwork of uses across West Pikeland, with the greatest density located on the southern portions adjacent to Uwchlan. The most rural and least developed of the abutting townships, West Pikeland had a 2015 population estimate of 4,085 persons with a density of 0.64 persons per acre.

Existing land uses along the border with Uwchlan consist of residential, open space, and agriculture. The Future Land Use Plan of the 2010 Comprehensive Plan proposes a Residential Growth Area (1-2 du/ac to 2-4 du/ac) along the entire boundary with Uwchlan. The 2005 Zoning Ordinance shows the entire common border zoned RD, Residential Development District (1-1.5 du/ac) which permits single family residential.

Charlestown Township

Charlestown is located to the east and forms the shortest border with Uwchlan (½ mile). PA Turnpike, PA Routes 401, 29 and Phoenixville Pike traverse the Township. Another rural and lesser developed abutting township, Charlestown's more dense areas of residential development are in the north, east and west corners with industrial and offices located south of the PA Turnpike adjacent to Phoenixville Pike. Over the past five years the southern portion of the Township, near Devault, has experienced larger mixed residential developments, which continue under construction today. Charlestown is the northernmost community in the Great Valley School District. The DVRPC estimated 2015 population of Charlestown was 5,690 persons with a density of 0.71 persons per acre. These numbers will rise given the aforementioned new development.

The common border consists of single-family detached residential. The Plan for Land Use of the 2001 Comprehensive Plan proposes Other Low & Moderate Intensity Development (1 du/2 ac), which is essentially residential with the use of Open Space Option encouraged. The Zoning Ordinance of 2006 shows the FR, Farm Residential and PRD-2 Districts (80,000sf) abutting Uwchlan, which permit single family residential.

West Whiteland Township

West Whiteland shares most of Uwchlan's southern border (3½ miles) and is equally centered among traffic corridors with US Route 30, PA Route 100, US Routes 30 and 202 interchange, and Exton Bypass all within its boundaries. The Township contains the Exton Mall, one of two regional shopping facilities in Chester County, as well as several other large shopping centers. In addition to the retail centers, the office and industrial parks along the US Route 30 corridor make West Whiteland a regional employment center, and like Uwchlan, a top three community in Chester County with 23,476 working in the Township. A portion of the former Church Farm School property continues to develop as a regional County/Township park. West Whiteland is the northernmost community of the West Area Chester School District. The 2015 population estimate was 18,450 and density of 2.23 persons per acre. The Township has roughly 1,300 multi-family projects approved and either under construction or awaiting construction to begin.

The existing land uses along the common border with Uwchlan include: mostly single family residential; the Weaver Pond open space; a small commercial use west of PA Route 100; and undeveloped slopes of the North Valley Hills, whether as part of development open space or the County/Township park. The Land Use Plan of the 1994 Comprehensive Plan proposes the following along the shared border: Low Density Residential (<2 du/ac) from the western edge of the Township to PA Route

100; Parks, Permanent Open Space & Resource Conservation along the PA Route 100 Corridor; Medium Density Residential (2-4 du/ac) between PA Route 100 and Ship Road; and alternating Low Density Residential and Parks, Permanent Open Space & Resource Conservation for the balance of the border. The Zoning Ordinance of 1998 shows the adjacent zoning districts to be: R-1 Residential (1 du/ac), permits single family residential, from the western edge of the Township to PA Route 100 and from Ship Road to the eastern edge; R-2 Residential (2 du/ac) between PA Route 100 and Ship Road; and NC, Neighborhood Commercial (30,000sf), permitting retail and office, located just west of PA Route 100.

East Caln Township

East Caln forms the smallest portion of Uwchlan's southern border (1¼ mile). Major roads within the Township include US Route 30 Bypass, Business Route 30, and PA Route 113. Although the smallest of the abutting townships, East Caln provides a diversity of land uses similar to its larger neighbors. A range of residential developments include single family dwellings, townhouses, and apartments. Regional commercial uses align Business 30, including shopping, restaurants, and movie theaters. The Township is home to Bishop Shanahan High School, the only Catholic high school in Chester County. All of the Downingtown Country Club and a portion of the Whitford Country Club are within East Caln. The 2015 DVRPC population estimate was 4,873 persons with a density of 2.06 persons per acre.

The common border consists mainly of single-family development and open space such as Madison at Williamsburg, along with commercial uses adjacent to PA Route 113 and floodplain adjacent to the East Branch of the Brandywine Creek. The 2012 Comprehensive Plan proposes the following uses on its Future Land Use Map along the border with Uwchlan: Recreation/Open Space from the East Branch to Williamsburg development; Low Density Residential from Williamsburg to Norwood Road; Medium Density Residential from the Norwood Road to Woodmont Drive; Mixed Use along PA 113 from Woodmont Drive to Whitford Hills Road; and Low Density Residential for the balance of the border to West Whiteland. The Zoning Ordinance of 1992, as amended to 2017 depicts the abutting land zoned as these districts: R-1 Single Family Detached Residential (1 acre) from the East Branch to Shelmire Road; R-4 Cluster Residential (0.8-1du/acre with 20,000sf lot area) from Shelmire Road to Norwood Road; R-2 Single Family Detached Residential (32,670sf-1 acre) from the Norwood Road to Woodmont Drive; OC-1, Office Commercial (2 acres) along PA 113 from just east of Woodmont Drive to Webb Road; and R-1 Single Family Detached Residential to the West Whiteland line.

East Brandywine Township

The boundary between East Brandywine and Uwchlan (1 2/3 mile) is formed by the East Branch of the Brandywine Creek. East Brandywine is predominately residential and agriculture, with some local convenience commercial within and adjacent to the villages of Guthriesville and Lyndell. One of the DASD elementary schools, Brandywine-Wallace, is located within East Brandywine. US Route 322, the major road through East Brandywine, traverses the Township from southeast to northwest; PA Route 282 winds along the East Branch. The 2015 population estimate was 8,295 persons and density 1.15 persons per acre.

As noted, the common border with Uwchlan consists of the East Branch of the Brandywine Creek; existing land uses include floodplain, undeveloped land, and one single family property. The Future Land Use Map of the 2009 Comprehensive Plan indicates the bordering land is planned for Residential (1 du/ac) and Residential or Protected Open Space north of Dorlan Mill Road and Protected Public & Institutional south of Dorlan Mill Road. The Zoning Ordinance of 1989, with amendments to 2015, shows the adjacent zoning to be the R-1 Residential District which permits: conventional single family residential with a 3 acre gross lot area and 55,00sf net lot area; and clustered residential development at 0.43du/net acre with a 30,000sf lot area.

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Inventory & Analysis Findings/Planning Implications
Population, Housing & Employment
<ul style="list-style-type: none"> • The Township has an estimated 18,757 people living in 6,982 housing units in 2017. • The rate of population increase has slowed in the past decade: 9% versus 45% average each decade from 1970 to 2000. • The two largest segments of the Township’s population are: 45-54 year olds (15.8%) and 55-64 year olds (14.3%). • Township population is slightly younger as the median age was 39.5 in 2010 versus 38.6 in 2017 with the percent of people who are 55 years and above however increasing from 22.1% in 2010 to 26.4% in 2017. • Township residents are well educated with 63.7% of those 25+ holding at least a bachelor’s degree. • Residents have a higher median family income (\$130,610) than DASD (\$129,705) and Chester County (\$108,663). • The percentage of owner-occupied housing decreased between 2000 and 2017 from 82% to 78%, while the percentage of renter occupied housing increased from 18% to 22%. • The percentage of single-family detached housing decreased between 2000 and 2017 from 66% to 61%, consequently the percentage of attached/multi-family housing increased from 33% to 38%. • About 53% of those over persons over 16 are in the workforce in 2017. • In 2017, just over 55% of workers are employed in management, professional and related jobs, which is more than the next two occupation categories combined (service/sales and office jobs). • In 2017, 82.4% of workers drove alone to their place of business, a slightly higher percentage than DASD and County, while 8.5% walked or biked to work or worked at home.
Existing Development & Land Use Pattern
<ul style="list-style-type: none"> • Residential land area increased slightly between 2010 and 2019: 18 acres of single-family (Turnbury development and Newcomen Road) and 4 acres of multi-family (Eagleview). • Commercial land area increased 32 acres between 2010 and 2019; generally, in and around Eagleview. • An additional school (Marsh Creek 6th Grade Center) was built between 2010 and 2019 on lands owned by DASD. • Park/open space land increased slightly between 2010 and 2019 based upon the open space within Turnbury. • Significant development potential exists on lands north of PA Route 100/PA Turnpike and west of PA Route 113 regardless of zoning.
Community Facilities & Services
<ul style="list-style-type: none"> • School District enrollment continues to increase, while the proportion of Uwchlan resident enrollment is decreasing. • The aforementioned Marsh Creek 6th Grade Center was constructed. • Enforcement of the MS4 Program began with the adoption of the new stormwater management regulations in 2013.
Parks, Recreation & Open Space
<ul style="list-style-type: none"> • Northern portion of Township is not adequately served by recreation and/or open space opportunities. • Other than the “triangle” between PA Route 113 and the PA Turnpike, walkways/trails do not exist north of the PA Turnpike.
Traffic & Circulation
<ul style="list-style-type: none"> • The existing functional classification of the roads within the Township reflects current conditions. • The Uwchlan Trail was augmented by 3 miles of new walkway and another mile of walkway was built within development between 2010 and 2019; the northern portion of the Township remains underserved as noted above.

Natural & Historic Resources

- Those recommended actions of the 2010 CP that were implemented by amendments to the ZO and SLDO, as noted herein, will have a positive impact upon natural and historic preservation of undeveloped lands, particularly those in the northern portion of the Township.
- As listed above, enforcement of compliance with the PADEP MS4 Program continues as part the 2013 amendment to Chapter 214, Stormwater Management, of the Township Code, which facilitates drainage and improves waterquality.
- In addition to the MS4 Program explore other methods (ordinance and programs) that improve stream quality.
- Significant historic resources are located throughout the Township that warrant continued efforts to secure their preservation and protection such as those ZO and SLDO regulations adopted by the Township in 2013.
- The Board of Supervisors established the Environmental Advisory Council in April 2018.

Regional Relationships

- Uwchlan continues to be a major employment center within the County, ranking fifth as reported by the US Census in 2015 with 14,889 working in the Township.
- As highlighted throughout this Chapter, the Township plays a significant role within the DASD, with six of the sixteen schools located in Uwchlan.

Relationship to *Landscapes3*

- The existing commercial, office, industrial development located along PA Route 100 between the PA Turnpike and Lionville corresponds to the Suburban Center Growth Area located in the Lionville area, adjacent to the PA Turnpike, PA Route 100, and PA Route 113 of *Landscapes3*.
- The existing residential development located within most of the balance of the Township corresponds to the Suburban Landscape Growth Area of *Landscapes3*.
- The lower intensity development and preserved open space along the western edge of the Township is consistent with the Rural Resource-Rural Landscape and Natural Landscape Overlay of *Landscapes3*.

CHAPTER 3

GOALS & OBJECTIVES

The purpose of this chapter of the Plan Update is to reinforce current goals and objectives of the Township as well as articulate new ones in terms of planning for conservation and development. Based upon the inventory, analysis, and findings of Chapter 2, the goals and supporting objectives serve as the framework for creating the individual plan elements within Uwchlan: land use; community facilities and services; parks, recreation and open space; traffic and circulation; housing; natural and cultural resources; and energy conservation. In addition to the preceding plan elements, consistency with the County's Comprehensive Plan - *Landscapes3* will be discussed. Notwithstanding the aforementioned Chapter 2 inventory, analysis, and findings as well as consistency with *Landscapes3*, results of the Community Surveys undertaken by the Township will provide additional insight in formulating the goals and objectives of this Chapter.

Goals are general statements that reflect what Uwchlan desires to achieve in terms of: Township character; land use; circulation; community facilities; parks, recreation, and open space; housing; environmental and historic resources; and regional role. Once these goals are formed, they represent a context within which decisions can be made regarding the aforementioned plan elements. Each goal is then supported by more specific objectives that are aimed at addressing the stated goal. These goals and objectives will be followed by statements of specific short and long-range implementing strategies within each plan element in Chapter 4.

COMMUNITY DEVELOPMENT GOALS & OBJECTIVES

The MPC has established the basic requirements for a Comprehensive Plan, the first of which is a statement of community goals and objectives (Section 301):

"The Comprehensive Plan, consisting of maps, charts and textual matter, shall include, but need not be limited to, the following basic elements: (1) A statement of objectives of the municipality concerning its future development, including, but not limited to, the location, character and timing of future development, that may serve as a statement of community development objectives as provided in Section 606 (Zoning) "

The overriding guiding principle that went in to the preparation of this Comprehensive Plan Update ~~continues to be~~ *is* as follows:

"Provide for orderly and sustainable development in a manner that will enhance Uwchlan and protect the health, safety, and welfare of all persons residing in the Township."

PLAN FOR LAND USE GOAL

Realize a future overall development pattern that is naturally sustainable and generally consistent with the existing pattern, accommodating attractive redevelopment and supporting economic opportunity while preserving the character of the Township.

Plan for Land Use Overall Objectives

- Identify locations for suburban development that can be efficiently served by the necessary infrastructure.
- Support and expand, where appropriate, residential neighborhoods which include a variety of dwelling types that complement one another, to create a sense of place and reduce the potential for conflicts between different uses.
- Locate commercial and industrial uses in areas of the Township where the impact of such uses on adjacent land uses and Township residents will be minimized.
- Preserve natural resources by protecting areas of floodplain, wetland, riparian buffers, and steep slope and conserving areas of woodland and open space.
- Include 'placemaking' in the review of plans for future development/redevelopment a means to enhance the Township's identity/culture.
- Create a focus on conservation land use principles within revised land use related ordinances.
- Monitor existing and future pipeline activity and enact, where feasible, regulations complimentary to the Pennsylvania Oil & Gas Act, as amended, Pennsylvania case law, and the Federal Energy Regulatory Commission designed to protect the public health, safety and welfare and regulate land uses in conformance with the PA MPC, Act 247, as amended.

PLAN FOR COMMUNITY FACILITIES & SERVICES GOAL

Provide public services, facilities, and utilities in the most cost effective and environmentally sensitive manner, taking into account the existing and future residential and non-residential needs of the Township.

Plan for Community Facilities & Services Objectives

- Create and implement a community facilities plan that meets both the needs of residents and the fiscal capacity of the Township.
- Provide adequate fire, ambulance and police protection and other community facilities, utilities and services to assure the welfare and safety of Township residents.
- Provide adequate stormwater management facilities for the protection and preservation of existing and future water supply, both surface and subsurface, and the protection of private and public property.
- Promote efforts to educate residents, government officials, and business community about those existing emergency services, other community facilities, and utilities available as well as stormwater management measures underway.

PLAN FOR PARKS, RECREATION & OPEN SPACE GOAL

Establish additional recreation sites and develop additional recreational facilities at appropriate existing parks to increase diversity, expand recreational opportunities and help meet active and other recreation needs while conserving the Township's sensitive natural resources and preserving undeveloped land.

Plan for Parks & Recreation Objectives

- Provide a balance of active and passive recreational areas and facilities for the enjoyment of individuals, groups, and families of all ages who live in the Township at the lowest reasonable costs to Township residents.
- Promote varied and diverse recreational programs within the Township.
- Promote the maintenance and enhancement of existing parks and recreational areas within the Township.
- Provide pedestrian linkage between parks and open space sites within the Township.
- Provide trail signage with "wayfinding".
- Continue to offer park and recreation programs for all residents under the administration of the Park and Recreation Board.
- Develop a plan for park utilization and maintenance.
- Increase ADA accessibility within all parks and for all recreation programs.
- Continue to promote efforts to educate residents, government officials and the business community about the parks and recreation programs offered by the Township.

Plan for Open Space Objectives

- Continue to preserve open space through the implementation of zoning provisions such as the Residential Open Space Option.
- Include open space for passive recreation, walkways, and preservation of stream/creek valleys in keeping with the County Open Space recommendations.
- Develop and/or maintain standards and guidelines for the conservation of open space.
- Promote the planting of native trees and plants in open spaces, and brownfield sites.
- Protect woodlands within open space from invasive pests and perform periodic maintenance to remove invasive plant species.
- Continue to provide ADA accessibility within all public open space areas as appropriate given physical conditions.
- Continue to promote educating residents, government officials and the business community about the open space preservation efforts undertaken by the Township.

PLAN FOR TRAFFIC & CIRCULATION GOAL

Achieve a safe and efficient transportation system that is compatible with the historic, natural and developed areas of Uwchlan Township and that provides viable transportation alternatives, including electric vehicles, biking, walking and public transportation.

Plan for Traffic & Circulation Objectives

- Support the establishment of arterial highways that can carry anticipated through traffic volumes and provide access to major traffic generators, both in the Township and in areas serving the Township.
- Ensure that access to these arterial highways is carefully controlled to prevent conflicts between local and arterial traffic.
- Provide Township residents with at least two alternative routes to major highways.
- Facilitate a system of collector roads that can efficiently carry local traffic between residential areas, and to and from arterial highways through the subdivision and land development process.
- Maintain the local nature of residential streets, thereby reducing the impact of high-speed, high-volume traffic on residential areas.
- Require the provision of sufficient off-street parking facilities to make it possible to use the entire paved surface of high-cost roadways to carry vehicular traffic.
- Support a balanced system of transportation and transit facilities in order to maximize energy conservation and to meet the different needs of people, business and industry.
- Support the implementation of “new technology” items within the traffic and circulation system.
- Identify additional road linkages to be constructed in concert with development and redevelopment of land that would enhance circulation and access to arterial and collector roads.
- Support bicycle and pedestrian friendly roadway and trail design.
- Encourage upgraded public transportation service and opportunities for multimodal integration allowing for easy switching from one mode of transportation (pedestrian, bicycle, automobile, bus) to another.

PLAN FOR HOUSING GOAL

Continue to promote a sound housing stock for Township residents and a diversity of housing that will meet the needs of all households, in harmony with the character of existing residential neighborhoods and the Township’s historical and natural environments.

Plan for Housing Objectives

- Facilitate a range of housing types, sizes, and price levels, to respond to changing housing needs and to provide housing for various stages of the life cycle, household configurations, and income levels, and work force dwellings.
- Encourage, and where appropriate, require the correction of areas of blight and substandard conditions so that they contribute to the overall value of the Township and well-being of Township residents.

PLAN FOR NATURAL & HISTORIC RESOURCES GOAL

Protect and enhance the natural environment of Uwchlan while preserving the Township’s historic resources and character-defining features.

Plan for Natural Resources Objectives

- Continue to preserve environmentally sensitive natural resources and open space areas of the Township’s ecosystems noteworthy for physical, historic, cultural, recreational, or scenic quality such as woodlands, wetlands, surface waters, floodplains, high quality watersheds, riparian corridors, groundwater recharge, steep slopes, aquatic and wildlife habitats and natural heritages areas.
- Confirm mapping efforts to date regarding environmental resources such as floodplains, wetlands, hydric soils slopes 15 to 25%, slopes 25%+, riparian buffers, and woodlands, and update where necessary.
- Support regional natural resource protection efforts, and promote a resource-based planning approach.
- Continue promoting the education of residents, government officials and the business community about natural feature preservation efforts and techniques.

Plan for Historic Resources Objectives

- Collaborate with the Historical Commission (UTHC) to continue identifying historic resources, potential historic districts, alterations of historic resources, and measures to mitigate the impact of development upon historic resources.
- Establish an effective program of historic preservation with the joint participation of individual citizens, interested civic groups and all levels of government regarding contact, awareness, and research of resources.
- Continue to enforce the Historic Preservation Ordinance as enacted and update as needed.
- Update the Historical Resources Inventory (both text and mapping) as new information arises.

PLAN FOR ENERGY CONSERVATION, WASTE REDUCTION, REUSE & RECYCLING GOAL

Promote current and innovative measures of energy conservation, waste reduction, reuse, and recycling.

Plan for Energy Conservation Objectives

- Encourage the development, distribution, and use of alternative fuels and energy sources, with a preference for those energy sources that are renewable, sustainable and locally-generated.
- Encourage upgrades to government facilities, utilities and public infrastructure that will promote energy efficiency, and the distribution and use of alternate fuels and energy sources, as they become available.
- Promote energy efficiency and the reduction of energy demand and consumption in the use of vehicles, and the design and construction of motorized and non-motorized transportation infrastructure.
- Support the development and use of energy efficient technologies, as they become available, in farming, manufacturing, industrial processes and activities and other economic development activities.
- Promote energy efficiency standards, such as Leadership in Energy and Environmental Design (LEED) and Energy Star certification for the development or redevelopment of buildings, properties, and neighborhoods.
- Promote the design and construction of subdivision and land development utilizing energy efficient “Green” technologies, as they become available.
- Promote efforts to educate residents, government officials and the business community about energy conservation technology and techniques, through public outreach and demonstration projects.

Plan for Waste Reduction, Reuse & Recycling Objectives

- Encourage reducing the use of single-plastics.
- Support organizing community pickups for waste streams that can be removed from municipal trash (i.e., old paints, plastics, cardboards, clothing, electronics, and household donations not typically picked up).
- Encourage education on composting and the reuse of items.
- Support incentives to use reusable bags for shopping, and donation of clothing/household items.
- Promote the reuse of existing resources including redevelopment; the restoration of brownfields and greyfields; and allowance for new technologies to be utilized in recycling and waste management.
- Evaluate providing reusable and recyclable materials (i.e., trash bags and shopping bags) to residents and businesses.
- Continue to provide recycling within the Township and community events.

CHAPTER 4

PLAN ELEMENTS & IMPLEMENTATION STRATEGIES

The following Plan Elements are contained within this chapter: Land Use; Community Facilities & Services; Parks, Recreation & Open Space; Traffic & Circulation; Housing; Natural & Historic Resources; and Energy Conservation, Waste Reduction, Reuse & Recycling. Each of these Plan Elements establishes overall planning directions and contains both short and long-range strategies as well as ongoing strategies proposed to implement the stated direction. Chapter 4 concludes with a discussion of the interrelationship of each Plan Element, both within the Township and those adjacent municipalities within the region.

PLAN FOR LAND USE

The overall intent of the Plan for Land Use is to propose a sustainable future land use pattern consistent with the existing development pattern of Uwchlan. Chapter 1, Introduction & Past Planning Policy, highlights the composition of the Plan for Land Use stated within the Municipalities Planning Code (MPC) as follows: *“A plan for land use, which may include provisions for the amount, intensity, character and timing of land use proposed for residence, industry, business, agriculture, major traffic and transit facilities, utilities, community facilities, public grounds, parks and recreation, preservation of prime agricultural lands, flood plains and other areas of special hazards and other similar uses.”*

The MPC also requires *“A discussion of short- and long-range plan implementation strategies, which may include implications for capital improvements programming, new or updated development regulations, and the identification of public funds potentially available.”* As proposed within the previous Comprehensive Plan Update and successfully implemented in subsequent ordinance amendments, this Plan for Land Use is divided into two parts - the Plan itself, followed by implementation strategies for the planning components discussed. For this planning effort the implementation strategies are grouped into three categories: short-range, long-range, and ongoing. Short-range implementation strategies for this land use component relate to more immediate tasks undertaken to affect such actions. Long-range implementation strategies involve anticipated actions to be accommodated once the short-range strategies are completed up to an approximate 10-year timeframe. Ongoing strategies involve continued activity on a particular recommended action. This Plan is not limited to a particular number of years, but as the timeframe within which a comprehensive plan is useful varies, it must be evaluated every ten years as specified by the MPC. As the ten-year timeframe approaches, the Township must judge the viability of the document and update the information as available. The last Comprehensive Plan update was in 2010.

Understanding the relationship between the Plan for Land Use and the land use regulations of the Township is essential. The Plan for Land Use represents long range goals and provides the framework for decisions relative to land use regulations. Land use regulations, such as zoning and subdivision ordinances, building and housing codes, are more immediate in nature. They are designed to address and guide existing conditions toward those patterns highlighted by the Plan for Land Use. Refined and/or amended regulations are ultimately the means to attain the goals, objectives and implementing strategies of the Plan for Land Use.

DEVELOPING THE PLAN FOR LAND USE

Establishing the Plan for Land Use involves weighing several factors that include the following: natural and historic resources; existing development pattern; Township goals and objectives; accessibility to transportation and services; and population forecasts. While these factors are not new to the planning process in Uwchlan, taken collectively they form a basis for creating the recommended plan for land use with both short and long-range strategies for creative new development and potential redevelopment. Due to the successful implementation of most short and long-range strategies of the Plan for Land Use within the 2010 Comprehensive Plan Update, this 2019 Update continues such a concept as previously stated.

Natural & Historic Resources

The resource mapping of Chapter 2, Inventory & Analysis, highlights areas containing features that limit development and warrant special consideration through the planning process. The reaffirmation of those natural and historic resources highlighted as significant areas of preservation within this Plan for Land Use establishes some parameters for those few

properties that remain undeveloped and future activity they could potentially sustain. Highlights of the natural and historic resources inventory include the following:

- *Floodplain, wetland/hydric soils and riparian buffers comprise 428 acres (6.4%) of the Township with 258 acres (3.9%) outside of lands owned by public entities;*
- *Steep slope in excess of 15% comprises 1,026 acres (15.4%) of the Township with 131 acres (2.0%) outside of lands owned by public entities.*
- *458 structures within the Township were built prior to 1960 and about 140 may be historically significant.*

Existing Land Use

The existing development pattern, as outlined in Chapter 2 and shown on Map 2-1, serves as the “man-made” framework that guides future development patterns. Approximately 11.6% of Uwchlan remains either undeveloped, in agriculture, and/or capable of further development (see Tables 4-1 & 4-2). Highlights of the existing development pattern include:

- *Residential is located mainly west of Route 100, and east of Route 100 on both sides of Worthington Road south to Valley Hill Road. Two smaller areas located on south side of East Township Line/Byers Roads; and triangle bounded by Route 113, PA Turnpike, and West Pikeland.*
- *Commercial/office uses are generally located along Route 100, Route 113, Eagleview Boulevard, and the Eagleview Town Center.*
- *Industrial uses continue to be located within Pickering Creek Industrial Park.*
- *Community facilities are mainly located in the southern portion of the Township in Lionville, along or near Route 113 from Lionville south, and along or near Route 100 south.*
- *Parks and open space are located south/west of Route 100, except Rhondda and areas in the southeast corner of the Township.*
- *The Lionville Historic District encompasses a collection of structures that comprise the earliest settlement in the Township.*
- *Agriculture continues on four properties located north of the PA Turnpike and west of Route 113 (one preserved under a conservation easement), one property east of Route 100 at the PA Turnpike Interchange, and a property on the north side of Worthington Road.*
- *Eight petroleum/natural gas product transmission lines traverse Uwchlan (Laurel Pipeline Co/Buckeye Partners, Sunoco Pipeline/Energy Transfer, TE Products Pipeline Co, LP/Enterprise Partners LP, Texas Eastern Transmission Co/Duke/Spectra Energy- Enbridge, & TransCanada/Columbia Gas) generally in a north-south direction.*
- *The amount of land in Uwchlan that remains undeveloped is limited and most of the available land is zoned for non-residential uses.*

Population Forecasts

Population forecasts are essential in analyzing future land use needs. Adequate provisions for new development are established by anticipating future development and providing land use allocations that meet forecasted populations. As noted in the Inventory & Analysis, the U.S. Census Bureau through the DVRPC and CCPC released, in July 2016, an estimate for the Township population of 19,072. DVRPC also prepared population forecasts in 2016 for the Township through 2045 as listed in Table 2-2. The DVRPC forecasts of 19,763 by 2020, 21,149 by 2030, and 22,251 by 2040 show an increase over the next three decades of 9.3%, 7.0% and 5.2%. Development activity within Uwchlan has slowed over the past 10 year. As listed in Chapter 2, building permits and ultimately residential occupancy permits issued from 2010 to 2019 were for 267 dwellings, which yield 668 persons, or a preliminary population of 18,756 in 2019. Applying the natural increase rate of 1.19 persons/1,000 to the 2010 population, and projecting it to 2020, yields 216 people, which added to the 18,756, results in 18,972. Table 4-1, Developable Land-Residential Build-out Scenario, reports 1,293 persons as the potential maximum in-migration permitted by current zoning and properties under development. Not all remaining residentially zoned parcels in the Township will be developed during one decade, but splitting the 1,293 into 50% (646) for each subsequent decade, 2030 and 2040, accounts for reasonable estimates without any rezoning. The 2030 and 2040 estimates of 19,618 (18,972+646) and 20,264 (19,618+646) are further modified by a corresponding natural increase: 19,852 (19,618+234(10 x 1.19=11.9 x 19.618=234)) for the 2030 population; and 20,501 (20,264+237 (10 x 1.19=11.9 x 19.852=237)) for the 2040 population. Although 6.7-8.6% greater than the above calculation, the DVRPC forecasts reflect a similar reduced rate of development. Even this rate of growth may be high given the limited amount of undeveloped residential land remaining in the Township, however any zoning change to increase density or nonresidential land rezoned to residential would significantly alter the forecasted rate.

Recently the U.S. Census Bureau via the ACS Demographic and Housing Estimates released 2013-2017 ACS Community Survey 5-year Estimates. Included with the data are estimates for Uwchlan as follows:

Total Population: 18,757 persons w/breakdown of 9,402 males & 9,355 females	Dwelling unit Breakdown:
Median Age of 38.6	1-unit structures – 81.6%
Total Housing Units – 7,026	2 or more-unit structures – 17.2%
Total Households – 6,827	mobile homes or other types of units – 1.1%
Average Household Size – 2.75	
Total families – 5,094	
Average family size 3.19	

Township Goals & Objectives

Chapter 3, Goals & Objectives, includes seven general goals each with specific objectives that guide desired growth and development of the Township in terms of: land use; community facilities and services; parks, recreation, and open space; traffic and circulation; housing; natural and historic resources; and energy conservation, waste reduction, reuse, and recycling. An overriding goal for Uwchlan continues to be – ‘Provide for orderly and sustainable development in a manner that will enhance the Township and protect the health, safety, and welfare of all persons residing in Uwchlan.’

Public Policy Context & Legal Requirements

As the Township has done in the past, allocating future land uses will continue to focus on the current practice of providing a variety of land uses and housing types as required by the enabling legislation, §604(4-5) of the MPC. A mix of residential densities and the provision for commercial, industrial, and community facilities need to be considered in formulating land use policy decisions. The range of dwelling unit types provided will be described within the Plan for Housing later in this Chapter.

Accessibility

Accessibility to transportation systems, community facilities and services is important in guiding future development. As discussed in Chapter 2, Inventory & Analysis, the location of the PA Turnpike Interchange and PA Routes 110 and 113 within Uwchlan, along with its proximity to commuter rail stops at Exton, Whitford, and Downingtown place Township residents a few minutes away from major employment opportunities and shopping facilities within the Delaware Valley. Additionally, six of the sixteen schools of the Downingtown Area School District are located within Uwchlan. This advantageous location, coupled with the Township facilities and services such as extensive parks and trail networks and available public sewer and water, make Uwchlan an extremely attractive place to live. The Plan for Community Facilities & Utilities and the Plan for Traffic & Circulation project the community facilities and transportation systems of the Township in much greater detail, particularly their relationship with the Plan for Land Use.

Past Plan for Land Use

Past planning efforts also provide the framework for creating this Plan for Land Use. The 2010 Plan for Land Use included the following categories that coincide with those undeveloped parcels depicted on Tables 4-1 and 4-2 herein.

Residential Land Use

Residential land uses were divided into three separate categories based on density.

Low Density Residential

Most of the areas proposed for Low Density Residential uses are already developed. The undeveloped areas proposed for Low Density Residential are described below, whether developable or not and shown on Table 4-1.

Areas coinciding with the RA District:

Seven parcels totaling 44 acres that could be further developed to collectively accommodate 26 single family detached dwellings.

Areas coinciding with the RR District:

One undeveloped parcel of 16 acres that is too constrained for development due to floodplain, wetland, steep slope, and limited access; and

Two adjacent parcels totaling about 12 acres that could be further developed to accommodate 35 mobile homes.

Medium Density Residential

Like Low Density Residential, most of the areas proposed for Medium Density Residential uses are already developed. The undeveloped areas proposed for Medium Density Residential are described below, whether developable or not and shown on Table 4-1.

Areas coinciding with the R-1 District:

One undeveloped parcel of 71 acres that due to both natural and manmade constraints, could be developed to accommodate 85 single family detached dwellings.

Six parcels totaling 86 acres that could be further developed to collectively accommodate 41 single family detached dwellings due to natural constraints such as floodplain, wetland, and steep slope.

High Density Residential

Although developed under a different zoning district (see the PCID discussion in Chapter 1), the Eagleview residential areas would also fit into this land use category. There are no undeveloped areas proposed for High Density Residential, as the two “undeveloped parcels” within the Eagleview Town Center totaling 9 acres highlighted in the 2010 Plan have been developed as 210 senior apartments and 80 condominiums. One Eagleview parcel is currently under development, below.

Area coinciding with the PCID District:

Lot 24 of Eagleview currently under development for a 288-unit life care facility which could potentially yield 468 persons and generate 1,673 daily and 150 peak hour trips.

Commercial

Undeveloped areas proposed for Commercial are described below, whether developable or not and shown on Table 4-2.

Areas coinciding with the PC District:

Five parcels totaling 32 acres that could be developed to collectively total 125,000+sf of office/retail and 1 restaurant, due to natural constraints such as floodplain and wetland.

One undeveloped parcel of 5 acres that due to PADOT ownership is not currently available for development.

Area coinciding with the PC-2 District:

One undeveloped parcel of 4 acres that due to PADOT ownership is not currently available for development.

Commercial/Industrial

The largest area of undeveloped land within the Township is proposed for Commercial/Industrial, approximately 489 acres. The area includes the balance of Eagleview Corporate Center and the Town Center, Happy Days Farm at Route 100 and PA Turnpike, the balance of Stoneridge at Route 100, the School District property on Lionville Station Road, and parcels on Haywood Drive. The undeveloped areas proposed for Commercial/Industrial are described below, whether developable or not, and shown on Table 4-2.

Areas coinciding with the PIC District:

Five parcels totaling 412 acres that could be developed to collectively total 3,665,000sf of office and 500,000sf of retail, due to natural constraints such as floodplain, wetland, and steep slope.

Areas coinciding with the PCID District:

Three undeveloped parcels totaling 21 acres could be developed to collectively total 142,000sf of office/flex due to natural constraints such as floodplain, wetland, and steep slope.

Industrial

This category is comprised primarily of light industrial uses. The area planned for Industrial land use is bounded on the north and east by Route 113 and the PA Turnpike, on the west by Gordon Drive, on the south by the uses along Pickering Way and basically encompasses the Pickering Creek Industrial Park.

Area coinciding with the PI, Planned Industrial District:

Two undeveloped parcels totaling 39 acres are located within the Industrial land use category and shown on Table 4-2, but are relatively constrained with steep and wetland along with limited access to each.

Community Facilities

This category is comprised of public and private institutional uses, educational facilities, public utility facilities, religious and civic facilities, cemeteries, emergency service facilities, and Township buildings and grounds. The locations of such uses on the Plan for Land Use reflect, for the most part, the existing public/quasi-public uses in the Township. Two of the

school properties accommodated expansion since the 2010 Plan as discussed in Chapter 2 and are designated such: the Marsh Creek Sixth Grade Center (adjacent to Shamona Creek Elementary); and Uwchlan Hill Elementary currently undergoing expansion. The Plan for Community Facilities & Utilities lists the community facilities of the Township in greater detail, particularly their relationship with the Plan for Land Use.

Parks & Open Space

This land use category includes the Township parks and open space whether owned by an HOA or the Township some of which contain environmentally sensitive areas as well as historic and archaeological resources. The Parks & Open Space category is not only an integral part of the character of Uwchlan, but the services and facilities provided by the Township. Two properties that would generate larger areas to consider for potential parks and open space include the DASD, Nelson/Vanguard, and Gray parcels (see Map 4-3). The Plan for Parks, Recreation & Open Space and the Plan for Natural & Historic Resources provide greater detail as to the ongoing preservation of these lands, particularly their relationship with the Plan for Land Use.

Lionville Plan

An existing mix of residential and commercial land uses characterizes the Lionville Area of the Township. The Village of Lionville itself has been absorbed and almost an afterthought with the influx of commercial and service uses. The rejuvenation and re-establishment of the identity of the Village of Lionville through careful study and thoughtful planning proposals should be considered as a follow-up study/plan. The creation of a “town center” district or overlay is recommended within the Implementation Strategies which follows as part of a “Lionville Plan”.

The “Lionville Plan” would be a guide for the future development and public improvement of most of the contiguous commercially zoned areas in the vicinity of the Village of Lionville. The Plan would include landscape, streetscape, and park recommendations along with pedestrian circulation improvements to make this an attractive, pedestrian friendly place for residents to work, shop, and recreate. This unified design theme would be reviewed and approved by the Historical Commission and include specific recommendations for details such as street trees, signage, setback requirements, sidewalk(s) throughout, crosswalks, pocket parks, benches, trash receptacles, lighting, and intersection treatments.

PA Route 100 Corridor

PA Route 100 is the most significant north-south corridor in Uwchlan and Chester County as demonstrated by regional uses, traffic volumes, travel lanes, and limited access points within the Township. Opportunities continue to exist along Route 100 within the Township for the development to occur on the following:

- large undeveloped tracts;
- smaller infill properties;
- underdeveloped properties; and
- redevelopment of certain properties.

As such, the creation of a PA Route 100 Corridor Overlay is recommended within the Implementation Strategies which follows that considers multi-use concepts, single use projects, redevelopment, and/or rezoning opportunities.

PA Route 113 Corridor

Although neither carrying the traffic volumes nor the limited access points as Route 100, PA Route 113 is the most important east-west road in Uwchlan. Development opportunities exist both north and south of Route 100 for new uses on and infill on parcels. The creation of a PA Route 113 Corridor Overlay is recommended within the Implementation Strategies which follows that considers multi-use concepts, single use projects, redevelopment, and potential rezoning opportunities.

TABLE 4-1 PLAN FOR LAND USE, DEVELOPABLE LAND, 2020 – RESIDENTIAL BUILD-OUT SCENARIO

MAP #	ACRES	TAX ID	OWNER	HISTORIC RESOURCE	PROPOSED USE	ZONING	CONSTRAINT	LOCATION	DEVELOPMENT	PERSONS
231.6									187 DU	645
1	16.2	1-28 (po)	DASD	N/A	Low density	RR	floodplain/wetland/slope	Lionville Station	0 DU	0
2	11.7	2.1, 2.16	RGD Land Corp	N/A	Low density	RR	floodplain/ wetland	Rt 113	35 MH	98
3	9.5	5-22	PA Turnpike Commission	N/A	Medium density	R-1	wetland/slope	Century Oaks/ no frontage	0 DU	0
4	71.0	5-21	George & Sidney Gray Trust	264 – Class 3	Medium density	R-1	partly contaminated	Worthington	85 SFD	317
5	24.0	5-23, 23.1, 23.2	Kathleen & Craig Gendel	029 - Class 1	Medium density	R-1	floodplain/wetland/pond	Worthington	15 SFD	56
6	6.0	5-50.1	Meaghan & James Resenhoeft	N/A	Medium density	R-1	floodplain/ wetland	Worthington	3 SFD	11
7	15.9	4-62	Rose Saporito	096 - Class 3	Medium density	R-1	floodplain/ wetland	Lynnwood	10 SFD	37
8	7.6	4-16	Loretta Hoffman	092 - Class 3	Low density	RA	floodplain/ wetland	Dowlin Forge	6 SFD	22
9	4.77	4-61	Robert Benedix	090 - Class 3	Low density	RA	-	Dowlin Forge	3 SFD	11
10	6.7	4-48.7	Robert Benedix	N/A	Low density	RA	pipeline	Dowlin Forge	4 SFD	15
11	10.4	4-44.1	AGP Peck Road LP	N/A	Medium density	R-1	floodplain/ wetland	Peck	4 SFD	15
12	20.7	4-45	Kathleen Schonier, Christian McQuail	065 - Class 3	Medium density	R-1	slope/floodplain/wetland	Peck	9 SFD	34
13	5.1	3-41	Craig Connolly	N/A	Low density	RA	-	Pennypacker/ Milford	2 SFD	8
14	5.0	3-41.2	Paul Pennypacker	N/A	Low density	RA	floodplain/wetland/pond	Pennypacker/ Dowlin Forge	4 SFD	15
15	8.2	1-2.1, 2.2, 3, 4, 42.2	Judith Sabbi & Paul Pennypacker	N/A	Low density	RA	floodplain/wetland	Pennypacker/ Dowlin Forge	3 SFD	11
16	8.8	4-2.1	David & Susan Leandri	086 - Class 3	Low density	RA	slope/floodplain/wetland	Milford	4 SFD	15

Notes:

- Population multipliers for residential are: 3.73 for SFD, 2.80 for MH & 2.25 for CONDO
- DU estimate based upon property size, approximate amount of constraints, and zoning. Numbers not based upon engineered plans nor are they guaranteed yield.
- Traffic generated from 187 DU projected at 1,780 daily & 187 peak hour trips based upon 9.52 daily trips/single family DU with 1.0 peak hour trips/single family DU & 5.81 daily trips/condominium DU with 0.52 peak hour trips/condominium DU.
- 242.2ac of residentially zoned land remain undeveloped or 3.6% of the Township (242.2 ÷ 6,656ac = 0.0364)
- Map #s correspond to those shown on Map 4-2 Developable Lands/Build-Out.

Low Density - 9 parcels, 74.1ac (4 @27.1 +3 @19.1 +2 @27.9)

Medium Density - 7 parcels, 157.5ac (2 @31.1 +1 @15.9 +4 @110.5)

TABLE 4-2 PLAN FOR LAND USE, DEVELOPABLE LAND, 2020 – NONRESIDENTIAL BUILD-OUT SCENARIO

MAP #	ACRES	TAX ID	OWNER	HISTORIC RESOURCE	PROPOSED USE	ZONING	CONSTRAINTS	LOCATION	DEVELOPMENT
572.6									4,490,000sf
17	5.0	4-231	Hankin Group	N/A	Commercial/Industrial	PCID	-	Pennsylvania	35,000sf office
18	5.5	4-9A	Hankin Group	N/A	Commercial/Industrial	PCID	slope	Pennsylvania	50,000sf office
19	17.8	4-9B	Hankin Group	N/A	Commercial/Industrial	PCID	Slope	Pennsylvania	70,000sf office
20	27.5	1-38	Hankin Group	N/A	Commercial/Industrial	PIC	-	Route 100	30,000sf office
21	8.8	1-328.1	Hankin Group	N/A	Commercial/Industrial	PIC	-	Haywood	80,000sf office
22	16.4	1-17.1	JJE Associates LP	N/A	Commercial/Industrial	PIC	-	Haywood	100,000sf office
23	216.5	1-25, 26, 27, 28,	DASD	010 - Class 3	Commercial/Industrial	PIC	floodplain/wetland	Lionville Station	1,000,000sf office
24	15.9	5-2	PA Turnpike Commission	N/A	Industrial	PI	wetland/slope	Rt 113	0 sf (slip ramp?)
25	22.8	5-20.14	202 Philips Road Associates	N/A	Industrial	PI	floodplain/wetland/hydric	Philips	0 sf
26	112.6	4-28, 28.1, 29	Nelson Realty Trust c/o Vanguard Group Inc.	005, 006 Class 2	Commercial/Industrial	PIC	floodplain/wetland	Route 100	2,500,000sf office
27	57.4	4-27, 27.1	Nelson Realty Trust c/o Vanguard Group Inc.	N/A	Commercial/Industrial	PIC	-	Sheree	500,000sf retail
28	5.0	4-0	PADOT	N/A	Commercial	PC	-	R100/113e	0 sf
29	4.3	4-26.1	PADOT	N/A	Commercial	PC2	-	R100/113e	0 sf
30	29.6	4-23	Nelson Realty Trust c/o Vanguard Group Inc.	N/A	Commercial/Industrial	PIC	floodplain/wetland	Route 100	Township?
31	2.4	4-23.2	Nelson Realty Trust c/o Vanguard Group Inc.	N/A	Commercial	PC	-	Sheree/Eagleview	1 restaurant
32	5.6	4-64.7 (po)	Lionville I LLC c/o Pintchik Associates Ltd	N/A	Commercial	PC	-	Rt 113	25,000sf office/mix
33	19.5	4-63	Mark & Bonita Rossi	N/A	Commercial	PC	floodplain/wetland	Rt 113	100,000sf office/mix

Notes:

- Square footage estimates based upon property size, approximate amount of constraints, and zoning. Numbers not based upon engineered plans nor are they guaranteed yield.
- Traffic generated from 4,490,000sf office projected at 49,525 daily & 6,690 peak hour trips based on 11.03 daily trips/1,000SF of GFA & 1.49 peak hour trips/1.000SF of GFA.
- Traffic generated from 1, 5,000-7,500SF restaurant projected at 636-954 daily & 49-74 peak hour trips based on 127.15 daily trips/1,000SF of GFA & 9.85 peak hour trips/1,000SF of GFA.
- 572.6ac of non-residentially zoned land remain undeveloped or 8.6% of the Township (572.6 ÷ 6,656ac = 0.0860)
- Map #s corresponds to those shown on Map 4-2 Developable Lands/Build-Out.

Planned Commercial (PC) - 4 parcels, 74.1ac (1@5.0+1@2.4+1@5.6+1@19.5)

Planned Commercial (PC-2) - 1 parcel, 4.3ac (1@4.3)

Planned Industrial-Commercial (PIC) - 5 parcels, 411.7ac (1@8.8+1@16.4+1@216.5+1@112.6+1@29.6)

Planned Industrial-Commercial Development (PICD) - 4 parcels, 45.8ac (1@5.0+1@5.5+1@17.8+1@27.5)

Planned Industrial (PI) - 2 parcels, 38.7ac (1@15.9+1@22.8)

PLAN IMPLEMENTATION STRATEGIES

A key to the “how to” and “what entities are involved” in implementing the recommendations of this Comprehensive Plan Update are listed within the Plan Implementation Strategies. Specific strategies for implementing the plan follow each of the Plan Elements in this Chapter. Plan Implementation Actions are classified as follows:

Immediate: Implementation should begin within six months to one year after Plan adoption as those recommendations identified as “immediate” priorities are issues of high concern.

Short-term: Implementation should occur within one to three years after Plan adoption as recommendations identified as “short-term” priorities are those that may require a degree of preliminary investigation before they can be effectively implemented.

Long-term: Implementation should occur within three to ten years after adoption of the Plan as these recommendations generally do not require the same degree of urgency as others. “Long-term” items may also require a significant amount of evaluation prior to implementation or when funding becomes available.

On-going: Implementation is already occurring on some level and a more concerted effort may be required.

A key to the abbreviations/acronyms shown in the specific participants and responsible parties for implementation for this and subsequent Plan Elements are as follows:

BOS – Uwchlan Board of Supervisors

PC – Uwchlan Planning Commission

B/ZO – Uwchlan Building/Zoning Officer

EAC – Uwchlan Environmental Advisory Council

P&RB – Uwchlan Park & Recreation Board

HC – Uwchlan Historical Commission

UTMA – Uwchlan Township Municipal Authority

LYA – Lionville Youth Association

DASD – Downingtown Area School District

DARA – Downingtown Area Regional Authority

CCPC – Chester County Planning Commission

CCHD – Chester County Health Department

PADEP – PA Department of Environmental Protection

4.1 PLAN FOR LAND USE IMPLEMENTATION STRATEGIES

As defined above, Plan Implementation strategies can be classified as immediate, short-range, long-range, and on-going.

A. IMMEDIATE TO SHORT-RANGE ACTIONS

Recommended immediate to short-range implementation actions proposed, following the Plan Update adoption, include those listed below for residential and commercial/industrial lands. Specific recommendations for community facilities, parks and recreation as well as related traffic/circulation, housing, natural/historic resources, and energy conservation are provided in those separate Plan Elements following this section.

1. RESIDENTIAL

a. Zoning Ordinance

Review and amend, as necessary, the Zoning Ordinance and Zoning Map to include the following:

- (1) Continue to review and possibly modify the area and bulk regulations within the residential districts §§265-501.6-8, 502.6-9, 503.6-8 & 504.6-9 to assure that residential areas have sufficient space, privacy, and convenience.
- (2) Continue to maintain or raise residential values by reviewing the residential districts (§265-504.2-5) and remove certain uses permitted to prevent the introduction of incompatible uses within existing and new residential development. Examples include: medical clinics, business office buildings, and neighborhood commercial uses permitted by conditional use within the R-2 District.
- (3) Emphasize the use of the Residential Open Space Option on the Gray property and any other remaining large undeveloped parcels planned for Medium Density, to set aside open space for active and passive recreation and the preservation of sensitive natural features.
- (4) Evaluate and include conservation by design principles within the applicable section or a new section that focus on the preservation of sensitive natural features, thereby creating a balance between development and the environment.
- (5) Include ‘placemaking’ in the review of plans for future residential development/redevelopment a means to enhance and/or create the Township’s identity and culture.

- (6) Augment and/or create new the pipeline setback requirements within a new §265-621 as well as coordinating and updating the easement and utilities requirements within §§265-604 & 605 of the SALDO.
- (7) Add pipeline right-of-way to the items removed or “netted-out” from the Lot Area definition within §265-301 and create a “Tract Area” definition that would remove the same features from a density calculation.

Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, planning consultant.

b. Subdivision Ordinance

Review and amend, as necessary, the Subdivision and Land Development Ordinance to address the following:

- (1) Evaluate §260-502.3 Street Widths of the Design Standards for residential development relative to on-street parking.

Participants/Responsible Parties: BOS, PC, Manager, B/ZO, Engineer, Solicitor, planning consultant.

2. COMMERCIAL/INDUSTRIAL

a. Zoning Ordinance

Review and amend, as necessary, the existing Zoning Ordinance and Zoning Map to include the following:

- (1) Evaluate the Zoning Map and the uses permitted within §§265-505, 506, 507, 508 & 509 to protect future commercial/industrial areas from encroachment by other land uses during the period of time preceding their development.
- (2) Continue to review the commercial/industrial districts (§§265-506, 507, 508 & 509) to provide for a wide range of uses in order to assure a more balanced future economic base.
- (3) Compare existing off-street parking and loading areas at commercial/industrial uses to the requirements within §265-607 Off-street Parking & Loading of the Supplementary Standards for All Districts to evaluate their adequacy for new developments, and amend as necessary. Evaluate the inclusion design flexibility, such as designated areas for future expansion and shared and/or reserved parking to reduce the amount of impervious surface and potential runoff.
- (4) Continue to evaluate existing conditions within commercial/industrial developments relative to separate vehicular and pedestrian traffic and amend §265-607 Off-street Parking & Loading and §265-605 Shopping Centers as necessary.
- (5) §265-608 Screening requirements in the Supplementary Standards for All Districts or particular district to minimize any adverse effects of commercial/industrial development.
- (6) Evaluate expanding upon the landscape requirements in §§265-607 & 608 and/or create a new section for landscaping.
- (7) Evaluate the woodland protection standards of §265-607 to include additional standard and coordinate with §260-512 of the SALDO.
- (8) Coordinate any amendments of the open space management plan between §265-617 with §260-409 of the SALDO.

Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, planning consultant.

b. Subdivision Ordinance

Review and amend, as necessary, the Subdivision and Land Development Ordinance to address the following:

- (1) Continue to modify §260-510 Erosion & Sediment Controls & Guidelines, Appendix C Construction Improvement Standards and the Stormwater Management Ordinance to include best management practices (BMP) and other creative methods of stormwater management as well as those of the MS4 Program, incorporating all new revisions thereto as well as those of Act 167 within residential/commercial/industrial developments, thereby mitigating the potential negative effects that a particular use will have on adjacent properties and the natural environment.
- (2) Evaluate the tree protection and woodland management standards of §260-512 as noted above.
- (3) Coordinate any amendments of the open space management plan between §260-409 with §265-617 of the ZO as noted above.
- (4) Evaluate the need and/or create special sidewalk provisions for Lionville Historic District in §260-505.3.

Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Engineer, Solicitor, planning consultant.

B. LONG-RANGE ACTIONS

Recommended long-range implementation actions proposed after the short-range actions are completed include the following:

1. NEW ORDINANCES/DOCUMENTS

a. Special Plans/Studies

- (1) Prepare corridor studies for PA Route 100 and PA Route 113 that propose uses within undeveloped properties and evaluate the redevelopment of specific properties that includes ordinances language to promote the recommendations of the study.

Participants/Responsible Parties: BOS, PC, Manager, B/ZO, Engineer, Solicitor, traffic consultant, planning consultant.

- (2) Evaluate transitioning Pickering Industrial Park into an “innovation center” with additional uses and layout.

Participants/Responsible Parties: BOS, PC, Manager, B/ZO, Solicitor, planning consultant.

- (3) Create a “Town Center District” in and around Lionville that involves compatible uses and establishes safe, convenient vehicular and consistent, connected pedestrian circulation patterns.

Participants/Responsible Parties: BOS, PC, Manager, B/ZO, Solicitor, planning consultant.

- (4) Create a large “community park” on currently undeveloped or under-developed property within the Township (more detail in Parks, Recreation & Open Space Plan Element).

Participants/Responsible Parties: BOS, PC, P&RB, Manager, Solicitor, Engineer, landowner/developer, planning consultant

- (5) Consider a requirement for open space within new non-residential development (§§265-506, 507, 508 & 509) or a potential fee in lieu of.

- (6) Consider rezoning the area along Route 100 between Worthington Road to Gordon Drive from residential (R-1) to commercial (PC).

Participants/Responsible Parties: BOS, PC, Manager, Solicitor, Engineer, planning consultant

C. ONGOING ACTIONS

Recommended ongoing implementation actions include the following:

1. ACTIONS

a. Planning Coordination & Plan Review

- (1) Continue to regulate and uphold ordinances, through legal action if necessary, to ensure that new development occurs in a manner that does not adversely impact existing development or place an undue burden on the Township’s infrastructure.
- (2) Continue to plan the locations of commercial areas so that they are convenient to residential areas and provide sites that have easy access for customers, employees, and suppliers.
- (3) Evaluate the Zoning Map relative to locating of commercial development to sites near major traffic thoroughfares while at the same time separating regional commercial traffic from local traffic.
- (4) Continue to create and enforce design standards that will result in commercial developments that are attractively designed, landscaped, and buffered from roadways and residential areas.

Participants/Responsible Parties: BOS, PC, Manager, B/ZO, Engineer, Solicitor, planning consultant.

RELATIONSHIP OF THE PLAN FOR LAND USE TO ADJACENT MUNICIPALITIES' PLANNING EFFORTS

ADJACENT MUNICIPALITIES

According to the Municipalities Planning Code (MPC), and as listed in Chapter 1, the Comprehensive Plan shall include “A statement indicating *the relationship of the existing and proposed development of the municipality to the existing and proposed development and plans in contiguous municipalities.*” Chapter 2 highlighted the existing land use and zoning for the six Townships that surround Uwchlan Township: Upper Uwchlan, West Pikeland, Charlestown, West Whiteland, East Caln, and East Brandywine. All six municipalities have adopted Zoning Ordinances and Comprehensive Plans as indicated in Chapter 2. The compatibility of the Plan for Land Use with the abutting proposed land uses and existing zoning districts of the adjacent Townships is highlighted below.

Upper Uwchlan Township

The proposed land use designations of Low Density Residential, Commercial/Industrial, and Community Facilities in Uwchlan are generally consistent with the Upper Uwchlan Future Land Use Plan (adopted April 2014) for Rural & Suburban/Site Responsive Development, Village, and Suburban Employment Development. The proposed land uses of Uwchlan are equally consistent with the Upper Uwchlan Township Zoning Ordinance (amended September 2016) of R1-Residential, R2-Residential District with F1 Flexible Development Overlay, R3-Residential with F2 Flexible Development Overlay, C2-Limited Commercial, C3-Highway Commercial, PI-Planned Industrial/Office, and LI-Limited Industrial Districts.

West Pikeland Township

The proposed land use designations of Low, Medium & High Density Residential and Parks & Open Space in Uwchlan are generally consistent with the West Pikeland Future Land Use Plan (adopted December 2010) for Residential Growth Area and areas of Open Space/Parks/Greenways; and West Pikeland Township Zoning Ordinance (amended April 2005) of RD, Residential Development District. The High Density Residential in Uwchlan proposes higher densities than those planned or zoned in West Pikeland, however the majority of the boundary area of Uwchlan contains existing development with limited to no area for new development and abuts the highest density area proposed within West Pikeland.

Charlestown Township

The proposed land use designation of Medium Density Residential in Uwchlan is consistent with the Charlestown Plan for Land Use (adopted December 2001) for Other Low & Moderate Intensity Development and the Charlestown Township Zoning Ordinance (amended June 2017) of FR, Farm Residential and PRD-2, Planned Residential Development Districts.

West Whiteland Township

The proposed land use designations of Medium Density Residential, Parks & Open Space, and Commercial in Uwchlan are consistent with West Whiteland's Land Use Plan (Plan amended March 2015) of Low Density Residential and Parks, Permanent Open Space & Resource Conservation and Zoning Ordinance (amended September 2015) of R-1, Residential, R-2 Residential, and NC, Neighborhood Commercial Districts.

East Caln Township

The proposed land use designations of Medium Density Residential, Parks & Open Space, and Commercial of Uwchlan are generally consistent with the East Caln Future Land Use Plan (adopted March 2012) of County Community Facilities, Low & Medium Density Residential, and Mixed Residential & Commercial, and Zoning Ordinance (amended July 2017) of R-1 & R-2 Single Family Detached Residential, R-4 Low Density Cluster Residential, and OC-1, Office Commercial Districts.

East Brandywine Township

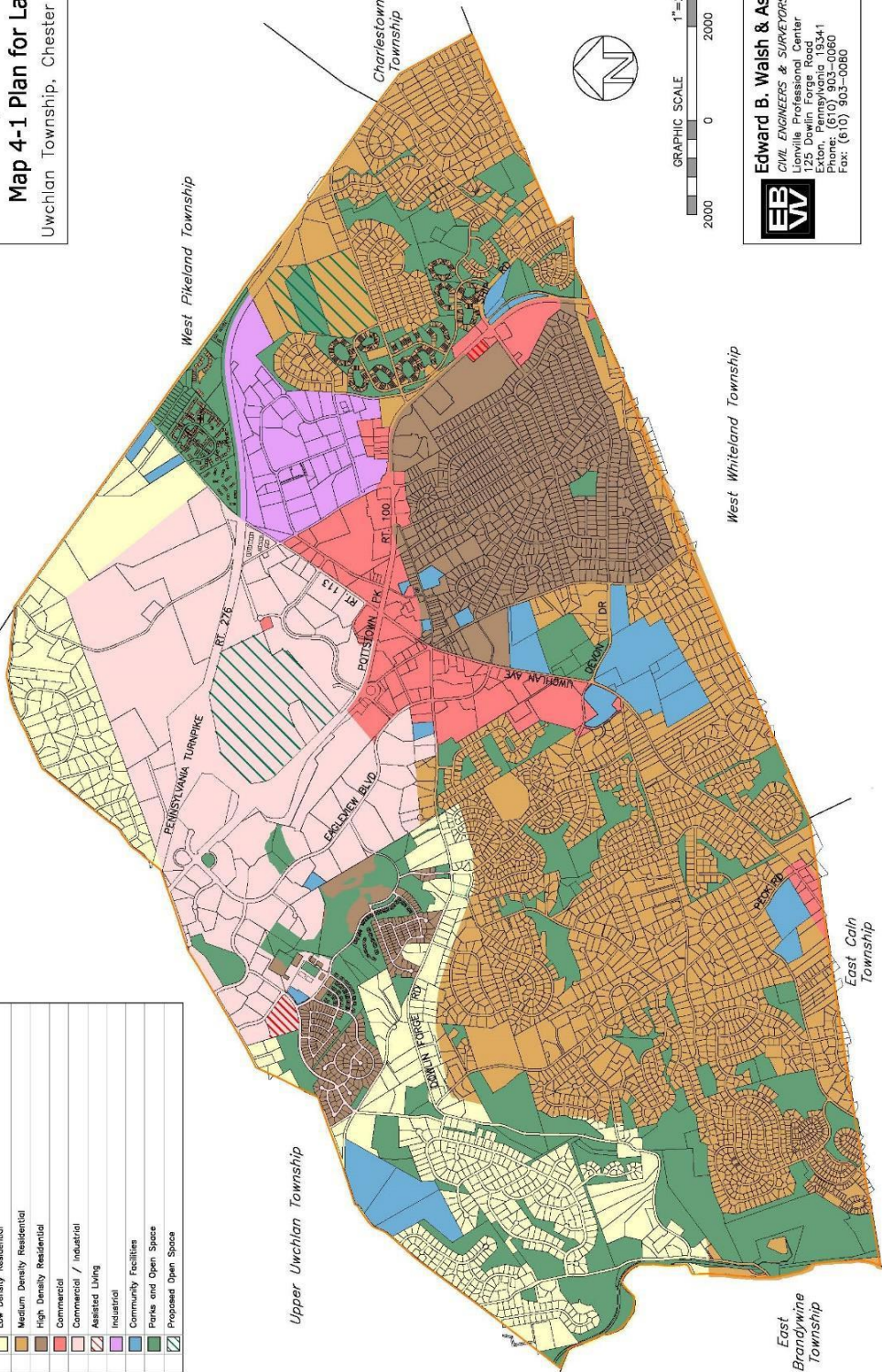
The proposed land use designations of Low Density Residential and Parks & Open Space of Uwchlan are consistent with the East Brandywine Future Land Use Plan (amended February 2014 for Guthriesville Design Manual) of Residential, Residential or Protected Open Space and Protected Public & Institutional and the East Brandywine Township Zoning Ordinance (amended July 2017) for R-1, Residential District.

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2020 Comprehensive Plan Update
Map 4-1 Plan for Land Use
 Uwchlan Township, Chester County, PA

Legend

Plan for Land Use	
[Light Green Box]	Low Density Residential
[Light Orange Box]	Medium Density Residential
[Light Yellow Box]	High Density Residential
[Light Blue Box]	Commercial
[Light Purple Box]	Commercial / Industrial
[Light Red Box]	Assisted Living
[Light Brown Box]	Industrial
[Light Cyan Box]	Community Facilities
[Light Green Box]	Parks and Open Space
[Light Blue Box]	Proposed Open Space



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File: F:\JB\1265-417\1265-417-B-2020.DWG Plotted: May 27, 2020

Map 4-1
Plan for Land Use Map (back)

2020 Comprehensive Plan Update
**Map 4-2 Developable Land in
 2019 - Build-Out Scenario**
 Uwchlan Township, Chester County, PA

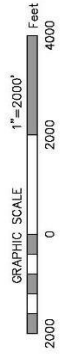
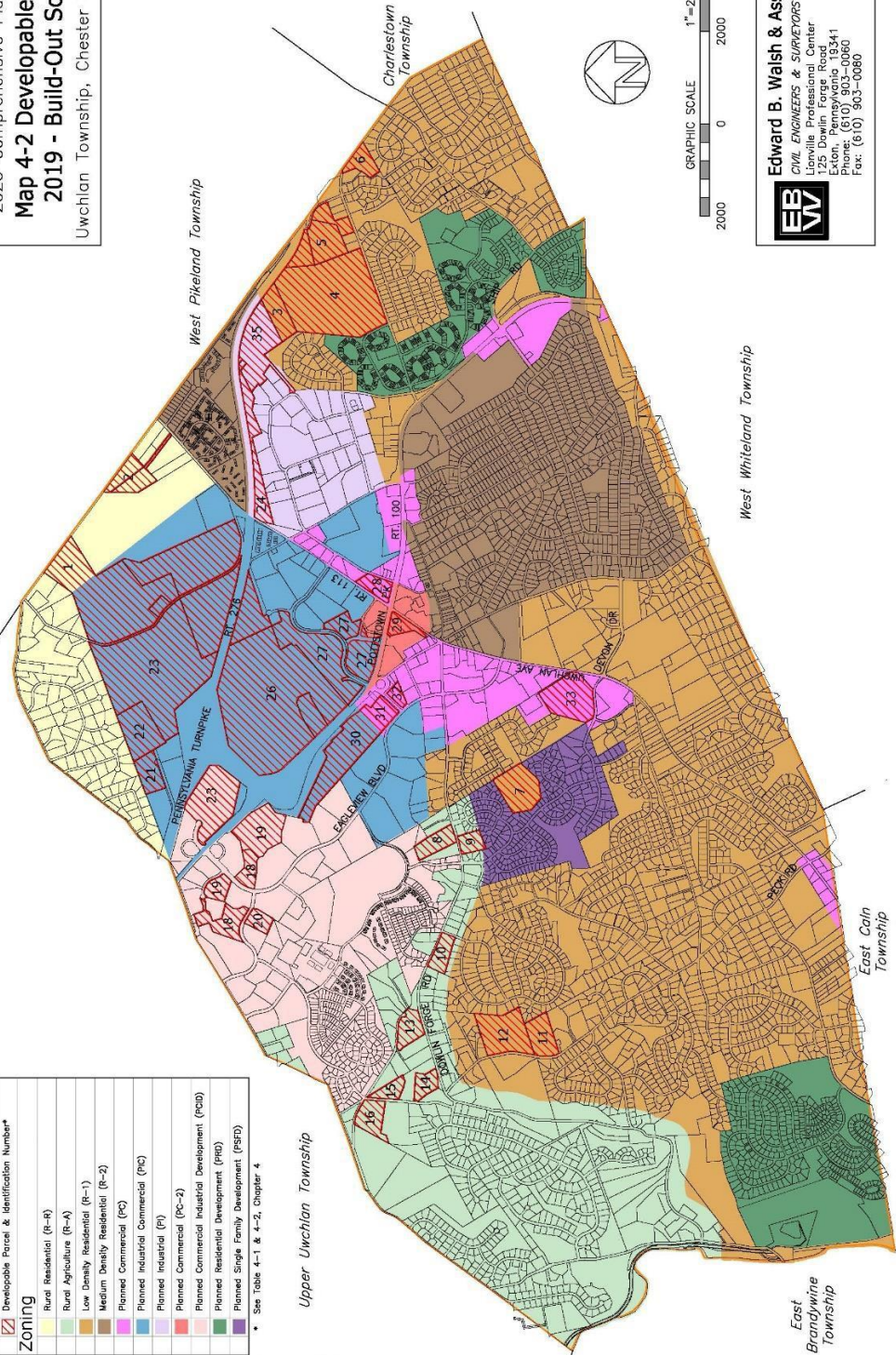
Legend

Developable Lands

Developable Parcel & Identification Number*

Zoning	Description
[Light Green]	Rural Residential (R-4B)
[Light Green]	Rural Agriculture (R-4A)
[Light Green]	Low Density Residential (R-1)
[Light Green]	Medium Density Residential (R-2)
[Light Green]	Planned Commercial (PC)
[Light Green]	Planned Industrial Commercial (PIC)
[Light Green]	Planned Industrial (PI)
[Light Green]	Planned Commercial (PC-2)
[Light Green]	Planned Commercial Industrial Development (PCID)
[Light Green]	Planned Residential Development (PRD)
[Light Green]	Planned Single Family Development (PSFD)

* See Table 4-1 & 4-2, Chapter 4



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 Plotted: May 27, 2020

Map 4-2
Developable Lands/Build-Out (back)

PLAN FOR COMMUNITY FACILITIES & SERVICES

The Plan for Community & Services establishes the policies for community facilities, services, and utilities to function and operate in Uwchlan Township. A major factor that influences planning for services is the various jurisdictions that have responsibilities for addressing needs outside of the control of the Township. Several of the community facilities that serve the region are located within the Township, such as six of the sixteen schools of the Downingtown Area School District (DASD), the Lionville Fire Company, and Uwchlan Ambulance Corps. The Township in turn is part of a regional network of facilities whose decision making is located elsewhere such as the DASD and utilities supplied by Downingtown Area Regional Authority (DARA), Aqua PA, and PECO.

According to the Municipalities Planning Code (MPC) and as listed in Chapter 1, the Comprehensive Plan shall include “A plan for community facilities and utilities, which may include public and private education, recreation, municipal buildings, fire and police stations, libraries, hospitals, water supply and distribution, sewerage and waste treatment, solid waste management, storm drainage, flood plain management, utility corridors and associated facilities, and other similar facilities or uses.” The Community Facilities & Services section of the Inventory & Analysis coupled with the population forecasts as well as the goals and objectives stated within Chapter 3, provide the background necessary to recommend future levels of community facilities within Uwchlan. This Plan element offers recommendations pertaining to sewage facilities, water supply, school facilities, emergency service needs, and Township services. A major theme of the recommendations involves some type of cooperation with the entity providing the service. In terms of Township services, the objective is to balance the level of service necessary to meet anticipated needs with the Township’s fiscal capabilities and sound management of its resources.

EDUCATIONAL FACILITIES

The educational needs of Uwchlan Township appear to be adequately addressed through the ongoing construction and renovations undertaken by the Downingtown Area School District (DASD). DASD reports that with the ongoing construction program, it should have sufficient capacity to serve Uwchlan Township students well into the future. After several years of steady enrollment growth, the increases have leveled off and are expected to be smaller in future years due to less land available for development opportunities and the economic climate. DASD reported the 2019-20 enrollment to be 13,716 students and a Summer 2018 report projected an enrollment of 14,185 students by 2026-27. As discussed in Chapter 2, DASD opened two new schools since the 2010 Plan: The Science, Technology, Engineering & Math (STEM) High School in Downingtown for the 2011-12 school year; and the Marsh Creek Sixth Grade Center on Dorlan Mill Road for the 2014-15 school year. The Township should remain abreast of DASD decision making regarding budgets and facilities, specifically those within Uwchlan, and actions relative to their property on Lionville Station Road.

EMERGENCY SERVICES

Police Services

Current staffing of the Township Police Departments appears adequate. The population forecasts of an additional 704 persons by 2040 prepared by CCPC/DVRPC project a total build-out of the Township. The Police Department’s continued allocation of manpower resources by obligated (or dedicated) versus non-obligated (or dedicated) time to handle patrol and responses, rather than the outdated population-based standards will more adequately address needs. In addition, the fiscal reality of the Township budget will also dictate the potential for additional police needs.

Fire Services

Based on current standards, the fire protection provided by the Lionville Fire Company appears adequate for existing as well as those future needs projected by this Plan Update. In addition to Lionville’s equipment replacement program, all fire fighters should continue to be required to receive National Fire Protection Agency (NFPA) training. The Township should continue its financial support of the Lionville Fire Company. Continued Township Fire Marshal inspections and strict enforcement of the Fire Protection Code should also occur for both existing and new construction.

Ambulance Services

As in case of the fire protection, the facilities and service of Uwchlan Ambulance Corps and supporting agencies appear adequate to meet the Township’s existing and future needs. In order to ensure that effective Emergency Medical Service

is available to all residents, Emergency Medical Technicians (EMT) should be continue to trained and certified, as needed, and a medical doctor(s) should be available to oversee medical services. The Township should continue its financial support of the Uwchlan Ambulance Corps or any other companies that might serve the Township.

MUNICIPAL FACILITIES

Staff and space at the Township facilities are adequate at the current time and are expected to be so for the near future. As additional municipal services are made available to Township residents, additional space may be required for administration, meetings, and equipment. The Township's coordination of its Emergency Operations Center (EOC) with the County Emergency Management System (EMS) functions adequately relative to emergency preparedness; continued liaison is recommended.

UTILITIES AND SERVICES

Water Service

Aqua PA will continue to provide water service to Uwchlan. The Township should continue to work closely with Aqua PA to ensure that adequate water service is available to existing and future Township residents and businesses.

Sewer Service

The continued use of the Downingtown Regional Water Pollution Center and Uwchlan Township Municipal Authority (UTMA) System is proposed to handle the sewer need of Uwchlan Township. The Township must continue to work closely with DARA and the UTMA to ensure that adequate sewer service is available to existing and future Township residents and businesses.

Those portions of the Township that remain unsewered must be periodically reviewed both for the potential of public sewer extension within new development and the adequacy of those existing on-lot sewage disposal systems.

Solid Waste Disposal

The current system, whereby the Township contracts with a private contractor to provide trash and recyclables collection throughout the Township, is sufficient at the present time. The Township should continue to monitor this arrangement and revise it as necessary to adjust to future situations.

Stormwater Drainage

The Township should continue to periodically review, and update as necessary, the appropriate section of its zoning and subdivision ordinances, building code, erosion and sedimentation and other ordinances to regulate development in a manner consistent with the County, State and Federally-mandated regulations relative to stormwater management.

One example of this review and update process is the Township's participation in Environmental Protection Agency's (EPA's) MS4 Stormwater Management Program, which involves an ongoing permit, updated every 5 years; a task the Township recently undertook. The Township, through the MS4, is required to design its program to reduce the discharge of pollutants to the maximum extent possible, protect water quality, and satisfy the appropriate water quality requirements of the Clean Water Act through six elements: public education and outreach; public participation/involvement; illicit discharge detection and elimination; construction site runoff control; post-construction runoff control; and pollution prevention/good housekeeping. Additionally, Act 167 is proposed for an update, therefore the Township should keep abreast of update status and amend its Stormwater Management Ordinance accordingly.

Other Utilities

At a minimum, every five years the Township's electrical supply should be reviewed to confirm that it is sufficient to meet future requirements. Telephone and cable TV services should be reviewed to confirm that they are comparable to services elsewhere in the Region.

4.2 PLAN FOR COMMUNITY & SERVICES IMPLEMENTATION STRATEGIES

As defined earlier in this Chapter, Plan Implementation strategies can be classified as immediate, short-range, long-range, and on-going.

A. IMMEDIATE TO SHORT-RANGE ACTIONS

Recommended immediate to short-range implementation actions proposed, following the Plan Update adoption, include those listed below.

1. ACTIONS

a. Subdivision and Stormwater Ordinances

(1) Review the Act 167 amendments as incorporate within Chapters 214 Stormwater and 260 Subdivision as necessary.

Participants/Responsible Parties: BOS, PC, Manager, B/ZO, Solicitor, Engineer.

B. LONG-RANGE ACTIONS

Recommended long-range implementation actions proposed after the short-range actions are completed include the following:

1. ACTIONS

a. Planning Coordination & Plan Review

(1) Review the potential extension of public sewer and water to that area of the Township north of the PA Turnpike currently unserved.

Participants/Responsible Parties: BOS, PC, Manager, Solicitor, Engineer, DARA, UTMA, CCPC, CCHD, PADEP, AquaPA.

(2) When available, consider the use of alternative wastewater treatment and disposal technologies, such as the retrofitting of existing wastewater treatment facilities in order to improve energy efficiency.

Participants/Responsible Parties: BOS, PC, Manager, Solicitor, Engineer, DARA, UTMA, CCPC, CCHD, PADEP.

C. ONGOING ACTIONS

Recommended ongoing implementation actions include the following:

1. ACTIONS

a. Planning Coordination

(1) Continue to provide the variety of Township administrative services and facilities, such as building and fire code inspections, newsletter, website, staffing, and meeting facilities.

Participants/Responsible Parties: BOS, Manager, B/ZO, Staff.

(2) Continue to provide adequate Police Department staffing and coverage to serve the residents and business of the Township.

Participants/Responsible Parties: BOS, Manager, Police Chief.

(3) Continue to financially support the Lionville Fire Company and Uwchlan Ambulance Corps, or other companies providing services, to ensure adequate emergency services for the Township.

Participants/Responsible Parties: BOS, Manager, Lionville Fire Co, Uwchlan Ambulance Co.

(4) Continue to work with DASD regarding their facilities within the Township and monitor their activity with the property on Lionville Station Road.

Participants/Responsible Parties: BOS, Manager, Solicitor, DASD.

(5) Review and update, as necessary, the Township Act 537 Sewage Facilities Plan.

Participants/Responsible Parties: BOS, PC, Manager, Solicitor, Engineer, DARA, UTMA, CCPC, CCHD, PADEP.

(6) Continue to work closely with DARA and UTMA to ensure that adequate sewer service is available to existing and future Township residents and businesses.

Participants/Responsible Parties: BOS, Manager, Engineer, DARA, UTMA, CCPC, CCHD, PADEP.

(7) The Township must continue to work closely with Aqua PA to ensure that adequate water service is available to existing and future Township residents and businesses.

Participants/Responsible Parties: BOS, Manager, Engineer, AquaPA.

PLAN FOR PARKS, RECREATION & OPEN SPACE

The Plan for Parks, Recreation & Open Space is typically part of the Plan for Community Facilities & Utilities as set forth in the Municipalities Planning Code (MPC) “A plan for community facilities and utilities, which may include public and private education, recreation ...”, however given the amount of land within the Township allocated to parks, recreation, and open space as well as facilities and programs offered, a separate section is warranted as it was in the both the 2000 Plan and 2010 Plan Update. This Plan Update builds upon the Inventory & Analysis of Chapter 2 by evaluating land and facility needs based upon standards and concludes with immediate, short-range, long-range, and ongoing implementing strategies.

STANDARDS

The experience of park, recreation and planning experts within the region and from around the country has created a pool of common observations and judgments. This experience has been translated into standards for parks and recreation facilities. Park area standards for this Plan Update are based on those established by the National Recreation and Parks Association (NRPA) and are shown on Table 4-3. These standards are presented in terms of land area or number of facilities required to serve a given population.

The NRPA standards presented in this Plan provide a method for generally measuring need. Recreational facility standards for this Plan are based upon guidelines established by three sources: the NRPA, the Chester County Open Space and Recreation Study (CCOSRS), and the Delaware Valley Regional Planning Commission (DVRPC). These standards are shown on Table 4-4. They can be used to evaluate how well existing lands and facilities meet those needs and thereby determine the extent of unmet needs. Population-based standards can also be compared to expected population increases based upon new development. This comparison will afford a general picture of what kind of park and recreation needs any particular development may generate. Standards cannot provide a complete or detailed basis for designing parks or for determining the exact number or location of specific facilities. Detailed design decisions cannot be made according to strict formulas, but must be based on specific needs, desires, and financing and operating capabilities of the Township.

Regional Parks

Regional parks are large scale park preserves serving an area greater even than Chester County. Because of their regional significance, such parks are usually provided by federal or state governments. They typically provide a variety of outdoor recreation opportunities, both active and passive, particularly those requiring large land or water areas. Emphasis is often placed on recreation opportunities beyond the scope of those typically provided at local parks, including, for example, camping, boating and swimming. Based on widely accepted standards developed by the NRPA, most regional parks in southeastern Pennsylvania do not adequately meet the regional park needs of their service areas. Only French Creek State Park, 7,500 acres straddling Chester and Berks Counties, offers a full array of regional park and recreation opportunities. In any case, it is in the interest of Uwchlan Township to support, and even promote, the expansion of regional parks and associated recreational opportunities.

Uwchlan Township is served by a closer regional park, Marsh Creek State Park in neighboring Upper Uwchlan, albeit a specialized water activity related facility. Marsh Creek State Park comprises 1,705 acres with a 535 acre lake and for the following activities and facilities: boating (two launch and 220 seasonal mooring slips); fishing, hunting (on 900 acres designated for such); miles of pedestrian and equestrian trails; picnicking; and a swimming pool with concessions and restrooms.

Sub-Regional Parks

These parks fill the gap between regional parks and local parks. Ideally, they provide relatively large tracts of public open space within a short drive of home; fifteen minutes is considered a reasonable threshold. Serving less than an entire county, sub-regional parks are beyond the scope of municipal provision. They are likely to be provided by county government, but could be provided jointly by more than one municipality. Sub-regional parks should be geared to regular use on weekdays as well as weekends. They should offer the trails, fields, courts, water recreation areas, picnic areas, and woodlands that local parks can only partially provide.

Uwchlan Township will be served by the 700-acre Exton Park, the joint West Whiteland Township/Chester County owned facility located on the Church Farm School property currently in the design stage that will function as a sub- regional park. One design option depicts the following: natural areas consisting of hundreds acres of woodland, wetland, meadow, and ponds; active recreation area consisting of open fields (soccer, multi-purpose), baseball and softball fields; volleyball; hard court facilities (tennis and basketball); multiple playground areas; miles of trails (multi- purpose, pedestrian, primitive, equestrian); numerous picnic areas and pavilions; amphitheater; restrooms and concessions.

Community Parks

Community Parks provide a local place for group and individual sports and exercise, both casual and organized. They serve local outdoor recreation needs on a regular basis. Both active and passive uses are ordinarily provided within a community park. Such activities may make use of adjacent or associated school or municipal facilities. It is generally appropriate to provide undesignated "natural" or landscaped areas at least equal in land area to the area occupied by courts, fields, buildings and other active recreation facilities. In more developed areas, visual and noise screening or buffers from adjacent residential and other land uses may be necessary.

Many of those who use the community park will drive to such a facility. The parks should be as centrally located as possible. Pedestrian walkways and trails should provide safe access from all directions. Where possible, it is desirable to link community parks into the stream valley and background open space network via such trails, effectively expanding the passive or natural areas of the parks. Sites chosen for community park development should have sufficient well- drained soil and relatively level land to accommodate playing fields, courts and other heavily used recreation facilities, if such are planned. Refer to Table 4-3 for standards regarding community parks.

Community parks will vary according to the needs, desires, and means of the Township. Approximately one-half of the average community park is devoted to landscaped and undesignated areas. This space is necessary to prevent different activities from interfering with one another, to provide landscaped transitions between the park and its surroundings, and to provide quiet, shady places for the more passive but equally important kinds of recreation. The actual number of fields, courts and other recreation facilities included at any one park should reflect a careful analysis of Township needs and site characteristics.

Neighborhood Parks

Neighborhood parks should provide spaces and facilities for recreation close to home. Exercise and sitting areas for adults, play areas for children, and undesignated field and court areas should be part of a neighborhood park. Large- scale active recreation facilities may be included if the size of the parks permits. Such facilities are more appropriate in community parks.

Although five acres is the minimum recommended size, neighborhood parks should comprise 10 acres wherever possible. Sufficient land is desirable to provide landscaped or natural buffer areas between different park activity areas and between the park and other adjoining land uses. Sufficient level or nearly level land is needed for court and field areas.

Many of those who use the neighborhood park will travel on foot or on bicycle. Neighborhood parks should be located so that wherever possible park users will not have to cross heavily traveled roadways or rail lines to reach them. Neighborhood parks should provide for recreation close to home, both active and passive. Play apparatus for children should be supplemented by areas designed for older children and/or adults that have full view of the small children, yet avoid physical interference with them. Refer to Table 4-3 for standards regarding neighborhood parks.

Detailed selection of facilities for neighborhood parks should reflect the demographics of the service area of each park.

In neighborhoods where young and middle-aged adults without children predominate, for example, there might be a greater concentration of court sport areas and a jogging or exercise trail. Where senior citizens are prevalent, benches in conversational groupings and shuffleboard courts are examples of facilities that become more important. In all cases, park facilities should be designed with multi-use in mind, to facilitate response to varying demographic needs. Appropriate numbers of individual facilities should be determined based on an analysis of neighborhood and community- wide recreation needs relative to the degree those needs are met at other parks and recreation areas.

Mini/Pocket Parks

Mini/Pocket parks are small walk-to parks which supplement limited “backyard” recreation opportunities in densely developed residential areas. They primarily serve the daytime recreation needs of senior citizens and pre-school children with supervising adults. Mini/Pocket parks are required only in areas where residential densities severely limit “backyard” recreation opportunities, essentially limited to multi-family developments, whether apartments, townhouses or the like. Acreage required for mini/pocket parks is intended for that specific recreational use. It may be a part of the overall open space system in a development. It is not a substitute for greater areas of general open space that may be required. Refer to Table 4-3 for standards.

Mini/Pocket parks should be located centrally to their service areas. They should be in quiet locations, away from heavy traffic or conflicting land uses. They should be easily accessible, especially by foot, and highly visible. Facilities at mini/pocket parks should reflect the demographic make-up of each service area. These parks service the smallest and potentially most unique populations. In general, primary users are pre-school children with parents or other supervising adults and senior citizens. Primary facilities are play areas for children and passive sitting areas for adults, with walks, benches and tables. Examples of mini/pocket parks within the Township include the “greens” within Eagleview between Wharton Boulevard East and West and at the corner of Braceland and Mahoney Drives.

**TABLE 4-3
PARK FACILITY STANDARDS & NEEDS**

Type of Park	Standard ¹	Size Range ¹	Service Area ²	2019		2020		2030		2040	
				Existing Parks ²	Need ³	Deficit(-) Surplus(+) ⁴	Need ³	Deficit(-) Surplus(+) ⁴	Need ³	Deficit(-) Surplus(+) ⁴	
Mini/Pocket	.25-.5 ac	≤1 ac	<¼ mi radius	0	4.8 to 9.6 ac	-4.8 to -9.6 ac	4.9 to 9.8 ac	-4.9 to -9.8 ac	4.9 to 9.8 ac	-4.9 to -9.8 ac	
Neighborhood	1-2 ac	5 to 10 ac	¼-½ mile radius	84.0 ac	19.1 to 38.2 ac	+64.9 to +45.8 ac	19.6 to 39.2 ac	+64.4 to +44.8 ac	19.8 to 39.6 ac	+64.2 to +44.4 ac	
Community	5-8 ac	20 to 50 ac	1-2 mile radius	97.2 ac (101.3 ac)	95.4 to 152.6 ac	+103.1 to +45.9 ac	97.9 to 156.7 ac	+100.6 to +41.8 ac	98.9 to 158.3 ac	+99.6 to +40.2 ac	
Subregional	5-10 ac	100 to 400 ac	Multi-municipal	(701.2 ac)	95.4 to 191.8 ac	-95.4 to -191.8 ac	97.9 to 195.9 ac	+603.3 to +505.3 ac	98.9 to 197.8 ac	+602.3 to +503.4 ac	

Notes:

1. Recreation, Park & Open Space Standards & Guidelines; NRPA; Park, Recreation, Open Space & Greenway Guidelines, NRPA; and the American Academy for Park & Recreation Administration. Standards are acres per 1,000 persons.
2. The existing park acreage figures represent developed facilities and those in parenthesis represent a total including parkland that is currently undeveloped (Exton Park). School District properties (Downingtown East HS, Lionville MS, and Lionville ES) have been included as the lower total where they relate to a particular park type due to the Shared Facilities Agreement for these schools. Shamona Creek and Uwchlan Hills ES are not part of the Agreement and have not been included, but would be considered neighborhood parks.
 Pocket Parks: none small enough to fit standards;
 Neighborhood Parks: Acker (5.9), Baird (10.0), Eagleview (14.05), Martin (14.8), Spring Run (17.2), Target (4.7), Williamsburg (17.3) = 83.95 ac
 Community Parks: Dowlin Forge (36.2), Lionville (24.03), Shamona (Main & Peck) (37.0) = 97.23 ac
 Subregional Parks: Exton Park (701.2) is added (in parenthesis) to the 2030 and 2040 as improvements will not be constructed until then.
3. Acreage requirements for need are based upon applying the NRPA standards to the population forecasts for 2020, 2030 & 2040. The population data used (from CCPC & DVRPC forecasts) to determine the park facility requirements is as follows:
 2020 – 19,079 2030 – 19,588 2040 – 19,783
4. The year 2020, 2030 & 2040 deficit/surplus figures also assume park development for those lands in ().

EVALUATION OF PARKS, RECREATION FACILITIES & PROGRAM NEEDS

Parks

Uwchlan currently has seven neighborhood parks: Acker (5.9), Baird (10.0), Eagleview (14.05), Martin Memorial (14.8), Spring Run (17.2), Target (4.7), Williamsburg (17.3) totaling 83.95 acres. The Township has three community parks: Dowlin Forge (36.2), Lionville (24.03), Shamona (Main & Peck) (37.0) totaling 97.23 acres. The nature preserve that includes Inslee, Jones, Shamona Ridge and Young acquisitions contains about 179.8 acres as well. The Shared Facilities Agreement allows for some of the school facilities to be credited. The Lionville Middle School, East High School and adjacent Lionville Park function as a sports complex, which is a specialized form of park involving high intensity athletic use. Upon review of these figures, the Township has managed to keep pace with existing development, however, if Uwchlan is to maintain this current level of service and accommodate any unanticipated population increase, the Township would need additional community park ground. This need becomes more apparent as new development decreases available land for parks therefore acquiring parkland or open space is more critical with the passage of time.

Table 4-3 reports a current deficit of 4.8-9.6 acres for mini/pocket-parks and a surplus of 19.1-38.2 acres for neighborhood parks and 45.9-103.1 acres for community parks. Applying the NRPA standards of Table 4-3 to the existing and forecasted Township population indicates that the current and proposed parks along with the three schools in Lionville adequately serve the Township from 2020 to 2040 in terms of neighborhood and community parks. There continues to be a deficit in mini/pocket parks of just under 10 acres in 2019 to 2040. The population-based standards indicate Uwchlan to be served by the existing neighborhood and community parks to the year 2040.

Notwithstanding the aforementioned coverage provided by the existing neighborhood and community parks, the continued development of future parks will be necessary to provide both linkages and coverage of currently unserved portions of the Township. As previously noted, portions of the Township east of Route 100, particularly the residential areas north of the Turnpike and hose areas south of Pickering Creek Industrial Park are not served by a community or neighborhood park. Several options are available for the Township to address the park needs as highlighted below:

Option 1

- *The mini/pocket-park need can be met through the surplus neighborhood park acreage;*
- *The neighborhood parkland is currently met and can also meet the pocket park demand; and*
- *The community parkland is currently met. Consideration should be given to acquisition of tracts adjacent to existing parks to augment these facilities.*

Option 2

- *The mini/pocket park need can be met through the land development process;*
- *The neighborhood parkland need is currently met, however one 10-15 acre facility north of the Turnpike could be obtained through the land development process to serve an area need; and*
- *The community park need is currently met; however, one 25-acre facility north of the Turnpike could be obtained through the land development process to serve an area need and development of a "senior park" at the Lionville Park campus.*

Option 3

- *The mini/pocket park need can be met through the acquisition and development of five to six 1-2 acre facilities;*
- *The neighborhood parkland need is currently met, however the acquisition and development of one 10-15 acre facility north of the Turnpike would serve an area need deficit; and*
- *The community park need is currently met, however the acquisition and development of one 25-acre facility north of the Turnpike would serve an area need deficit.*

Option 4

- *Mini/pocket park need can be met through the land development process;*
- *Neighborhood parkland need is currently met, however the acquisition and development of one 10-15 acre facility with the assistance of a land preservation specialist north of the Turnpike would serve an area need deficit; and*

- *Community park need is currently met, however the acquisition and development of one 25+ acre tract that balances active and passive use, assisted by a land preservation specialist north of the Turnpike would serve an area need deficit.*

A combination of Options 2 and 4 appears to be the best choice, based upon the current Township practice of obtaining parkland through the land development process, but with professional assistance. Much of this option is also compatible with the Township policies of developing “larger, more usable” park facilities, the provision for a balance of active and passive recreation opportunities, and the preservation of sensitive natural areas. In addition, Option 2 recommends a specialized “senior park” at the Lionville Park campus. A portion of Option 4 involves the recognition that the mini/pocket park needs can be served by the existing neighborhood parks, negating need for the acquisition and development of such facilities. Map 4-3 depicts the general locations of parcels for parks and recreation necessary to address the area and locational deficits.

**TABLE 4-4
RECREATIONAL FACILITY STANDARDS & NEEDS**

Type of Facility	Standard ¹	Existing 2019		2020		2030		2040	
		Township	School District	Needs ³	Deficit(-) Surplus(+) ⁴	Needs ³	Deficit(-) Surplus(+) ⁴	Needs ³	Deficit(-) Surplus(+) ⁴
Field Space									
Baseball/Softball	.5	13	6	10	+9	10	+9	10	+9
Soccer/Lacrosse/Field Hockey/Football	.7	9	15	14	+10	14	+10	14	+10
Court Space									
Volleyball	.3	4	4	6	+2	6	+2	6	+2
Basketball	.4	6	4	8	+2	8	+2	8	+2
Tennis	.5	3	7	10	-	10	-	10	-
Other Activities									
Track/Cross Country Course	.2	0	1	4	-3	4	-3	5	-4
Swimming Pool	.2	0	0	4	-4	4	-4	4	-4
Play Apparatus	.5 ²	10	1	10	+1	10	+1	10	+1
Picnic Area	.2 ²	12	0	4	+8	4	+8	4	+8
Trails	.5mi ²	12 mi	0	10 mi	+2 mi	10	+2 mi	10	+2 mi

Notes:

1. Standards derived from NRPA & DVRPC. These standards are expressed in fields, courts or activities per 1,000 persons.
2. Standards for play apparatus, picnic areas and trails derived from DVRPC Open Space Standards & Criteria for the Delaware Valley.
3. The facility needs are based on applying the NRPA/DVRPC standards to the population forecasts for 2020, 2030 & 2040.
4. The year 2020, 2030 & 2040 deficit/surplus figures also assume development of those facilities in () on new parks.

Recreation Facilities

Only two existing types of Township and School District facilities exhibit an existing 2019 or projected 2030-2040 deficit as shown in Table 4-4. It is important to understand that the facility types listed reflect a Township-wide need and not the facility need for a particular park. Also, of note, the deficits are based upon projected population increases highlighted in Chapter 2 and the Plan for Land Use section of this Chapter. The recreational facilities deficits are as follows: 2020 – 3 tracks and 4 swimming pools; 2030 – 3 tracks and 4 swimming pools; and 2040 – 4 tracks and 4 swimming pools. The swimming pool deficit is offset somewhat by the 12 swimming pools within developments of Aspenwood, Eagleview (3), Liongate, Marchwood, Rhondda, Severgn, Village Walk, and Williamsburg as well as the YMCA and Pennypacker Club, although these pools are not available to the public. While not available to all Uwchlan residents, the 12 “private swimming pools” serve approximately 40% of the Township population. The increased development of trails available to the public noted in Chapter 2 has kept pace with the projected populations to erase any deficit noted in the 2010 Plan Update. The 12 miles of public trails coupled with the 60 miles of sidewalks within developments and along some collector-local streets creates a very “walkable community” that few Chester County townships can equal. Connecting the trails across Routes 100 and 113 remain the major pedestrian-related issue, therefore the implementation strategies will discuss linking the “walkway network.”

The population-based standards reflect only one part of the equation. For recreational planning purposes, the population can be divided into four basic groups, preschool, school age, the work force, and retired. These correspond generally to the respective age groups: 0-4, 5-19, 20-64, and over 65. The typical array of recreational facilities discussed here reflects a normal population distribution within each age group. The preschool age population in Uwchlan was 1,132 persons or 6.3% of the total population in 2010, almost the same as the County 6.2%. School age population in Uwchlan was 4,257 persons (23.5% vs. 21.5% countywide), the "work force" age group (20-64) numbered 11,104 persons (61.4% vs. 59.5% countywide), and the over-65 total was 1,595 persons (8.8% vs. 12.9% countywide). The 2010 median age of 39.5 in Uwchlan was similar to County number of 39.3. As noted in Chapter 2, the median age of Township residents rose from 35.5 to 39.5. Continue to support, and where appropriate add youth-oriented activities, but shift the emphasis to both active and passive facilities for adults.

Programs

As discussed in Chapter 2, Township residents are adequately served by DARC, LYA, and the YMCA. All of these organizations provide a range of programs and activities. LYA addresses the active recreation needs of boys and girls ages 6 to 18, while the YMCA and DARC provide instruction, educational, and other programs serving residents that range from pre-school to adult. LYA's demands upon the Township parks are considerable and limit their availability of facilities for others and for passive use/facilities. Few, if any, communities in Chester County are more adequately served by recreation programs than Uwchlan Township.

4.3 PLAN FOR PARKS, RECREATION & OPEN SPACE IMPLEMENTATION STRATEGIES

As defined earlier in this Chapter, Plan Implementation strategies can be classified as immediate, short-range, long-range, and on-going.

A. IMMEDIATE TO SHORT-RANGE ACTIONS

Recommended immediate to short-range implementation actions proposed following the Plan Update adoption include those listed below:

1. RECREATION LANDS & FACILITIES

a. Planning Coordination

- (1) Expand the Shared Facilities Agreement with DASD to include the Shamona Creek and Uwchlan Hills Elementary Schools facilities.
- (2) Evaluate a park-school concept at Uwchlan Hills and Shamona Creek Elementary Schools similar to Lionville Park & Middle School. The use of school facilities during non-school hours increases recreational opportunities while reducing the need for separate parklands and recreation facilities. While not the typical park-school concept of developing adjacent park and school sites as a single unit, designed to integrate a range of educational and recreational activities, this opportunity exists on the undeveloped acreage of Uwchlan Hills and Shamona Creek Elementary Schools.

Participants/Responsible Parties: BOS, P&RB, Manager, Solicitor, planning consultant, DASD.

- (3) Create areas within existing parks as well as planned parks for "new sports" such as pickle ball and cricket.
- (4) Consider both a follow-up survey focusing on parks and recreation and an update to the Park and Recreation Plan.

Participants/Responsible Parties: BOS, P&RB, Manager, Solicitor, planning consultant.

- (5) Pursue an agreement with West Pikeland and Upper Uwchlan Townships for the use of athletic fields.

Participants/Responsible Parties: BOS, P&RB, Manager, Solicitor, adjacent townships.

- (6) Clean-up/repair stormwater management facilities within Martin Park and any other park, where necessary.

Participants/Responsible Parties: BOS, P&RB, PW, Manager, Engineer.

- (7) Implement the "senior park" on the Lionville Park campus adjacent to Lionville Middle School as proposed to contain pickle ball courts, swings, bocce ball, pavilion, exercise station for seniors, tables/benches for game playing, and paved path connection to the Uwchlan Walkway network.

Participants/Responsible Parties: BOS, P&RB, PW, Manager, Engineer, Solicitor.

2. WALKWAY & BIKEPATH NETWORK

a. Subdivision Ordinance

- (1) Create a new §513 Walkways which addresses the minimum width, grade, and materials standards for existing and proposed walkway development.

Participants/Responsible Parties: BOS, PC, P&RB, Manager, B/ZO, Solicitor, Engineer, planning consultant.

b. Planning Coordination & Plan Review

- (1) Incorporate the undeveloped tracts south of Turnbury and west of Windham, planned for Medium Density Residential and Commercial, into Township walkway network as the property affords a connection to Windham, Target Park, and the Uwchlan Trail along Dowlin Forge Road, as well as the opportunity for an extension south to potential commercial area(s).
- (2) Include the Rhondda sidewalk/trail network within the overall Township-wide system.
- (3) Complete the Newcomen Road/Timberlake Drive connection of the Uwchlan Trail between Rhondda and Valley Hill Road with a bituminous walkway and/or sidewalk through the development process or ordinance.
- (4) Add signage for the Uwchlan Trail at Dowlin Forge Rd and Fairweather Dr for sidewalk route to Deep Willow Dr and ultimately the Eagleview pedestrian network.
- (5) Evaluate the feasibility of extending the sidewalk along Woodland Drive from Wagon Trail Way west to Blue Ribbon Way and possibly to Peck Road.
- (6) Evaluate the feasibility of extending a sidewalk/trail along Worthington Road connecting the Gray property with the sidewalk/trail network of Rhondda.
- (7) Provide signage/wayfinding along all Township walkways identifying routes and directions.

Participants/Responsible Parties: BOS, PC, P&RB, Manager, B/ZO, Solicitor, Engineer, landowner/developer, planning consultant.

3. OPENSOURCE

a. Zoning Ordinance

- (1) Add a requirement for a minimum percent of usable open space within §609 Residential Open Space Option, §613 Planned Single-family Development, and any other applicable section that requires open space.

Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.

b. Subdivision Ordinance

- (1) Add a 4-Step Plan preparation process within §§401 & 402 Sketch and Preliminary Plans that requires the evaluation and plotting of sensitive environmental features, areas for natural open space, viewsheds, and potential road layout before including lots/buildings.

Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.

a. Planning Coordination & Plan Review

- (1) Incorporate the underdeveloped tracts adjacent to Windham and Turnbury, planned for Medium Density Residential and Commercial, into the Township open space network as the open space created protects wetland areas and provides for a connection to the existing Windham/Turnbury open space.
- (2) Continue to acquire through the open space within the development process, conservation easement, or actual purchase, a buffer along the Shamona Creek.

Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, B/ZO, Solicitor, Engineer, landowner/developer, conservation organization, planning consultant.

- (3) Require the creation of natural play space/natural oriented areas within new open space and where possible, existing open space.

Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.

B. LONG-RANGE ACTIONS

Recommended long-range implementation actions proposed after the short-range actions are completed include the following:

1. RECREATION LANDS & FACILITIES

a. Planning Coordination & Plan Review

- (1) Use the Residential Open Space Option of the R-1 District to obtain suitable neighborhood parkland within the open space of 71-acre Gray property, planned for Medium Density Residential, thereby providing needed recreation area for an underserved portion of the Township.
- (2) Development of the 240-acre DASD tract, planned for Commercial/Industrial, should include a community park that includes both active and passive recreation adjacent to Lionville Station Road easily accessible for those areas of the Township north of the PA Turnpike.
- (3) Development of the 27-acre Neilson tract south of the PA Turnpike, planned for Commercial/Industrial, should include parkland suitable for recreation on a portion of the property.
- (4) Consider lighted active recreation facilities in conjunction with the development of the 170-acre Neilson properties (Happy Days Farm) and the 240-acre DASD property, planned for Commercial/Industrial, due to their location between the two major roads within the Township as well as the nonresidential zoning district, both on and adjacent to the properties.
- (5) Develop park master plans for the applicable lands on DASD, Neilson & Gray tracts that include recreation facilities and pedestrian connections.
- (6) Provide a balance of active and passive recreation within new parks and add amenities/facilities such as band shell/amphitheater for concerts, fountains, and benches to existing parks where space permits and planned within new parks.
- (7) Continue to augment existing parks by acquiring adjacent parcels, if and when they become available.
- (8) Evaluate and consider the acquisition of the Pennypacker Country Club, if the property becomes available.
- (9) Continue to maintain an inventory of parks and recreational facilities and update park type and facilities standards as part of the 10-year update to the Comprehensive Plan and/or Open Space and Recreation Plan.
- (10) Continue to provide for a wide variety of recreational facilities and activities as well as identify needs to serve all age groups and abilities of Township residents as part of the 10-year update to the Comprehensive Plan and/or Open Space and Recreation Plan.

Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, B/ZO, Solicitor, Engineer, landowner/developer, planning consultant.

2. WALKWAY & BIKEPATH NETWORK

a. Planning Coordination & Plan Review

- (1) Connect the eastern and western Township trail networks by providing safe, attractive crossings at: Route 100 at Sheree Boulevard; Route 100 at Ship Road; Route 100 at Gordon Drive; Route 113 at Crump Rd/Eagleview Boulevard; and Route 113 at Devon Drive. These could be in the form of a bridge as well as a protected crosswalk. (See historic resources strategies)
- (2) Require the development of the 71-acre Gray property to provide sidewalks along all roads and a bituminous walkway within the open space connecting Century Oaks, Woodlark, and Rhondda.
- (3) Require the development of the 240-acre DASD tract to provide bituminous trails/walkways with the community park sidewalks along all roads, including the extension of Haywood Drive to Lionville Station Road.
- (4) Construct a bridge over the Pennsylvania Turnpike at either Eagleview Boulevard or Gordon Drive as part of the DASD property land development.

- (5) Require the development of the 170-acre Neilson/Vanguard properties to provide sidewalks along all roads and a trail loop to connect with the Sheree Boulevard section of the Uwchlan Trail.
- (6) Extend the bituminous walkway and/or sidewalk along Autumn Drive, into Century Oaks, into the Gray property (once developed) connecting to the sidewalk network of Woodlark and ultimately to the Rhondda trail network.
- (7) Extend the sidewalk from Shamona Creek Elementary/Marsh Creek 6th Grade Center east along Township Line/Milford Roads to the Township trail at Pennypacker Road.
- (8) Evaluate the feasibility of extending a sidewalk/trail along Route 113 connecting Eagleview Boulevard with Devon Drive.
- (9) Evaluate the feasibility of creating a continuous sidewalk on at least one side of the road within Historic Lionville Village.
- (10) Continue to evaluate walkway linkages and crosswalks throughout the Township as part of the 10-year update to the Comprehensive Plan and/or Open Space and Recreation Plan.
- (11) Where possible, widen the existing Uwchlan Trail to State standards to allow bike traffic; bikeway safety pavement markings where portions of the trail must share the road with traffic; and improve visibility and safety of walkway and bike path crossings by adding colored pavement markings or new signage.
- (12) Consider adding “historic trails” to applicable parks where appropriate.

Participants/Responsible Parties: BOS, PC, P&RB, EAC, HC, Manager, B/ZO, Solicitor, Engineer, landowner/developer, planning consultant.

3. OPEN SPACE

a. Planning Coordination & Plan Review

- (1) Require the development of the 71-acre Gray property to use the Residential Open Space Option within the R-1 District thereby creating open space to protect the floodplain and wetland areas.
- (2) Require an open space network within the development of the 240-acre DASD tract through a combination of the net-out and riparian buffer provisions of the ZO and/or conservation easements to preserve sensitive natural features such as floodplain, wetland, and steep slope.
- (3) As an alternative #2 above, consider targeting all or a portion of the DASD tract, as one of the larger undeveloped parcels in the Township, for the acquisition as open space and/or preserved land for agricultural use. *Landscapes3* supports the preservation and promotion of agricultural areas through its many goals and as one of the last remaining parcels of such, this acquisition is encouraged.
- (4) Require an open space network within the development of the 170-acre Neilson properties through a combination of the net-out and riparian buffer provisions and/or conservation easements to preserve sensitive natural features such as floodplain, wetland, and steep slope.
- (5) Require open space within the development of the 27-acre Neilson property south of the PA Turnpike through a combination of the net-out and riparian buffer provisions and/or conservation easements to preserve the floodplain and wetland areas.
- (6) Encourage the ‘park-school’ concept of shared recreational spaces to blend with the goal of providing ‘natural play spaces’ that is currently suggested for our open spaces. This could be done through collaborating stakeholder planning of new spaces or the gradual replacement or incorporation of ‘natural play spaces’ into current existing Township facilities and spaces.
- (7) Ensure historic resources are placed within open space of undeveloped properties to maximize preservation. (Also, see historic resources strategies.)
- (8) Consider adding a tree preservation ordinance for “heritage trees” to the applicable ordinance.

Participants/Responsible Parties: BOS, PC, P&RB, EAC, HC, Manager, B/ZO, Solicitor, Engineer, landowner/developer, planning consultant.

C. ONGOING ACTIONS

Recommended ongoing implementation actions include the following:

1. ACTIONS

a. Planning Coordination & Plan Review

- (1) Continue to acquire those “gaps” within the walkway network previously identified.
- (2) Continue to provide a buffer along the Shamona Creek through open space within the development process, conservation easement, or actual purchase.

Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, B/ZO, Solicitor, Engineer, landowner/developer, conservation organization, planning consultant.

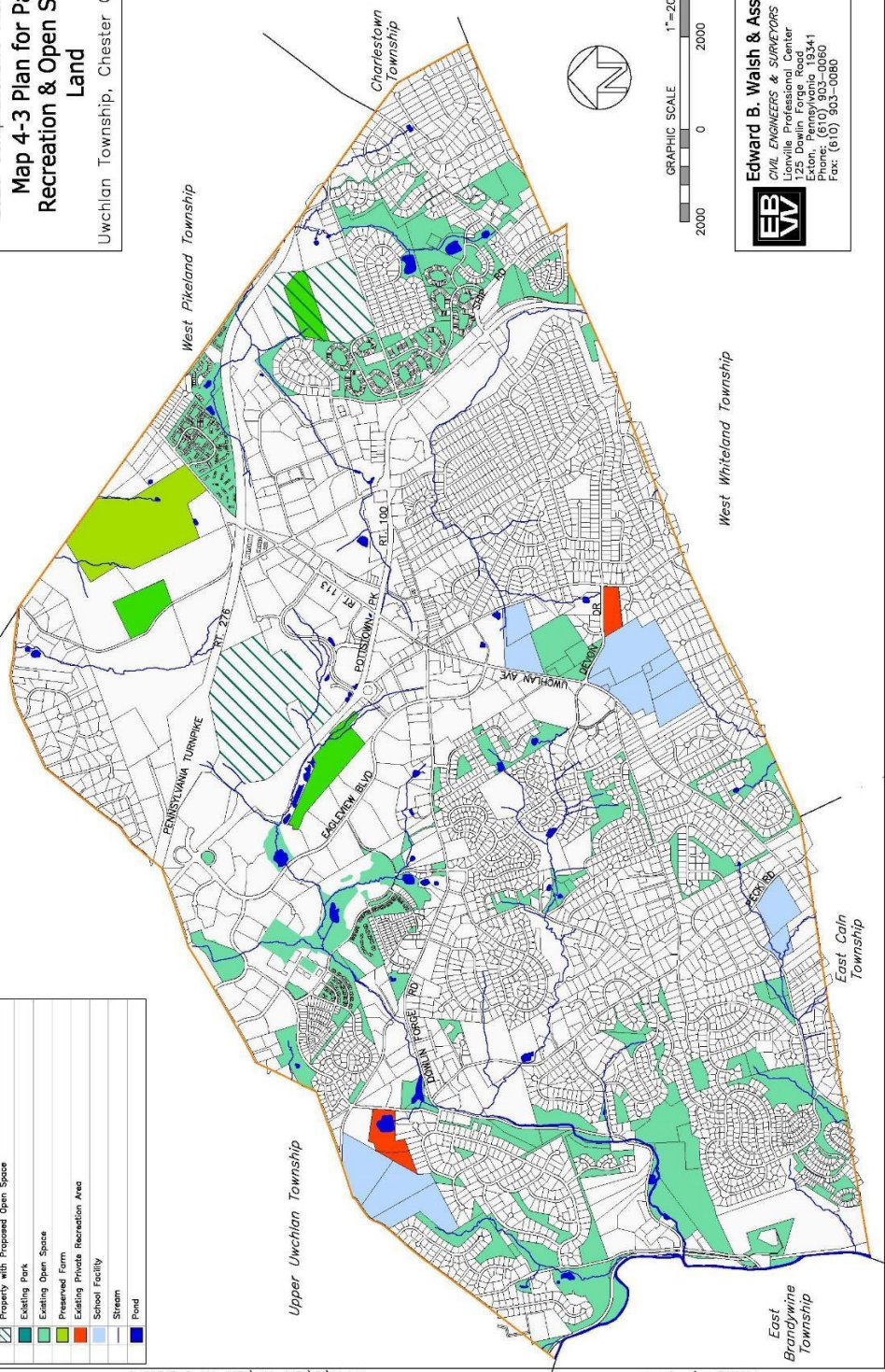
b. Programs, Personnel & Maintenance

- (1) Continue to support the Parks & Recreation Board efforts to maintain an inventory of existing recreational programs available to Township residents by providers such as LYA, DARC, and the YMCA.
- (2) Continue to fund the existing recreational programs, such as DARC, available to Township residents as recommended by the Parks & Recreation Board.
- (3) Continue to cooperate with LYA on the scheduling of field use and maintenance.
- (4) Continue the Township Staff and Parks & Recreation Board program for the operation and maintenance of parks and recreational areas and facilities.

Participants/Responsible Parties: BOS, P&RB, Manager, Solicitor, LYA, DARC, YMCA.

2020 Comprehensive Plan Update
**Map 4-3 Plan for Parks,
 Recreation & Open Space -
 Land**
 Uwchlan Township, Chester County, PA

Legend	
	Proposed Park & Open Space
	Property with Proposed Open Space
	Existing Park
	Existing Open Space
	Preserved Farm
	Existing Private Recreation Area
	School Facility
	Stream
	Pond



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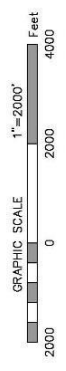
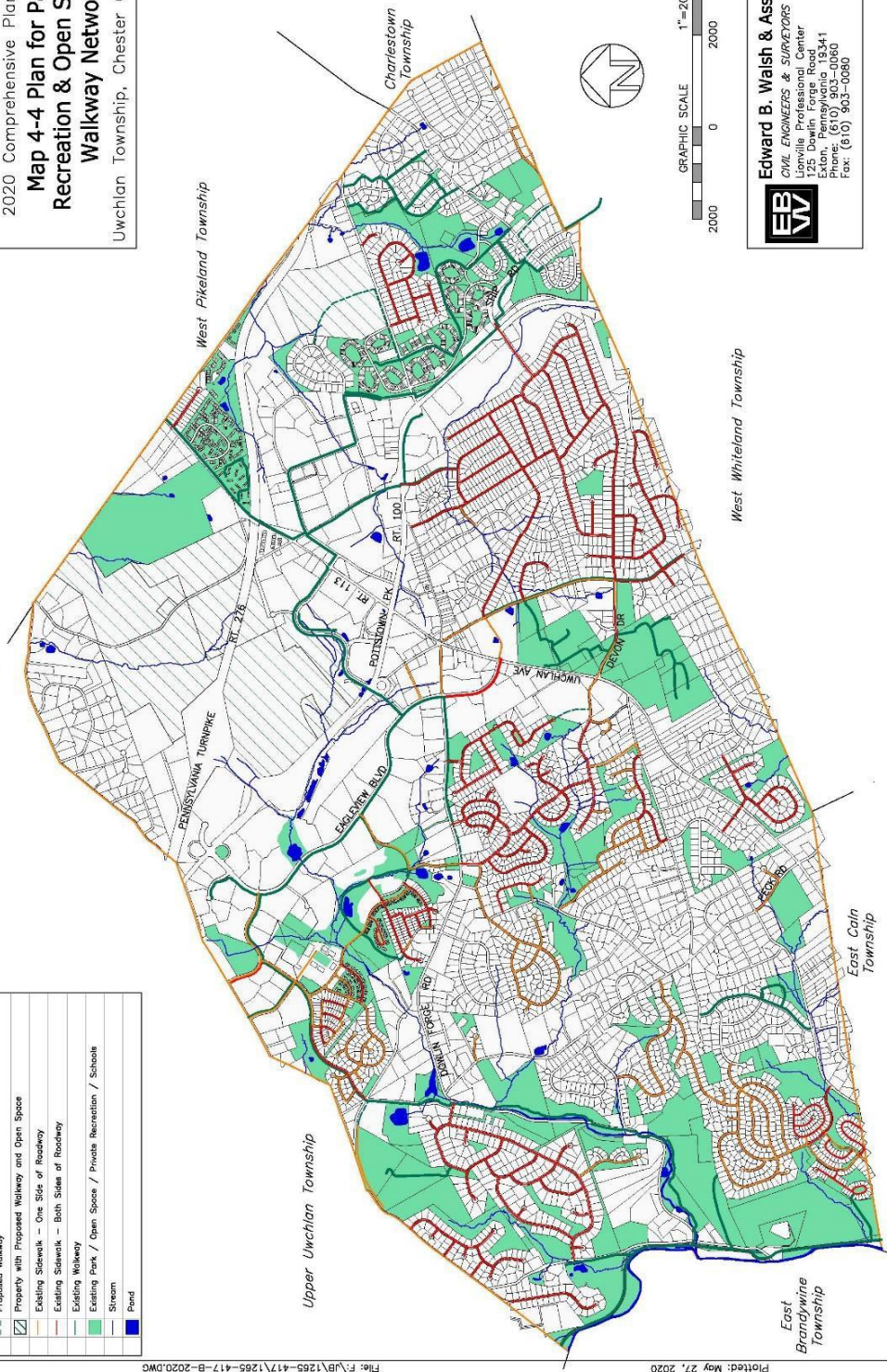
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Map 4-3
Plan for Parks & Recreation – Land (back)

2020 Comprehensive Plan Update
**Map 4-4 Plan for Parks,
 Recreation & Open Space -
 Walkway Network**
 Uwchlan Township, Chester County, PA

Legend

	Proposed Walkway
	Property with Proposed Walkway and Open Space
	Existing Sidewalk - One Side of Roadway
	Existing Sidewalk - Both Sides of Roadway
	Existing Walkway
	Existing Park / Open Space / Private Recreation / Schools
	Stream
	Pond



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File: F:\JB\1265-417\1265-417-B-2020.DWG
 Plotted: May 27, 2020

Map 4-4
Plan for Parks & Recreation – Walkway Network (back)

PLAN FOR TRAFFIC & CIRCULATION

The intent of the Plan for Traffic & Circulation is to establish Township policies regarding circulation based upon existing and anticipated conditions. These policies are the result of combining the traffic and circulation goals and objective of Chapter 3 with the analysis of the existing circulation of Chapter 2 and a reassessment of Act 209 and the Traffic Impact Fee Program for planned improvements. According to the Municipalities Planning Code (MPC) and as listed in Chapter 1, the Comprehensive Plan shall include *“A plan for movement of people and goods, which may include expressways, highways, local street systems, parking facilities, pedestrian and bikeway systems, public transit routes, terminals, airfields, port facilities, railroad facilities, and other similar facilities or uses.”*

As recognized in Chapter 2 of this Update, Uwchlan has implemented some major projects proposed by the 2010 Comprehensive Plan within the Township that facilitate traffic flow not only within the Township, but the region. The Township has actively implemented its Roadway Sufficiency Analysis and a Capital Improvements Plan under Act 209. This Plan element recommends specific roadway improvements, prioritizes improvement projects, and assigns costs implementation responsibility for each. The Plan for Traffic & Circulation also stresses the interrelationship with the Plan for Land Use by examining the impact of development generated by potential land uses upon the roadway network of the Township.

FUNCTIONAL CLASSIFICATION OF ROADWAYS

The functional classification of the Township road network was defined in Chapter 2. As development occurs within specific portions of the Township additional traffic is added to road network and the functional classification of affected road segments will be impacted. The continued build-out of Eagleview will result in Wharton Boulevard and Deep Willow Drive being designated major collectors. The Haywood Road extension to Lionville Station Road would initially be a minor collector road.

ANTICIPATED FUTURE GROWTH

As part of the preparation of this Plan, the anticipated future development within the Township was projected. Using the Institute of Transportation Engineers’ Trip Generation manual, new trips generated to and from each development identified in Tables 4-1 and 4-2 within the Plan for Land Use was estimated. A recap of Tables 4-1 and 4-2 indicates 475 dwelling units and 4,835,000 square feet of office and/or retail. A total of 7,206 new trips entering or exiting the Township during the afternoon peak hour are expected by the year 2040 assuming no increase in development due greater density or intensity zoning. Of these, 6,356 are “assessable” trips. Non-assessable trips may be exempt from a traffic impact fee because a fee has already been assessed or for other reasons. Pass-thru traffic on roads within the Township, such as PA 100, 113, and Whitford Road is one other example on non-assessable trips. For example, Table 4-1 lists 475 dwelling units, but only 102 are assessable as the remaining units were previously assessed.

A trip distribution model tracing the path of each vehicle as it travels through the Township, either to or from the forecasted development was implemented. After modeling the projected traffic on the roadway network within the Township, future roadway improvements were identified to help maintain acceptable roadway performance.

MASS TRANSIT

Support a continued effort to realize Chester County’s newly adopted *Landscapes3* comprehensive plan for transit development. As discussed in Chapter 2, a SEPTA bus route provides service to a small portion of the Township, running from Exton to Eagleview. The strategies below highlight expanding the bus service to other employment centers of the Uwchlan and providing shuttle service from designated spots in the Township to the Whitford and/or Exton train stations.

4.4 PLAN FOR TRAFFIC & CIRCULATION IMPLEMENTATION STRATEGIES

As defined earlier in this Chapter, Plan Implementation strategies can be classified as immediate, short-range, long-range, and on-going.

A. IMMEDIATE TO SHORT-RANGE ACTIONS

The Map 4-5, Plan for Traffic & Circulation, illustrates the proposed traffic improvement projects, which are also summarized in Table 4-5. Each short-range traffic improvement project is described in detail below.

1. Road Widening Projects

- a. Continue to widen PA Route 113 to a five-lane cross section between Holms Boulevard and Eagleview Boulevard/Crump Road for left turn accessibility and safety. Consider trees planted median and along both sides of Route 113 as traffic calming.
- b. Widen Devon Drive to a three-lane cross section with a landscaped median between PA Route 113 and Whitford Road. This widening will include median and channelization in the form of left turn lanes at the high school, LYA fields, Lionville Park, the YMCA, and developments as appropriate. Consider roundabouts and trees planted within any median and along both sides of Devon Drive as traffic calming where appropriate.

Participants/Responsible Parties: BOS, Manager, traffic consultant, Solicitor, Engineer, PADOT, CCPC, DVRPC.

2. New Road/Bridge Projects

- a. Pennsylvania Turnpike “slip ramps.” The Turnpike Commission would construct an off-ramp from the westbound lanes to Lionville Station Road as the responsibility of the developer of the current DASD property. The ramps will be designed to serve only motorists that purchase their tolls in advance through the “EZ-Pass” Program. Motorists with valid EZ-Pass transponders will be able to enter and exit the Turnpike without stopping to receive a ticket or pay a toll. The appropriate toll will be deducted from each user’s account.
- b. Construct a collector road between East Township Line Road and Lionville Station Road, essentially an extension of Haywood Road. This roadway would be part of any potential development of the DASD tract. Lionville Station Road would also be improved between the “Haywood Road Extension” and PA Route 113.

Participants/Responsible Parties: BOS, Manager, traffic consultant, Solicitor, Engineer, PA Turnpike Commission, PADOT, CCPC, DVRPC.

3. Intersection Improvement Projects

- a. PA Route 100 and Sheree Boulevard. A jughandle would be provided for northbound PA Route 100 left turns to Sheree Boulevard.
- b. New traffic signal installation at Ship Road and Newcomen Road.
- c. New traffic signal installation at Whitford Road and Devon Drive.
- d. Dowlin Forge Road and Deep Willow Drive. The curb radii are to be shortened for better sight distance at the intersection.
- e. Work with East Caln Township to widen the intersection of Route 113 and Bell Tavern/Garris Roads (not in Uwchlan Township; not shown on map).

Participants/Responsible Parties: BOS, Manager, traffic consultant, Solicitor, Engineer, PADOT, CCPC, DVRPC.

4. Bicycle and Non-Vehicular Recommendations

- a. Adopt applicable Active Transportation definitions to both §260-204 SALDO and §265-301 ZO such as: Shared Roadway, Sharrow, Signed Bike Routes, Bicycle Boulevard, Bike Lanes, Cycle Track, Sidewalk, Walkway, Crosswalk, Multiuse Trail, Sidepath, Use-restricted Trail, and Bicycle Parking.
- b. Amend §260-602.3 SALDO the minimum width requirements for sidewalks from four to five feet.
- c. Develop minimum trail standards (type, width, easements, surface treatments, etc.) within a new §260-513 SALDO.
- d. Include dimensional standards for on-road bike facilities as well as standard symbols and signage (i.e. sharrows, share the road signage, etc.) within the applicable ordinance.

- e. Require adequate bicycle parking near the entrance of proposed buildings in mixed use, commercial, medium-high density residential, and institutional zones within §265-607 ZO.

Participants/Responsible Parties: *BOS, PC, Manager, Solicitor, Engineer, CCPC, consultant.*

B. LONG-RANGE ACTIONS

Each long-range traffic improvement project is described below and shown on Map 4-5, Plan for Traffic & Circulation, and summarized in Table 4-5.

1. Road Widening Projects

- a. Widen PA Route 113 to a six-lane section across PA Route 100. This intersection was recently improved, but problems can again surface with all anticipated development. Three through lanes would be needed on eastbound and on westbound PA Route 113 should the additional development occur. Signing will be considered, directing vehicles westbound on PA Route 113 and turning right to northbound PA Route 100 to travel via Marsh Creek Drive.
- b. Improve Whitford Road to provide drainage and shoulder stabilization within the Township limits.

Participants/Responsible Parties: *BOS, Manager, traffic consultant, Solicitor, Engineer, PADOT, CCPC, DVRPC.*

2. New Road/Bridge Projects

- a. Construct a bridge over the Pennsylvania Turnpike at either Eagleview Boulevard or Gordon Drive as part of the **future** property land development.

Participants/Responsible Parties: *BOS, Manager, traffic consultant, Solicitor, Engineer, PA Turnpike Commission, PADOT, CCPC, DVRPC.*

3. Other Projects

- a. Improve the shoulder along PA Route 113 for emergency response and breakdowns. Shoulders are proposed along PA Route 113 between Peck Road and Devon Drive. This will facilitate emergency service access when traffic is heavy. Other benefits are that it will allow broken-down vehicles to get out of the traffic stream, will enhance bicycle transportation, and will facilitate right turns.

Participants/Responsible Parties: *BOS, Manager, traffic consultant, Solicitor, Engineer, PADOT, CCPC, DVRPC.*

- b. Consider development and adoption of a Pedestrian and Bicycle Mobility Plan. A formal Pedestrian and Bicycle Mobility Plan can further act to provide focus for Official Map updates to amend potential locations of active transportation facilities as well as to take a holistic view of the Township as it relates to pedestrian/bicycle mobility.

Participants/Responsible Parties: *BOS, Manager, Solicitor, Engineer, PADOT, CCPC, DVRPC, consultant.*

C. ONGOING ACTIONS

Recommended ongoing implementation actions include the following:

1. Mass Transit & Alternative Forms of Transportation

- a. Evaluate locations and install park and ride facilities on public lands where possible.
- b. Explore discussions with SEPTA to establish shuttle service from designated spots within the Township to Exton and Whitford Stations in neighboring West Whiteland.
- c. Explore discussions with SEPTA to expand bus service to additional employment centers in the Township.
- d. Accommodate the use of alternative fuel powered vehicles, the establishment of stations that distribute alternative fuels, and the retrofitting of existing buildings and parking facilities to provide for new fueling technologies, such as vehicle plug stations.

Participants/Responsible Parties: *BOS, Manager, traffic consultant, Solicitor, Engineer, SEPTA, PADOT, CCPC, DVRPC.*

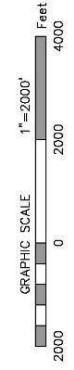
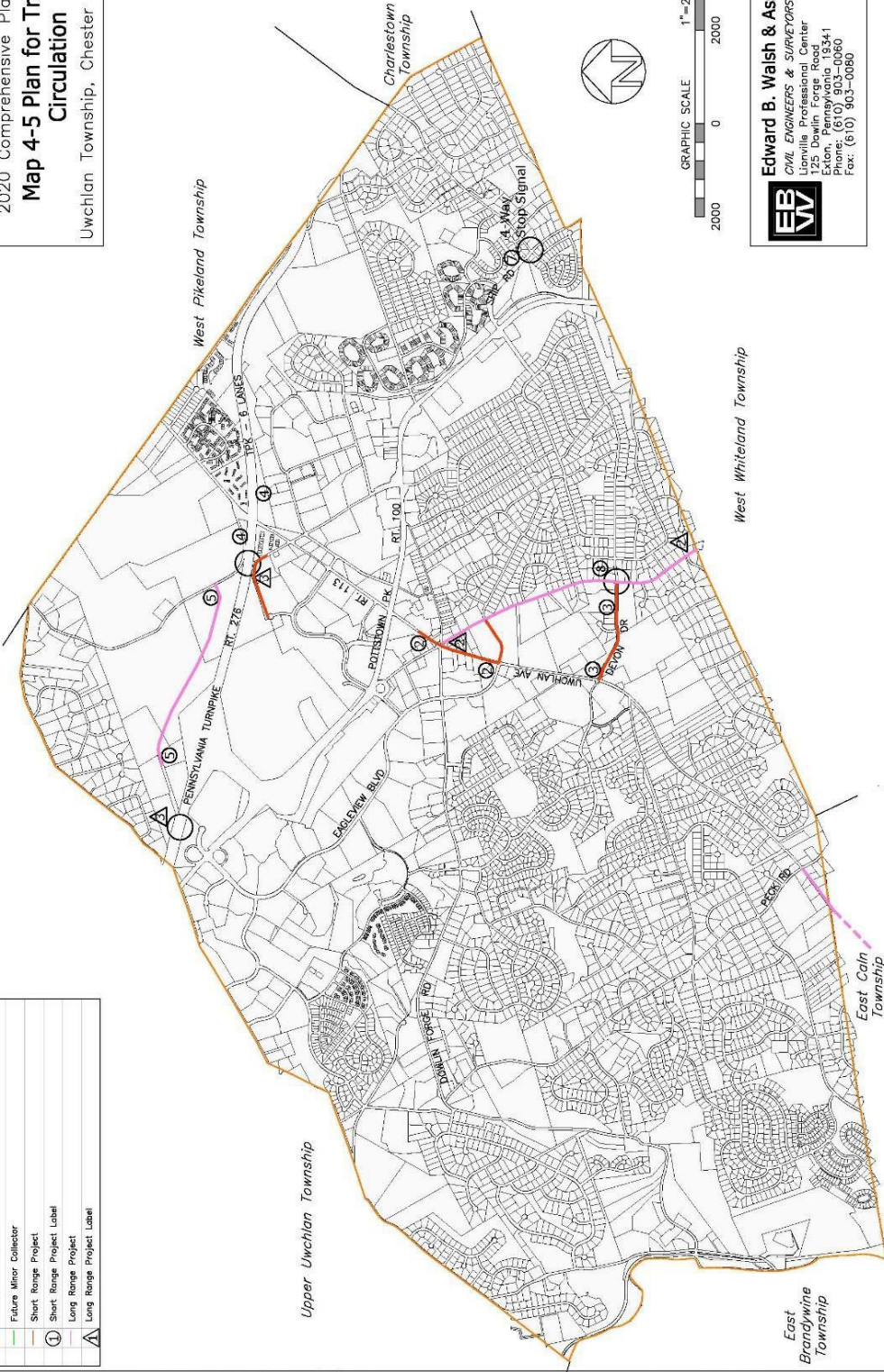
**TABLE 4-5
PROPOSED TRAFFIC IMPROVEMENT PROJECTS**

Project #	Description	Total/ Assessable Costs	Implementation Responsibility		
			Design	Right of Way	Construction
A	Immediate to Short-Range Projects				
1	Road Widening Projects				
1a	Continue to widen PA Route 113 to a five-lane cross section between Crossroads Square and Eagleview Boulevard/Crump Road. Consider trees planted median and along both sides of Route 113 as traffic calming.	\$1,500,000/ \$1,500,000	Uwchlan	Uwchlan	PADOT
1b	Widen Devon Drive to a three-lane cross section between PA Route 113 & Whitford Road. This widening includes a landscaped median and channelization in the form of left turn lanes at the high school, Lionville Park, LYA fields, YMCA, and developments as appropriate. Consider roundabouts and trees planted within any median and along both sides of Devon Drive as traffic calming where appropriate.	\$750,000/ \$750,000	Uwchlan	Uwchlan	PADOT
2	New Road/Bridge Projects				
2a	Construct ITS "Slip Ramps" to the Pennsylvania Turnpike. The the westbound off-ramp would intersect the new collector road connecting Township Line Road & PA Route 113.	\$1,850,000/ \$1,850,000	Uwchlan/ Developer	Turnpike Commission	Turnpike Commission
2b	Construct a new collector road between East Township Line Road & Lionville Station Road (extending Haywood Road) & improve Lionville Station Road between the "Haywood Road Extension" & intersection with PA Route 113.	\$2,500,000/ \$0	Developer	Developer	Developer
3	Intersection Improvement/Signal Installation Projects				
3a	Intersection Improvement — PA Route 100/Sheree Boulevard — Construct jughandle for northbound PA Route 100 traffic.	\$1,750,000/ \$1,750,000	Uwchlan	Uwchlan	Uwchlan
3b	New Traffic Signal — Ship Road/Newcomen Road.	\$215,000/ \$215,000	Uwchlan	Uwchlan	Uwchlan
3c	New Traffic Signal — Whitford Road and Devon Drive.	\$215,000/\$0	Uwchlan	Uwchlan	Uwchlan
3d	Intersection Improvement — Dowlin Forge Road and Deep Willow Drive. Shorten the radii to permit better sight distance.	\$310,000/\$0	Uwchlan	Uwchlan	Uwchlan
3e	Work with East Caln Township to widen intersection of Route 113 and Bell Tavern/Garris Roads (not in Uwchlan; not shown on map).		East Caln/ Uwchlan	East Caln/ Uwchlan	East Caln/ Uwchlan
B	Long-Range Projects				
1	Road Widening Projects				
1a	Widen PA Route 113 to six-lane section across PA Route 100.	\$750,000/\$0	Uwchlan	Uwchlan	PADOT
1b	Improve Whitford Road to provide drainage and shoulder stabilization within the Township limits.	\$650,000/\$0	Developer	Developer	Developer
2	New Road/Bridge Projects				
2a	Construct a bridge over the PA Turnpike at either Gordon Drive or Eagleview Boulevard as part of the DASD property development.	\$5,000,000/ \$0	Uwchlan	Uwchlan	Uwchlan
3	Other Projects				
3a	Improve shoulder along PA Route 113 for emergency services between Eagleview Boulevard and Peck Road.	\$300,000/\$0	Uwchlan	Uwchlan	PADOT
TOTALS		\$15,790,000/ \$6,065,000			

2020 Comprehensive Plan Update
Map 4-5 Plan for Traffic & Circulation
 Uwchlan Township, Chester County, PA

Legend

	Future Major Collector
	Future Minor Collector
	Short Range Project
	Short Range Project Label
	Long Range Project
	Long Range Project Label



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File: F:\J\B\1265-417\1265-417-B-2020.DWG Plotted: March 3, 2020

Map 4-5
Plan for Traffic & Circulation (back)

PLAN FOR HOUSING

The Plan for Housing establishes the policies for providing and maintaining a variety of housing opportunities within the Township. The Plan for Housing is created in conjunction with the Plan for Land Use. According to the Municipalities Planning Code (MPC) and as listed in Chapter 1, the Comprehensive Plan shall include *“A plan to meet the housing needs of present residents and of those individuals and families anticipated to reside in the municipality, which may include conservation of presently sound housing, rehabilitation of housing in declining neighborhoods and the accommodation of expected new housing in different dwelling types and at appropriate densities for households of all income levels.”* The existing dwelling unit data and population forecasts of Chapter 2, goals and objectives of Chapter 3, and Plan for Land Use all provide the background for the recommendations of this Plan element.

RELATIONSHIP TO POPULATION FORECASTS

The Plan for Housing uses the population forecasts prepared by the CCPC and DVRPC listed within the Inventory & Analysis as well as a build-out scenario highlighted on Tables 4-1 & 4-2 of the Plan for Land Use. By the year 2040, the CCPC and DVRPC forecasted population is 22,251 persons. This represents an increase of 3,179 persons over the 2020 forecast of 19,072 persons. The Plan for Housing accommodates not only a reasonable natural growth within the Township of the 1.7 persons/1,000 population noted in Chapter 2, but its regional share through in-migration settling in the 475 dwellings listed within developable land build-out scenario of Table 4-1. As discussed previously, these projections do not include any increase of dwelling units due a rezoning to a greater density than currently planned.

HOUSING TYPES

The Plan for Housing is also intended to continue to produce a variety of housing types and to minimize the cost of development. Under the build-out scenario of the Plan for Land Use the following is proposed:

- Areas planned for Low Density Residential accommodate 26 new single-family detached dwellings and 35 mobile homes.
- Areas planned for Medium Density Residential accommodate 126 new single-family detached dwellings.
- Areas planned for High Density Residential (Eagleview) accommodate 288 new condominium dwellings.

These new dwellings coupled with the existing dwellings listed within the Population, Housing & Employment section of Chapter 2 provide the following projected housing mix:

4,391 Single Family Detached Dwellings (59.3%)
1,324 Townhouses (17.9%)
1,246 Apartments (16.8%)
60 Twin Houses (0.8%)
336 Condominiums (0.6%) 2,906 (39.2%)
52 Mobile Homes (0.7%)
7,409 Total Dwelling Units

Minimizing development costs and possibly the costs of housing can be done through encouraging new development to either infill on smaller parcels within designated areas of the Township planned for Low and Medium Density Residential, or the use of flexible development options within the Zoning Ordinance for larger properties in areas planned for Medium and High Density Residential. Using the Residential Open Space Option, or Planned Single Family Development where applicable, on the only two large undeveloped properties planned for Medium Density Residential will “cluster dwellings together” thereby reducing the cost of infrastructure. Infill within those undeveloped parcels of Eagleview Residential planned for High Density Residential also reduces the cost of infrastructure.

EXISTING NEIGHBORHOODS & DEVELOPMENTS

The maintenance of housing will retain the attractiveness and value of a neighborhood or development. Code enforcement and homeowner/property owner maintenance are the primary means to maintain housing within neighborhoods and prevent decline. Several energy conservation techniques for residential use, applicable to housing, are highlighted in the Plan for Land Use within the ongoing implementation strategies.

4.5 PLAN FOR HOUSING IMPLEMENTATION STRATEGIES

As defined earlier in this Chapter, Plan Implementation strategies can be classified as immediate, short-range, long-range, and on-going.

A. IMMEDIATE TO SHORT-RANGE IMPLEMENTATION ACTIONS

Recommended immediate to short-range implementation actions proposed following the Plan Update adoption include those listed below:

1. ACTIONS

a. Zoning Ordinance

- (1) Continue to review and modify the area and bulk regulations within the residential districts §§265-501.6-8, 502.6-8, 503.6-8, and 504.6-8 to assure that residential areas have sufficient space, privacy, and convenience.
- (2) Advance the concept of low-income housing versus work-force housing in order to recognize and address a growing need.
- (3) Continue to maintain or raise residential values by reviewing the residential districts §§265-501.2-5, §502.2-5, §503.2-5, and §504.2-5 and remove certain uses permitted to prevent the introduction of incompatible uses within existing and new residential development.

Participants/Responsible Parties: BOS, PC, B/ZO, Solicitor, Engineer, planning consultant.

B. LONG-RANGE ACTIONS

Recommended long-range implementation actions proposed after the short-range actions are completed include the following:

1. ACTIONS

a. Planning Coordination

- (1) Monitor changes in state and national building codes and incorporate such within the Township Building/Housing Code for continued enforcement.

Participants/Responsible Parties: BOS, Manager, B/ZO, Solicitor, Engineer.

C. ONGOING ACTIONS

Recommended ongoing implementation actions include the following:

1. ACTIONS

a. Planning Coordination

- (1) Continue to provide a range of dwelling types and densities throughout the residential districts.
- (2) Continue to enforce the Township Building/Housing Code.
- (3) Amend the Plan Update to include the applicable 2020 Census data for population and housing when it becomes available.

Participants/Responsible Parties: BOS, PC, Manager, B/ZO, Solicitor, Engineer, planning consultant.

PLAN FOR NATURAL & HISTORIC RESOURCES

The Plan for Natural & Historic Resources establishes the policies for the preservation of these important resources within Uwchlan Township. According to the Municipalities Planning Code (MPC) and as listed in Chapter 1, the Comprehensive Plan shall include *“A plan for the protection of natural and historic resources to the extent not preempted by federal or state law, which includes, but is not limited to, wetlands and aquifer recharge zones, woodlands, steep slopes, prime agricultural land, flood plains, unique natural areas, and historic sites.”*

The Natural & Historic Resources section of Chapter 2 describes and maps Township natural and historic resources. The mapped resources include the following: Map 2-7, Land Resources; Map 2-8, Water Resources; and Map 2-9, Historic & Cultural Resources. Map 2-6, Protected Township Lands, of Chapter 2 depicts those portions of the Township which are “protected.” While this is a considerable amount of the Township, not all natural and historic resources are afforded protection when overlain onto Maps 2-5, 2-6, and 2-7 and therefore are vulnerable to disturbance. This Plan Element recommends specific implementation methods and priorities to preserve those vulnerable resources. The Plan for Natural & Historic Resources acknowledges the interrelationship with the Plan for Land Use and Plan for Parks, Recreation & Open Space by reinforcing the establishment of an open space network through the development process and land acquisition.

NATURAL RESOURCES

Land Resources Protection

Steep Slope

The Environmental Impact Assessment (EIA) report of the SLDO (§260-402.2.g.4(b)) requires the delineation of slopes 0- 15%, 15-25%, and 25%+ for all Preliminary Plans. The Lot Area definition of the Zoning Ordinance nets out steep slope greater than 15%, which affords some protection by limiting the density and intensity of development, but does not totally prevent the development of areas of steep slope. Areas of steep slope (15-25% and particularly 25%+) can be preserved by the creation of Zoning Ordinance amendments that restrict or prohibit development of steep slope. Woodland and understory vegetation should be maintained in steep slopes to reduce stormwater runoff, soil erosion, sedimentation, and mass wasting of soil as well as maintaining wildlife habitat. Impervious surfaces should be restricted and the density of structures should be kept very low to reduce the overall impacts from development.

Woodlands

Significant woodland areas can be preserved through the creation of subdivision and land development ordinance provisions that limits tree removal, protects trees during construction, and requires replacement for specific trees removed. The Township outlined a successful tree replacement formula for the Williamsburg development which was almost entirely wooded. This formula can be used for those wooded properties within the Township that remain undeveloped.

Habitat Areas

The protection of open space in Uwchlan Township is essential to the conservation of habitat for the many species of plants and animals. Uwchlan has established open space networks within developments as well as the purchase of sensitive properties in an effort to maintain continuous corridors of open space within the Township. These corridors allow for normal movement and dispersion of wildlife and to accommodate migration patterns. The protection of wildlife habitat will generally follow those objectives to protect open space, therefore the goal of providing open space within developments should continue to be pursued.

Water Resources Protection

Floodplains, Wetlands, Riparian Buffers, Hydric Soils & Headwaters

Although state and federal regulations generally limit development of floodplains and wetlands, the regulations do not prohibit all development from occurring. The Riparian Setback and Buffer Area definition of the Zoning Ordinance that includes ponds, permanent and intermittent streams and creeks, floodplain, and wetlands, preserves these resources by requiring a 50-foot buffer around such, and should continue to be carefully regulated by the Township. Due to their importance as recharge areas and wildlife habitat, and hydric soils, could be afforded similar protection as the riparian

buffer by the creation of a critical water resources overlay and/or an expanded buffer to assist in the preservation of these resources.

Stream water quality classification (discussed in Chapter 2) dictates the extent to which drainage basins/watersheds are regulated by PADEP in terms of erosion and sedimentation control and ultimately the National Pollutant Discharge Elimination System (NPDES) permitting process. The Township should continue monitoring any change in designation by PADEP.

4.6 PLAN FOR NATURAL RESOURCES IMPLEMENTATION STRATEGIES

As defined earlier in this Chapter, Plan Implementation strategies can be classified as immediate, short-range, long-range, and on-going.

A. IMMEDIATE TO SHORT-RANGE ACTIONS

Recommended immediate to short-range implementation actions following the Plan Update adoption include those listed below:

1. Overall Natural Resources

a. Planning Coordination

- (1) Support comprehensive protection and restoration of the Township's ecosystems of including woodlands, wetlands, surface waters, riparian corridors, groundwater, floodplains, soil health, steep slopes, aquatic and wildlife habitats, and natural heritage areas.
- (2) Develop an environmental resources inventory as a baseline, including flood-prone areas, swamps and other unique natural areas, for the purpose of obtaining information on the proper use, protection, and management of those areas.

Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.

- (3) Support regional natural resource protection efforts and promote a resource-based planning approach.

Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant, CCPC, PADEP.

- (4) Review and comment on environmental issues associated with subdivision and land development applications and submissions, and proposed ordinance amendments.

Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.

- (5) Develop environmental education awareness programs for Township residents.
- (6) Work with schools and local environmental groups to enhance and promote community environmental education programs.
- (7) Investigate and make recommendations regarding grants available to the Township related to environmental issues and education.

Participants/Responsible Parties: BOS, EAC, Manager, planning consultant.

2. Steep Slope

a. Zoning Ordinance

- (1) Evaluate the impact and/or implementation of the steep slope regulations of §265-618.

Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.

3. Habitat Areas and Pennsylvania Natural Diversity Index (PNDI) Sites

a. Zoning Ordinance

- (1) Evaluate current standards and monitor State and Federal action regarding new regulations.

Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.

4. Woodlands

a. Subdivision Ordinance

- (1) Promote the planting of native trees and plants within open spaces and brownfield sites.
- (2) Cross-reference the native plant list between the SALDO and ZO.

Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Engineer, planning consultant.

- (3) Protect woodlands from invasive pests and perform periodic inspection and maintenance to remove invasive plant species.
- (4) Evaluate the need to create a tree replacement program in §260-512 Tree Protection, or reference and modify the standards in §265-619.1.a(2) of the ZO to address such.

Participants/Responsible Parties: BOS, EAC, Manager, B/ZO, Engineer, planning consultant.

5. Floodplain, Wetland, Riparian Buffer, Hydric Soils & Headwaters

a. Planning Coordination

- (1) Where possible, add increased riparian buffer setbacks to maintain the quality of unimpaired streams and improve the water quality of impaired streams.
- (2) Restore impaired streams and protect unimpaired streams from stormwater pollutants by the use of best management practices.
- (3) Consider natural/unpaved walkways adjacent to waterways in an effort to reduce erosion and stream degradation, thereby promoting environmental/historical education furthering the goals of community education by way of signage and self-guided tours. This action is supported by the goal in our plan for the 'preservation of sensitive natural features' as well as several goals of *Landscapes3*.
- (4) Promote groundwater recharge through the reduction of stormwater runoff and pollution.
- (5) Improve the resiliency of flood prone areas and perform flood mitigation.
- (6) Work with existing Township watershed associations and other interested parties in preparing a Township-wide watershed management plan.
- (7) Consider strengthening the definition of Riparian Setback and Buffer Area definition by creating a new §265-621 Riparian Buffers within the ZO.

Participants/Responsible Parties: BOS, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant, watershed/conservation organization(s).

B. LONG-RANGE ACTIONS

Recommended long-range implementation actions proposed after the short-range actions are completed include the following:

1. Land Preservation Methods

a. Planning Coordination

- (1) The Township can acquire tracts of land, or portions of tracts, in a variety of ways, including gifts, open space easements, outright purchase, condemnation, and by the use of ordinances such as the mandatory dedication of open space. The Township's purchase and preservation efforts along the East Branch of the Brandywine are examples of such land acquisition.

Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, Solicitor, landowner, conservation organization, planning consultant.

- (2) In addition to regulatory techniques, there are other preservation tools where the principal incentives are federal income, gift, and estate tax reductions. These techniques require negotiation and rely heavily on the willingness and

desire of a landowner to preserve open space resources. Though the tax incentives associated with these tools are likely to generate larger and more immediate financial benefits for the taxpayer, they are also irreversible.

All such preservation tools involve a taxpayer's gift of property or property rights to conservation organizations and/or municipal governments. The types of land donations include: 1) outright gifts of land; 2) gifts of land with retained life estate; 3) bargain sales of land; 4) gifts by codicil; and 5) conservation easement donations. Several private conservation organizations actively promote these preservation tools in Chester County; in Uwchlan, notably, the Natural Lands Trust and Brandywine Conservancy.

The conservation easement provides a way in which a property owner can participate in the long-term protection of valuable open space resources on lands intended to remain in private hands. It is legal agreement between the property owner and an eligible recipient (usually a conservation or government organization), under which the landowner (donor) establishes restrictions (usually in perpetuity) over the use of the property. The recipient (donee) agrees to monitor the eased areas to assure that the easement terms are upheld. Because the public benefits from the permanent preservation of important scenic, historic, and natural areas, the donor may qualify for certain federal income tax deductions on the basis that the donated easement is a charitable contribution. Estate and gift tax deductions also can occur from an easement donation, as a result of the reduction in valuation for those tax purposes. Since the landowner continues to own and manage the land, he also continues to pay appropriate taxes (though these may be reduced where use-value assessments exist). The degree of protection varies with each easement and each site, as do the conditions set between the donor and donee. Generally, easements are designed to protect identified open space resources, preclude or specifically limit development, and maximize resource protection objectives of both individual landowners and the Township. Preservation of the Matthews Farm is an example of conservation easement use within Uwchlan.

Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, Solicitor, Engineer, landowner, conservation organization, planning consultant.

C. ONGOING ACTIONS

Recommended ongoing implementation actions include the following:

1. ACTIONS

a. Planning Coordination

- (1) Currently the Residential Open Space Option, Planned Single Family Development, and Planned Commercial Industrial District regulations of the Zoning Ordinance, when utilized, have preserved floodplain, wetlands, and generally hydric soils. The Township policy continues to be the inclusion of all environmentally sensitive areas within the open space of developments.

Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.

- (2) Condemnation is essentially the Township exercising its right of eminent domain, which is the authority granted to a government to take, or to authorize the taking of, private property for public purposes. There must be just compensation to the property owner for any such action, according to principles of fair market value.

One form of condemnation is through the use of an Official Map which the Township is empowered to enact by Article 4 of the Municipalities Planning Code. The Township adopted its Official Map in October 2009, a revision may occur upon completion of this Plan in 2020. An Official Map identifies the exact location of existing and proposed public streets and grounds, of which land for parks as well as open space could be designated. The key action of the Township involves the initiation of condemnation or purchase of land designated as public within one year of a landowner's application for subdivision or land development.

Participants/Responsible Parties: BOS, PC, Manager, Solicitor, Engineer.

- (3) The mandatory dedication of open space or a fee-in-lieu of land generates either open space within developments or provides a fee to use in the purchase of land. The Policy Statement for Contributions to Township Funds does require a fee for park development. The Municipalities Planning Code provisions requires formal adoption of a recreation plan

as a prerequisite to implementation of mandatory dedication provisions, which the Township enacted in 1992, amended in 2000, further amended with the 2010 Plan Update, and now amended again with this Update.

Participants/Responsible Parties: BOS, PC, P&RB, Manager, Solicitor.

- (4) Consider designating, acquiring or creating space within the Township to create a public environmental education area that incorporates natural play spaces, environmental and historical spaces to execute community education goals, and promotes a 'sense of community and destination' within the township. This could be created through a collaborative effort of Township stakeholders as well as community stakeholders (supports communication and collaboration with DASD and other public entities).

Participants/Responsible Parties : EAC, P&RB, HC, Manager.

HISTORICAL & CULTURAL RESOURCES

Historic and Cultural Resources Protection

Historic Sites

Structures, sites and potential districts of historical significance and integrity that are highlighted on Map 2-7, Historical & Cultural Resources, may be eligible for listing in the National Register of Historic Places or part of an Act 167 Historic District. In an effort to provide alternatives to demolition of historic resources, the Comprehensive Plan Task Force in conjunction with the Uwchlan Township Historical Commission (UTHC) included in 2009 use options within §265-612 (ZO), Historic Preservation, as adaptive reuse of a valuable resource. Subsequent to the aforementioned effort and as highlighted in Chapter 2 regarding historic preservation, the Township adopted new historic resource definitions and augmented §265-612 (ZO) with new standards such as: historic resources map and inventory classifications for Class 1, 2 & 3 resources; and special use provisions (both use opportunities and bonuses).

4.7 PLAN FOR HISTORIC RESOURCES IMPLEMENTATION STRATEGIES

As defined earlier in this Chapter, Plan Implementation strategies can be classified as immediate, short-range, long-range and on-going.

A. IMMEDIATE TO SHORT-RANGE ACTIONS

Recommended immediate to short-range implementation actions following the Plan Update adoption include those listed below:

1. ACTIONS

a. Planning Coordination

- (1) Add a lower threshold, as applicable, for requiring archaeological research and other resource identification.

Participants/Responsible Parties: BOS, PC, HC, Manager, B/ZO, Solicitor, planning consultant.

b. Zoning Ordinance

- (1) Make recommendations for amendments as needed.

Participants/Responsible Parties: BOS, PC, HC, Manager, B/ZO, Solicitor, planning consultant.

c. Subdivision Ordinance

- (1) Make recommendations for amendments as needed.
- (2) Add the Historical Commission to the review of land development plans, as needed.

Participants/Responsible Parties: BOS, PC, HC, Manager, B/ZO, Solicitor, planning consultant.

B. LONG-RANGE ACTIONS

Recommended long-range implementation actions proposed after the short-range actions are completed include the following:

1. ACTIONS

a. Planning Coordination

- (1) Consider a historic district for Dowlin Forge that would encompass the complex of buildings and ruins that evolved around the iron forge and continue the restoration project.

Participants/Responsible Parties: BOS, PC, HC, Manager, Building/ZO, Solicitor, planning consultant.

- (2) Consider National Register listing for additional historic resources in Uwchlan Township. The structures, sites, and districts of historic significance and integrity identified in the UTHC's inventory may be eligible for listing on the National Register of Historic Places. This "listing" process involves the submission of a Pennsylvania Historic Resource Survey form to the Pennsylvania Historic Museum Commission (PHMC) in which the property is described both architecturally and historically, and photographic evidence supplied of its structural condition. The PHMC staff makes the initial determination of eligibility and gives permission to the applicant to proceed with the preparation of a National Register of Historic Places Nomination to be approved at the federal level through the National Bank Service.

Participants/Responsible Parties: BOS, HC, Manager, B/ZO, Solicitor, planning consultant.

- (3) Using the UTHC's inventory, require historic resources to be placed and preserved within the open space design of undeveloped properties as each property is proposed for development.

Participants/Responsible Parties: BOS, PC, HC, EAC, Manager, B/ZO, Solicitor, planning consultant.

- (4) Create an interactive webpage to be modified and/or updated by the UTHC and/or Township Staff that allows a viewer to learn about each of the historic sites listed.

Participants/Responsible Parties: BOS, HC, Manager, Township Staff.

- (5) Encourage historical awareness community involvement through: open house schedule and other events; traditional contact methods; online information; and continued research of historic resources.

Participants/Responsible Parties: BOS, HC, Manager, Township Staff.

- (6) Maintain artifacts and documents through continued conservation methods.

- (7) Continue historic resource condition reports.

Participants/Responsible Parties: HC, Manager, Township Staff.

C. ONGOING ACTIONS

Recommended ongoing implementation actions include the following:

1. ACTIONS

a. Planning Coordination

- (1) Continue the maintenance of the Historic Resources Inventory data base.
- (2) Updates of older historic resources.
- (3) Review of historic resource alteration applications whether individual or part of a land development application.

Participants/Responsible Parties: BOS, HC, Manager, B/ZO, Solicitor, planning consultant.

PLAN FOR ENERGY CONSERVATION, WASTE REDUCTION, REUSE & RECYCLING

The Plan for Energy Conservation, Waste Reduction, Reuse & Recycling establishes the policies for the conservation of these important resources within Uwchlan Township. According to the Municipalities Planning Code (MPC) and as listed in Chapter 1, the Comprehensive Plan shall include an “Energy conservation plan element. To promote energy conservation and the effective utilization of renewable energy sources, the comprehensive plan may include an energy conservation plan element which systematically analyzes the impact of each other component and element of the comprehensive plan on the present and future use of energy in the municipality, details specific measures contained in the other plan elements designed to reduce energy consumption and proposes other measures that the municipality may take to reduce energy consumption and to promote the effective utilization of renewable energy sources.”

4.8 PLAN IMPLEMENTATION STRATEGIES

As defined earlier in this Chapter, Plan Implementation strategies can be classified as immediate, short-range, long-range and on-going.

A. IMMEDIATE TO SHORT-RANGE ACTIONS

Recommended immediate to short-range implementation actions following the Plan Update adoption include those listed below:

1. ACTIONS

a. Energy Conservation Activities

- (1) Complete energy audits of Township buildings and facilities for baseline numbers.
- (2) Reduce energy consumption through the purchase of supplies and equipment, or when upgrading physical plant elements such as lighting, cooling or heating systems.
- (3) Establish a minimum average fuel efficiency standard for the procurement of Township vehicles.
- (4) Inform residents about strategies for conserving energy and support education efforts that encourage energy and resource saving practices at home, at school, and at the work place.
- (5) Continue to support, expand, and improve recycling programs in all sectors.
- (6) Support programs that offer consumers opportunities to re-use materials which would otherwise be disposed of, such as permitting curbside pickup for reuse, or “free-cycling”.
- (7) Support incentives for additional electric charging stations and similar new energy conservation technologies.

Participants/Responsible Parties: BOS, PC, EAC, Public Works, Manager, Township Staff, Township newsletter, consultant.

B. LONG-RANGE ACTIONS

Recommended long-range implementation actions proposed after the short-range actions are completed include the following:

1. ACTIONS

a. Energy Conservation Activities

- (1) Evaluate the creation of ordinances that promote and facilitate the use and generation of alternative energy in building construction and rehabilitation.
- (2) Evaluate the use of incentives for the construction and rehabilitation of buildings that use a green building component as well as traditional energy conservation practices, such as those which will provide natural light and fresh air.
- (3) Support solar, windmill, innovative stormwater management technics initiatives for energy conservation.

Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.

C. ONGOING ACTIONS

Recommended ongoing implementation actions include the following:

1. ACTIONS

a. Energy Conservation Activities

- (1) Promote energy efficiency standards, such as Leadership in Energy and Environmental Design (LEED) and Energy Star certification for the development or redevelopment of buildings, properties, and neighborhoods.
- (2) Support programs that allow residents to improve energy efficiency in their homes through weatherization, efficient climate control, and the conservation of hot water.
- (3) Promote energy efficiency standards, such as LEED and Energy Star certification, and the installation of alternative energy generation systems in commercial and industrial operations.
- (4) Support construction and development projects that implement energy conservation, including demonstration projects and programs.

Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Engineer, consultant.

b. Waste Reduction Activities

- (1) Encourage the reduction of single-plastics usage.
- (2) Organize and establish Township-wide pickups for waste streams that can be removed from municipal trash (old paints, electronics, plastics and cardboards not picked up, clothing and household donations)
- (3) Advocate education on composting and reuse of items
- (4) Consider some form of incentives to use reuse bags when shopping
- (5) Encourage the donation of clothing and household item collection versus discarding in trash by providing centralized drop-off spots.

Participants/Responsible Parties: BOS, EAC, Public Works, Manager, Township Staff, Township newsletter, consultant.

c. Reuse and Recycling Activities

- (1) Encourage composting biodegradable/recyclable waste materials.
- (2) Providing reuse materials to Township residents.
- (3) Continuing to provide areas for recycling drop-off/pickup for Township residents and businesses.

Participants/Responsible Parties: BOS, EAC, Public Works, Manager, Township Staff, Township newsletter, consultant.

CHAPTER 5 INTERRELATIONSHIP OF PLAN ELEMENTS & ACTION PLAN

INTERRELATIONSHIP OF PLAN ELEMENTS

The Municipalities Planning Code as highlighted in Chapter 1, states the Comprehensive Plan shall include “A statement of the interrelationships among the various plan components.” Some of the major interrelationships of the Plan Elements of Chapter 4 are highlighted below.

PLAN FOR LAND USE AND PLAN FOR TRAFFIC & CIRCULATION

The Plan for Traffic & Circulation has a direct link to the Plan for Land Use by applying trip generation factors to the proposed land uses listed in Tables 4-1 and 4-2 which, in turn, highlight increased volumes on specific road segments that will ultimately focus upon particular road improvements. Also, the properties and their resulting development listed in Tables 4-1 and 4-2 transition into improvement projects and costs and ultimately the Act 209 fee, as applicable, to fund portions of the designated improvements. Mass transit that exists, Bus Route 204, connects the higher density residential/employment center of Uwchlan with similar areas in West Whiteland generally along the major corridor of Route 100. The Township walkway network of trails and sidewalks totals 60+ miles that connects the various neighborhoods with parks, schools, and shopping.

PLAN FOR LAND USE AND PLAN FOR COMMUNITY FACILITIES & UTILITIES

The Plan for Land Use highlights the mosaic of community facilities and utilities such as the schools, public utility facilities, religious and civic facilities, cemeteries, emergency service facilities, and Township buildings and grounds. The Plan for Community Facilities & Utilities proposes continued municipal services and recommends cooperation with those regional and local facilities to continue providing services to the Township.

PLAN FOR LAND USE AND PLAN FOR PARKS, RECREATION & OPEN SPACE

The parks and open space networks, public and private, form an integral part of both the Plan for Land Use and the Plan for Parks, Recreation & Open Space. The parks and open space not only provide an interconnection of land uses within the Township, but are augmented by the 60+ mile trail/sidewalk network linking neighborhoods with parks, schools, and shopping as another means of connecting the various uses. Each Plan emphasizes the use of the Residential Open Space Option, or other similar open space generating development method, on the Gray property and other large undeveloped parcels planned for Medium Density to set aside open space for recreation and the preservation of sensitive natural features. Recreation and open space are also recommended for the DASD and Nelson properties when developed as part of the Plan for Parks, Recreation & Open Space, which will enhance these areas planned for Commercial/Industrial.

PLAN FOR LAND USE AND PLAN FOR HOUSING

The Plan for Land Use establishes the range of densities within the areas planned for Low, Medium, and High-Density Residential areas and provides a build-out scenario that forecasts population and dwelling units summarized in Table 4-1. The Plan for Housing expands the dwelling unit forecasts by listing unit types and recommends the use of the flexible development options of the Zoning Ordinance to reduce housing costs and strengthen code enforcement for proper maintenance of housing to enhance the value and attractiveness of neighborhoods.

PLAN FOR LAND USE AND PLAN FOR NATURAL & CULTURAL RESOURCES

The Plan for Land Use emphasizes the use of the Residential Open Space Option on the Gray property and other large undeveloped parcels planned for Medium Density to set aside open space for the preservation of sensitive natural features that would include the floodplain, wetland, riparian buffer, and greenways recommended by the Plan for Natural & Cultural Resources.

PLAN FOR PARKS, RECREATION & OPEN SPACE AND PLAN FOR NATURAL & CULTURAL RESOURCES

The recommendation for the creation of open space within any development of the Gray property and other large undeveloped residential properties, DASD, and Nelson tracts contained in the Plan for Parks, Recreation & Open Space

strengthens the preservation of sensitive natural features initiative highlighted within the Plan for Natural & Cultural Resources. The continued establishment of buffers along stream corridors to preserve water resources such as floodplain and wetland are common to both Plans.

RELATIONSHIP OF THE PLAN UPDATE TO THE COUNTY PLAN – LANDSCAPES3

The Municipalities Planning Code indicates, as listed in Chapter 1, the Comprehensive Plan shall include “A statement indicating that the existing and proposed development of the municipality is generally consistent with the objectives and plans of the county comprehensive plan.”

A brief summary of the consistency between this Plan Update and *Landscapes3* is provided, rather than comparing each item listed in *Landscapes3* and the recommendations of the Plan Update. Reading the stated municipal actions of *Landscapes3* for the various categories one could just as easily be describing Uwchlan’s past policies and planning efforts as well as the recommendations in this Plan Update. Uwchlan provides a range of residential densities and a variety of land uses both within existing development of the Township and permitted in its Zoning Ordinance. The Township contains residential neighborhoods, employment centers, shopping centers, restaurants, schools, churches, parks, and emergency service providers, all uses integral to the County’s *Suburban Landscape*. Much of the substantial parks and open space network within the neighborhoods of Uwchlan is the result of the creative development options available in the Zoning Ordinance and the past policies of the Township. Eagleview, the only development of its kind in Chester County, is an example of Township/developer cooperation to create a zoning district and community that reflects the “Smart Growth” concept now advocated by *Landscapes3*. As described in Chapter 4, Uwchlan has an extensive transportation network of roads, trails, and sidewalks. The park-school concept at Lionville Park and Middle School along with the Shared Facilities Agreement with two additional school facilities are two other examples of the Township actions mirroring the recommended actions of *Landscapes3*. The Township offers multiple municipal services and most of Uwchlan is served by public sewer and water, key elements of the *Suburban Landscape*.

The Plan Elements of Chapter 4 are consistent with *Landscapes3*.

ACTION PLAN

The usefulness of a comprehensive plan is related to the extent that plan proposals are implemented. The purpose of the Action Plan for this Plan Update is to link the goals and objectives of Chapter 3 and specific strategies for implementation detailed within the Plan Elements & Implementation of Chapter 4 with the establishment of participants essential to their implementation. The strategies listed in this Action Plan are essentially condensed versions of those proposed for each of the Plan Elements in Chapter 4 and retain the same prioritization:

Immediate: Implementation should begin within six months to one year after Plan adoption as those recommendations identified as “immediate” priorities are issues of high concern.

Short-term: Implementation should occur within one to three years after Plan adoption as recommendations identified as “short-term” priorities are those that may require a degree of preliminary investigation before they can be effectively implemented.

Long-term: Implementation should occur within three to ten years after adoption of the Plan as these recommendations generally do not require the same degree of urgency as others. “Long-term” items may also require a significant amount of evaluation prior to implementation or when funding becomes available.

On-going: Implementation is already occurring on some level and a more concerted effort may be required.

The Plan Elements of Chapter 4 should be consulted for more detail. Strategies discussed in multiple Plan Elements (i.e. recommended use of the Residential Open Space Option [ROSO] for specific properties in the Plan Land Use and Plan for Parks, Recreation & Open Space) are only included within the first Plan Element listed. Actions are grouped by method of implementation such as zoning ordinance, subdivision ordinance, coordination, etc. The principal groups responsible for the implementation are listed below each action as Participants, but are not meant to be all inclusive. Supervisors, Planning Commission, Parks & Recreation Board, Historical Commission, Environmental Advisory Council, Manager, Building & Zoning Officer, Solicitor, Engineer, and Municipal Authority all refer to the Township; all others are self-explanatory as they have been discussed throughout this Plan Update.

Action Plan	
A. IMMEDIATE TO SHORT-RANGE ACTIONS	
Recommended immediate to short-range implementation actions from the individual Plan Elements of Chapter 4 include the following:	
4.1 PLAN FOR LAND USE IMPLEMENTATION ACTIONS	
4.1A1 RESIDENTIAL	
4.1A1a Zoning Ordinance	
Review and amend, as necessary, the Zoning Ordinance and Zoning Map to include the following:	
A1a(1)	Continue to review and possibly modify the area and bulk regulations within the residential districts §§265-501.6-8, 502.6-9, 503.6-8 & 504.6-9 to assure that residential areas have sufficient space, privacy, and convenience.
A1a(2)	Continue to maintain or raise residential values by reviewing the residential districts (§265-504.2-5) and remove certain uses permitted to prevent the introduction of incompatible uses within existing and new residential development. Examples include: medical clinics, business office buildings, and neighborhood commercial uses permitted by conditional use within the R-2 District.
A1a(3)	Emphasize the use of the Residential Open Space Option on the Gray property and any other remaining large undeveloped parcels planned for Medium Density, to set aside open space for active and passive recreation and the preservation of sensitive natural features.
A1a(4)	Evaluate and include conservation by design principles within the applicable section or a new section that focus on the preservation of sensitive natural features, thereby creating a balance between development and the environment.
A1a(5)	Include 'placemaking' in the review of plans for future residential development/redevelopment a means to enhance and/or create the Township's identity and culture.
A1a(4)	Augment and/or create new the pipeline setback requirements within a new §265-621 as well as coordinating and updating the easement and utilities requirements within §§265-604 & 605 of the SALDO.
A1a(5)	Add pipeline right-of-way to the items removed or "netted-out" from the Lot Area definition within §265-301 and create a "Tract Area" definition that would remove the same features from a density calculation.
<i>Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, consultant.</i>	
4.1A1b Subdivision Ordinance	
Review and amend, as necessary, the Subdivision and Land Development Ordinance to address the following:	
A1b(1)	Evaluate §260-502.3 Street Widths of the Design Standards for residential development relative to on-street parking.
<i>Participants/Responsible Parties: BOS, PC, Manager, B/ZO, Engineer, Solicitor, consultant.</i>	
4.1A2 COMMERCIAL/INDUSTRIAL	
4.1A2a Zoning Ordinance	
Review and amend, as necessary, the existing Zoning Ordinance and Zoning Map to include the following:	
A2a(1)	Evaluate the Zoning Map and the uses permitted within §§265-505, 506, 507, 508 & 509 to protect future commercial/industrial areas from encroachment by other land uses during the period of time preceding their development.
A2a(2)	Continue to review the commercial/industrial districts (§§265-506, 507, 508 & 509) to provide for a wide range of uses in order to assure a more balanced future economic base.
A2a(3)	Compare existing off-street parking and loading areas at commercial/industrial uses to the requirements within §265-607 Off-street Parking & Loading of the Supplementary Standards for All Districts to evaluate their adequacy for new developments, and amend as necessary. Evaluate the inclusion design flexibility, such as designated areas for future expansion and shared and/or reserved parking to reduce the amount of impervious surface and potential runoff.
A2a(4)	Continue to evaluate existing conditions within commercial/industrial developments relative to separate vehicular and pedestrian traffic and amend §265-607 Off-street Parking & Loading and §265-605 Shopping Centers as necessary.
A2a(5)	Review and amend §265-608 Screening requirements in the Supplementary Standards for All Districts or particular district to minimize any adverse effects of commercial/industrial development.
A2a(6)	Evaluate expanding upon the landscape requirements in §§265-607 & 608 and/or create a new section for landscaping.
A2a(7)	Evaluate the woodland protection standards of §265-607 to include additional standard and coordinate with §260-512 of the SALDO.
A2a(8)	Coordinate any amendments of the open space management plan between §265-617 with §260-409 of the SALDO.
<i>Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, consultant.</i>	
4.1A2b Subdivision Ordinance	
Review and amend, as necessary, the Subdivision and Land Development Ordinance to address the following:	
A2b(1)	Continue to modify §260-510 Erosion & Sediment Controls & Guidelines, Appendix C Construction Improvement Standards

	and the Stormwater Management Ordinance to include best management practices (BMP) and other creative methods of stormwater management as well as those of the MS4 (Municipal Separate Stormwater System) Program, incorporating all new revisions thereto as well as those of Act 167 within residential/commercial/industrial developments, thereby mitigating the potential negative effects that a particular use will have on adjacent properties and the natural environment.
A2b(2)	Evaluate the tree protection and woodland management standards of §260-512 as noted above.
A2b(3)	Coordinate any amendments of the open space management plan between §260-409 with §265-617 of the ZO as noted above.
A2b(4)	Evaluate the need and/or create special sidewalk provisions for Lionville Historic District in §260-505.3.
	<i>Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Engineer, Solicitor, consultant.</i>
4.2 PLAN FOR COMMUNITY FACILITIES & SERVICES IMPLEMENTATION ACTIONS	
4.2A1 ACTIONS	
4.2A1a Subdivision Ordinance	
A1a(1)	Review the Act 167 amendments as incorporate within Chapters 214 Stormwater and 260 Subdivision as necessary.
	<i>Participants/Responsible Parties: BOS, PC, Manager, B/ZO, Engineer, Solicitor.</i>
4.3 PLAN FOR PARKS, RECREATION & OPEN SPACE IMPLEMENTATION ACTIONS	
4.3A1 RECREATION LANDS & FACILITIES	
4.3A1a Planning Coordination	
A1a(1)	Expand the Shared Facilities Agreement with DASD to include the Shamona Creek and Uwchlan Hills Elementary Schools facilities.
A1a(2)	Evaluate a park-school concept at Uwchlan Hills and Shamona Creek Elementary Schools similar to Lionville Park & Middle School. The use of school facilities during non-school hours increases recreational opportunities while reducing the need for separate parklands and recreation facilities. While not the typical park-school concept of developing adjacent park and school sites as a single unit, designed to integrate a range of educational and recreational activities, this opportunity exists on the undeveloped acreage of Uwchlan Hills and Shamona Creek Elementary Schools.
	<i>Participants/Responsible Parties: BOS, P&RB, Manager, Solicitor, consultant, DASD.</i>
A1a(3)	Create areas within existing parks as well as planned parks for “new sports” such as pickle ball and cricket.
A1a(4)	Consider both a follow-up survey focusing on parks and recreation and an update to the Park and Recreation Plan.
	<i>Participants/Responsible Parties: BOS, P&RB, Manager, Solicitor, consultant.</i>
A1a(5)	Pursue an agreement with West Pikeland and Upper Uwchlan Townships for the use of athletic fields.
	<i>Participants/Responsible Parties: BOS, P&RB, Manager, Solicitor, adjacent townships.</i>
A1a(6)	Clean-up/repair stormwater management facilities within Martin Park and any other park, where necessary.
	<i>Participants/Responsible Parties: BOS, P&RB, PW, Manager, Engineer.</i>
A1a(7)	Implement the “senior park” on the Lionville Park campus adjacent to Lionville Middle School as proposed in Chapter 4.
	<i>Participants/Responsible Parties: BOS, P&RB, PW, Manager, Engineer, Solicitor.</i>
4.3A2 WALKWAY & BIKEPATH NETWORK	
4.3A2a Subdivision Ordinance	
Review and amend the Subdivision and Land Development Ordinance to address the following:	
A2a(1)	Create a new §513 Walkways & Bikeways that addresses the minimum width, grade, and materials standards for existing and proposed walkway and bikeway development.
	<i>Participants/Responsible Parties: BOS, PC, P&RB, Manager, B/ZO, Solicitor, Engineer, planing consultant.</i>
4.3A2b Planning Coordination & Plan Review	
A2b(1)	Incorporate the undeveloped tracts south of Turnbury and west of Windham, planned for Medium Density Residential and Commercial, into the Township’s walkway network as the property affords a connection to Windham, Target Park, and the Uwchlan Trail along Dowlin Forge Road, as well as the opportunity for an extension south to potential commercial area(s).
A2b(2)	Include the Rhondda sidewalk/trail network within the overall Township-wide system.
A2b(3)	Complete the Newcomen Road/Timberlake Drive connection of the Uwchlan Trail between Rhondda and Valley Hill Road with a bituminous walkway and/or sidewalk through the development process or ordinance.
A2b(4)	Add signage for the Uwchlan Trail at Dowlin Forge Rd and Fairweather Dr for sidewalk route to Deep Willow Dr and ultimately the Eagleview pedestrian network.
A2b(5)	Evaluate the feasibility of extending sidewalks along Woodland Drive from Wagon Trail Way west to Blue Ribbon Way and possibly to Peck Road.
A2b(6)	Evaluate the feasibility of extending a sidewalk/trail along Worthington Road connecting the Gray property with the

	sidewalk/trail network of Rhondda.
A2b(7)	Provide signage/wayfinding along all Township walkways identifying routes and directions.
	<i>Participants/Responsible Parties: BOS, PC, P&RB, Manager, B/ZO, Solicitor, Engineer, landowner/developer, consultant.</i>
4.3A3 OPEN SPACE	
4.3A3a Zoning Ordinance	
Review and amend the Zoning Ordinance to address the following:	
A3a(1)	Add a requirement for a minimum percent of usable open space within §609 Residential Open Space Option, §613 Planned Single-family Development, and any other applicable section that requires open space.
	<i>Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.</i>
4.3A3b Subdivision Ordinance	
Review and amend the Subdivision & Land Development Ordinance to address the following:	
A3b(1)	Add a 4-Step Plan preparation process within §§401 & 402 Sketch and Preliminary Plans that requires the evaluation and plotting of sensitive environmental features, areas for natural open space, viewsheds, and potential road layout before including lots/buildings.
	<i>Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.</i>
4.3A3c Planning Coordination & Plan Review	
A3c(1)	Incorporate the underdeveloped tracts adjacent to Windham and Turnbury, planned for Medium Density Residential and Commercial, into the Township open space network as the open space created protects wetland areas and provides for a connection to the existing Windham/Turnbury open space.
A3c(2)	Continue to acquire through the open space within the development process, conservation easement, or actual purchase, a buffer along the Shamona Creek.
	<i>Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, B/ZO, Solicitor, Engineer, landowner/developer, conservation organization, consultant.</i>
A3c(3)	Require the creation of natural play space/natural oriented areas within new open space and where possible, existing open space.
	<i>Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.</i>
4.4 PLAN FOR TRAFFIC & CIRCULATION IMPLEMENTATION ACTIONS	
4.4A.1 Road Widening Projects	
A1a	Continue to widen PA Route 113 to a 5-lane cross section between Crossroads Square & Eagleview Boulevard/Crump Road for left turn accessibility and safety. Consider trees planted median and along both sides of Route 113 as traffic calming.
A1b	Widen Devon Drive to a 3-lane cross section with a landscaped median between PA Route 113 and Whitford Road. This widening will include median and channelization in the form of left turn lanes at the high school, LYA fields, Lionville Park, the YMCA, and developments as appropriate. Consider roundabouts and trees planted within any median and along both sides of Devon Drive as traffic calming where appropriate.
	<i>Participants/Responsible Parties: BOS, Manager, traffic consultant, Solicitor, Engineer, PADOT, CCPC, DVRPC.</i>
4.4A.2 New Road/Bridge Projects	
A2a	Pennsylvania Turnpike “slip ramps.” The Turnpike Commission would construct an off-ramp from the westbound lanes to Lionville Station Road as the responsibility of the developer of the current DASD property. These ramps will be designed to serve only motorists that purchase their tolls in advance through the “EZ-Pass” Program. Motorists with valid EZ-Pass transponders will be able to enter and exit the Turnpike without stopping to receive a ticket or pay a toll. The appropriate toll will be deducted from each user’s account.
A2b	Construct a collector road between East Township Line Road & Lionville Station Road, essentially an extension of Haywood Road. This roadway would be part of the development of the DASD tract. Lionville Station Road would also be improved between the “Haywood Road Extension” and PA Route 113.
	<i>Participants/Responsible Parties: BOS, Manager, traffic consultant, Solicitor, Engineer, PA Turnpike Commission, PADOT, CCPC, DVRPC.</i>
4.4A.3 Intersection Improvement Projects	
A3a	PA Route 100 and Sheree Boulevard. A jughandle would be provided for northbound PA Route 100 left turns to Sheree Boulevard.
A3b	New traffic signal installation at Ship Road and Newcomen Road.
A3c	New traffic signal installation at Whitford Road and Devon Drive.
A3d	Dowlin Forge Road and Deep Willow Drive. The curb radii are to be shortened for better sight distance at the intersection.

A3e	Work with East Caln Township to widen the intersection of Route 113 and Bell Tavern/Garris Roads (not in Uwchlan Township; not shown on map).
	<i>Participants/Responsible Parties: BOS, PC, B/ZO, Solicitor, Engineer, consultant.</i>
4.4A.4 Bicycle & Non-Vehicular Recommendations	
A4a	Adopt applicable Active Transportation definitions to both §260-204 SALDO and §265-301 ZO such as: Shared Roadway, Sharrow, Signed Bike Routes, Bicycle Boulevard, Bike Lanes, Cycle Track, Sidewalk, Walkway, Crosswalk, Multiuse Trail, Sidepath, Use-restricted Trail, and Bicycle Parking.
A4b	Amend §260-602.3 SALDO the minimum width requirements for sidewalks from four to five feet.
A4c	Develop minimum trail standards (type, width, easements, surface treatments, etc.) within a new §260-513 SALDO.
A4d	Include dimensional standards for on-road bike facilities as well as standard symbols and signage (i.e. sharrows, share the road signage, etc.) within the applicable ordinance.
A4e	Require adequate bicycle parking near the entrance of proposed buildings in mixed use, commercial, medium-high density residential, and institutional zones within §265-607 ZO.
	<i>Participants/Responsible Parties: BOS, Manager, Solicitor, Engineer, CCPC, consultant.</i>
4.5 PLAN FOR HOUSING IMPLEMENTATION ACTIONS	
4.5A.1 ACTIONS	
4.5A.1.a Zoning Ordinance	
Review and amend, as necessary, the Zoning Ordinance and Zoning Map to include the following:	
A1a(1)	Continue to review and modify the area and bulk regulations within the residential districts §§265-501.6-8, 502.6-8, 503.6-8, and 504.6-8 to assure that residential areas have sufficient space, privacy, and convenience.
A1a(2)	Advance the concept of low income housing versus work-force housing in order to recognize and address a growing need.
A1a(3)	Continue to maintain or raise residential values by reviewing the residential districts §§265-501.2-5, §502.2-5, §503.2-5, and §504.2-5 and remove certain uses permitted to prevent the introduction of incompatible uses within existing and new residential development.
	<i>Participants/Responsible Parties: BOS, PC, B/ZO, Solicitor, Engineer, consultant.</i>
4.6 PLAN FOR NATURAL RESOURCES IMPLEMENTATION ACTIONS	
4.6A.1 Overall Natural Resources	
4.6A1.a Planning Coordination	
A1a(1)	Support comprehensive protection and restoration of the Township's ecosystems of including woodlands, wetlands, surface waters, riparian corridors, groundwater, floodplains, soil health, steep slopes, aquatic and wildlife habitats, and natural heritage areas.
A1a(2)	Develop an environmental resources inventory as a baseline, including flood-prone areas, swamps and other unique natural areas, for the purpose of obtaining information on the proper use, protection, and management of those areas.
	<i>Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.</i>
A1a(3)	Support regional natural resource protection efforts and promote a resource-based planning approach.
	<i>Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant, CCPC, PADEP.</i>
A1a(4)	Review and comment on environmental issues associated with subdivision and land development applications and submissions, and proposed ordinance amendments.
	<i>Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.</i>
A1a(5)	Develop environmental education awareness programs for Township residents.
A1a(6)	Work with schools and local environmental groups to enhance and promote community environmental education programs.
A1a(7)	Investigate and make recommendations regarding grants available to the Township related to environmental issues and education.
	<i>Participants/Responsible Parties: BOS, EAC, Manager, planning consultant.</i>
4.6A.2 Steep Slope	
4.6A.2.a Zoning Ordinance	
A2a(1)	Evaluate the impact and/or implementation of the steep slope regulations of §265-618.
	<i>Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.</i>
4.6A.3 Habitat Areas and Pennsylvania Natural Diversity Index (PNDI) Sites	
4.6A.3.a Zoning Ordinance	
A3a(1)	Evaluate current standards and monitor State and Federal action regarding new regulations.
	<i>Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.</i>

4.6A.4 Woodlands	
4.6A.4.a Subdivision Ordinance	
Review and amend, as necessary, the Subdivision and Land Development Ordinance to address the following:	
A4a(1)	Promote the planting of native trees and plants within open spaces and brownfield sites.
A4a(2)	Cross-reference the native plant list between the SALDO and ZO.
<i>Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Engineer, planning consultant.</i>	
A4a(3)	Protect woodlands from invasive pests and perform periodic inspection and maintenance to remove invasive plant species.
A4a(4)	Evaluate the need to create a tree replacement program in §260-512 Tree Protection, or reference and modify the standards in §265-619.1.a(2) of the ZO to address such.
<i>Participants/Responsible Parties: BOS, EAC, Manager, B/ZO, Engineer, planning consultant.</i>	
4.6A.5 Floodplain, Wetland, Riparian Buffer, Hydric Soils & Headwaters	
4.6A.5.a Planning Coordination	
A5a(1)	Where possible, add increased riparian buffer setbacks to maintain the quality of unimpaired streams and improve the water quality of impaired streams.
A5a(2)	Restore impaired streams and protect unimpaired streams from stormwater pollutants by the use of best management practices.
A5a(3)	Consider natural/unpaved walkways adjacent to waterways in an effort to reduce erosion and stream degradation, thereby promoting environmental/historical education furthering the goals of community education by way of signage and self-guided tours.
A5a(4)	Promote groundwater recharge, the reduction of stormwater runoff and pollution.
A5a(5)	Improve the resiliency of flood prone areas and perform flood mitigation.
A5a(6)	Work with existing Township watershed associations and other interested parties in preparing a Township-wide watershed management plan.
A5a(7)	Consider strengthening the definition of Riparian Setback and Buffer Area definition by creating a new §265-621 Riparian Buffers within the ZO.
<i>Participants/Responsible Parties: BOS, EAC, Manager, B/ZO, Solicitor, Engineer, consultant, watershed/conservation organization(s).</i>	
4.7 PLAN FOR HISTORIC RESOURCES IMPLEMENTATION ACTIONS	
4.7A.1 ACTIONS	
4.7A.1.a Planning Coordination	
A1a(1)	Add a lower threshold, as applicable, for requiring archaeological research and other resource identification.
<i>Participants/Responsible Parties: BOS, PC, HC, Manager, B/ZO, Solicitor, planning consultant.</i>	
4.7A.1.b Zoning Ordinance	
A1b(1)	Make recommendations for amendments as needed.
<i>Participants/Responsible Parties: BOS, PC, HC, Manager, B/ZO, Solicitor, planning consultant.</i>	
4.7A.1.c Subdivision Ordinance	
A1c(1)	Make recommendations for amendments as needed.
A1c(2)	Add the Historical Commission to the review of land development plans, as needed.
<i>Participants/Responsible Parties: BOS, PC, HC, Manager, B/ZO, Solicitor, planning consultant.</i>	
4.8 PLAN FOR ENERGY CONSERVATION, WASTE REDUCTION, REUSE & RECYCLING IMPLEMENTATION ACTIONS	
4.8A.1 ACTIONS	
4.8A.1.a Energy Conservation Activities	
A1a(1)	Complete energy audits of Township buildings and facilities for baseline numbers.
A1a(2)	Reduce energy consumption through the purchase of supplies and equipment, or when upgrading physical plant elements such as lighting, cooling or heating systems.
A1a(3)	Establish a minimum average fuel efficiency standard for the procurement of Township vehicles.
A1a(4)	Inform residents about strategies for conserving energy and support education efforts that encourage energy and resource saving practices at home, at school, and at the work place.
A1a(5)	Continue to support, expand, and improve recycling programs in all sectors.
A1a(6)	Support programs that offer consumers opportunities to re-use materials which would otherwise be disposed of, such as

	permitting curbside pickup for reuse, or “free-cycling”.
A1a(7)	Support incentives for additional electric charging stations and similar new energy conservation technologies.
	<i>Participants/Responsible Parties: BOS, PC, EAC, Public Works, Manager, Township Staff, Township newsletter, consultant.</i>
B. LONG-RANGE ACTIONS	
Recommended long range implementation actions from the individual Plan Elements of Chapter 4 include the following:	
4.1 PLAN FOR LAND USE IMPLEMENTATION ACTIONS	
4.1B.1 New Ordinances/Documents	
4.1B.1a Special Plan/Studies	
B1a(1)	Prepare corridor studies for PA Route 100 and PA Route 113 that propose uses within undeveloped properties and evaluate the redevelopment of specific properties that includes ordinances language to promote the recommendations of the study.
	<i>Participants/Responsible Parties: BOS, PC, Manager, B/ZO, Engineer, Solicitor, traffic consultant, planning consultant.</i>
B1a(2)	Evaluate transitioning Pickering Industrial Park into an “innovation center”.
B1a(3)	Create a “Town Center District” in and around Lionville that involves compatible uses and establishes safe, convenient vehicular and pedestrian circulation patterns.
	<i>Participants/Responsible Parties: BOS, PC, Manager, B/ZO, Solicitor, consultant.</i>
B1a(4)	Create a large “community park” on currently undeveloped or under-developed property within the Township (more detail in Parks, Recreation & Open Space Plan Element).
	<i>Participants/Responsible Parties: BOS, PC, P&RB, Manager, Solicitor, Engineer, landowner/developer, consultant.</i>
B1a(5)	Consider a requirement for open space within new non-residential development (§§265-506, 507, 508 & 509) or a potential fee in lieu of.
	<i>Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, Solicitor, Engineer, landowner/developer, consultant.</i>
4.2 PLAN FOR COMMUNITY FACILITIES & SERVICES IMPLEMENTATION ACTIONS	
4.2B.1 ACTIONS	
4.2B.1a Planning Coordination & Plan Review	
B1a(1)	Review the potential extension of public sewer and water to that area of the Township north of the PA Turnpike currently unserved.
	<i>Participants/Responsible Parties: BOS, PC, Manager, Solicitor, Engineer, DARA, UMTA, CCPC, CCHD, PADEP, AquaPA.</i>
B1a(2)	When available, consider the use of alternative wastewater treatment and disposal technologies, such as the retrofitting of existing wastewater treatment facilities in order to improve energy efficiency.
	<i>Participants/Responsible Parties: BOS, PC, Manager, Solicitor, Engineer, DARA, UMTA, CCPC, CCHD, PADEP.</i>
4.3 PLAN FOR PARKS, RECREATION & OPEN SPACE IMPLEMENTATION ACTIONS	
4.3B.1 RECREATION LANDS & FACILITIES	
4.3B.1a Planning Coordination & Plan Review	
B1a(1)	Use the Residential Open Space Option of the R-1 District to obtain suitable neighborhood parkland within the open space of 71-acre Gray property, planned for Medium Density Residential, thereby providing needed recreation area for an underserved portion of the Township.
B1a(2)	Development of the 240-acre DASD tract, planned for Commercial/Industrial, should include a community park that includes both active and passive recreation adjacent to Lionville Station Road easily accessible for those areas of the Township north of the PA Turnpike.
B1a(3)	Development of the 27-acre Nelson tract south of the PA Turnpike, planned for Commercial/Industrial, should include parkland suitable for recreation on a portion of the property.
B1a(4)	Consider lighted active recreation facilities in conjunction with the development of the 170-acre Nelson properties (Happy Days Farm) and the 240-acre DASD property, planned for Commercial/Industrial, due to their location between the two major roads within the Township as well as the nonresidential zoning district, both on and adjacent to the properties.
B1a(5)	Develop park master plans for the applicable lands on DASD, Nelson & Gray tracts that include recreation facilities and pedestrian connections.
B1a(6)	Provide a balance of active and passive recreation within new parks and add amenities/facilities such as band shell/amphitheater for concerts, fountains, and benches to existing parks where space permits and planned within new parks.
B1a(7)	Continue to augment existing parks by acquiring adjacent parcels, if and when they become available.
B1a(8)	Evaluate and consider the acquisition of the Pennypacker Country Club, if the property becomes available.
B1a(9)	Continue to maintain an inventory of parks and recreational facilities and update park type and facilities standards as part of the 10-year update to the Comprehensive Plan and/or Open Space and Recreation Plan.
B1a(10)	Continue to provide for a wide variety of recreational facilities and activities as well as identify needs to serve all age groups and abilities of Township residents as part of the 10-year update to the Comprehensive Plan and/or Open Space and

	Recreation Plan.
	<i>Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, B/ZO, Solicitor, Engineer, landowner/developer, consultant.</i>
4.3B.2 WALKWAY NETWORK	
4.3B.2a Planning Coordination & Plan Review	
B2a(1)	Connect the eastern and western Township trail networks by providing safe, attractive crossings at: Route 100 at Sheree Boulevard; Route 100 at Ship Road; Route 100 at Gordon Drive; Route 113 at Crump Rd/Eagleview Boulevard; and Route 113 at Devon Drive. These could be in the form of a bridge as well as a protected crosswalk. (See historic resources strategies)
B2a(2)	Require the development of the 71-acre Gray property to provide sidewalks along all roads and a bituminous walkway within the open space connecting Century Oaks, Woodlark, and Rhondda.
B2a(3)	Require the development of the 240-acre DASD tract to provide bituminous trails/walkways with the community park sidewalks along all roads, including the extension of Haywood Drive to Lionville Station Road.
B2a(4)	Construct a bridge over the Pennsylvania Turnpike at either Eagleview Boulevard or Gordon Drive as part of the DASD property land development.
B2a(5)	Require the development of the 170-acre Nelson properties to provide sidewalks along all roads to connect with the Sheree Boulevard section of the Uwchlan Trail.
B2a(6)	Extend the bituminous walkway and/or sidewalk along Autumn Drive, into Century Oaks, into the Gray property (once developed) connecting to the sidewalk network of Woodlark and ultimately to the Rhondda trail network.
B2a(7)	Extend the sidewalk from Shamona Creek Elementary/Marsh Creek 6th Grade Center east along Township Line/Milford Roads to the Township trail at Pennypacker Road.
B2a(8)	Evaluate the feasibility of extending a sidewalk/trail along Route 113 connecting Eagleview Boulevard with Devon Drive.
B2a(9)	Evaluate the feasibility of creating a continuous sidewalk on at least one side of the road within Historic Lionville Village.
B2a(10)	Continue to evaluate walkway linkages and crosswalks throughout the Township as part of the 10-year update to the Comprehensive Plan and/or Open Space and Recreation Plan.
B2a(11)	Where possible, widen the existing Uwchlan Trail to State standards to allow bike traffic; bikeway safety pavement markings where portions of the trail must share the road with traffic; and improve visibility and safety of walkway and bike path crossings by adding colored pavement markings or new signage.
B2a(12)	Consider adding “historic trails” to applicable parks where appropriate.
	<i>Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, B/ZO, Solicitor, Engineer, landowner/developer, consultant.</i>
4.3B.3 OPEN SPACE	
4.3B.3a Planning Coordination & Plan Review	
B3a(1)	Require the development of the 71-acre Gray property to use the Residential Open Space Option within the R-1 District thereby creating open space to protect the floodplain and wetland areas.
B3a(2)	Require an open space network within the development of the 240-acre DASD tract through a combination of the net-out and riparian buffer provisions of the ZO and/or conservation easements to preserve sensitive natural features such as floodplain, wetland, and steep slope.
B3a(3)	As an alternative #2 above, consider targeting all or a portion of the DASD tract, as one of the larger undeveloped parcels in the Township, for the acquisition as open space and/or preserved land for agricultural use. <i>Landscapes3</i> supports the preservation and promotion of agricultural areas through its many goals and as one of the last remaining parcels of such, this acquisition is encouraged.
B3a(4)	Require an open space network within the development of the 170-acre Nelson properties through a combination of the net-out and riparian buffer provisions and/or conservation easements to preserve sensitive natural features such as floodplain, wetland, and steep slope.
B3a(5)	Require open space within the development of the 27-acre Nelson property south of the PA Turnpike through a combination of the net-out and riparian buffer provisions and/or conservation easements to preserve the floodplain and wetland areas.
B3a(6)	Encourage the ‘park-school’ concept of shared recreational spaces to blend with the goal of providing ‘natural play spaces’ that is currently suggested for our open spaces.
B3a(7)	Insure historic resources are placed within open space of undeveloped properties to maximize preservation. (Also, see historic resources strategies.)
B3a(8)	Consider adding a tree preservation ordinance for “heritage trees” to the applicable ordinance.
	<i>Participants/Responsible Parties: BOS, PC, P&RB, EAC, HC, Manager, B/ZO, Solicitor, Engineer, landowner/developer, consultant</i>

4.4 PLAN FOR TRAFFIC & CIRCULATION IMPLEMENTATION ACTIONS	
4.4B.1 Road Widening Projects	
B1a	Widen PA Route 113 to a six-lane section across PA Route 100. This intersection was recently improved, but problems can again surface with all anticipated development. Three through lanes would be needed on eastbound and on westbound PA Route 113 should the additional development occur. Signing will be considered, directing vehicles westbound on PA Route 113 and turning right to northbound PA Route 100 to travel via Marsh Creek Drive.
B1b	Improve Whitford Road to provide drainage and shoulder stabilization within the Township limits.
	<i>Participants/Responsible Parties: BOS, Manager, traffic consultant, Solicitor, Engineer, PADOT, CCPC, DVRPC.</i>
4.4B.2 New Road/Bridge Projects	
B2a	Construct a bridge over the Pennsylvania Turnpike at either Eagleview Boulevard or Gordon Drive as part of the DASD property land development.
	<i>Participants/Responsible Parties: BOS, Manager, traffic consultant, Solicitor, Engineer, PA Turnpike Commission, PADOT, CCPC, DVRPC.</i>
4.4B.3 Other Projects	
B3a	Improve the shoulder along PA Route 113 for emergency response and breakdowns. Shoulders are proposed along PA Route 113 between Peck Road and Devon Drive. This will facilitate emergency service access when traffic is heavy. Other benefits are that it will allow broken-down vehicles to get out of the traffic stream, will enhance bicycle transportation, and will facilitate right turns.
	<i>Participants/Responsible Parties: BOS, Manager, traffic consultant, Solicitor, Engineer, PADOT, CCPC, DVRPC.</i>
B3b	Consider development and adoption of a Pedestrian and Bicycle Mobility Plan. A formal Pedestrian and Bicycle Mobility Plan can further act to provide focus for Official Map updates to amend potential locations of active transportation facilities as well as to take a holistic view of the Township as it relates to pedestrian/bicycle mobility.
	<i>Participants/Responsible Parties: BOS, Manager, Solicitor, Engineer, PADOT, CCPC, DVRPC, consultant.</i>
4.5 PLAN FOR HOUSING IMPLEMENTATION ACTIONS	
4.5B.1 ACTIONS	
4.5B1.a Planning Coordination	
B1a(1)	Monitor changes in state and national building codes and incorporate such within the Township Building/Housing Code for continued enforcement.
	<i>Participants/Responsible Parties: BOS, Manager, B/ZO, Solicitor, Engineer.</i>
4.6 PLAN FOR NATURAL RESOURCES IMPLEMENTATION ACTIONS	
4.6B.1 Land Preservation Methods	
4.6B.1.a Planning Coordination	
B1a(1)	The Township can acquire tracts of land, or portions of tracts, in a variety of ways, including gifts, open space easements, outright purchase, condemnation, and by the use of ordinances such as the mandatory dedication of open space. The Township's purchase and preservation efforts along the East Branch of the Brandywine are examples of such land acquisition.
	<i>Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, Solicitor, landowner, conservation organization, consultant.</i>
B1a(2)	<p>In addition to regulatory techniques, there are other preservation tools where the principal incentives are federal income, gift, and estate tax reductions. These techniques require negotiation and rely heavily on the willingness and desire of a landowner to preserve open space resources. Though the tax incentives associated with these tools are likely to generate larger and more immediate financial benefits for the taxpayer, they are also irreversible.</p> <p>All such preservation tools involve a taxpayer's gift of property or property rights to conservation organizations and/or municipal governments. The types of land donations include: 1) outright gifts of land; 2) gifts of land with retained life estate; 3) bargain sales of land; 4) gifts by codicil; and 5) conservation easement donations. Several private conservation organizations actively promote these preservation tools in Chester County; in Uwchlan, notably, the Natural Lands Trust and Brandywine Conservancy.</p> <p>Conservation easements provide a way in which a property owner can participate in the long-term protection of valuable open space resources on lands intended to remain in private hands. It is a legal agreement between the property owner and an eligible recipient (usually a conservation or government organization), under which the landowner (donor) establishes restrictions (usually in perpetuity) over the use of the property. The recipient (donee) agrees to monitor the eased areas to assure that easement terms are upheld. Because the public benefits from the permanent preservation of important scenic, historic, and natural areas, the donor may qualify for certain federal tax deductions on the basis that the donated easement is</p>

	a charitable contribution. Estate and gift tax deductions also can occur from an easement donation, as a result of the reduction in valuation for those tax purposes. Since the landowner continues to own and manage the land, he also continues to pay appropriate taxes (though these may be reduced where use-value assessments exist). The degree of protection varies with each easement and site, as do the conditions set between the donor and donee. Generally, easements are designed to protect identified open space resources, preclude or specifically limit development, and maximize resource protection objectives of both individual landowners and Township. Preservation of the Matthews Farm is an example of conservation easement use in Uwchlan.
	<i>Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, Solicitor, Engineer, landowner, conservation organization, consultant.</i>
4.7 PLAN FOR HISTORIC RESOURCES IMPLEMENTATION ACTIONS	
4.7B.1 ACTIONS	
4.7B.1.a Planning Coordination	
B1a(1)	Consider a historic district for Dowlin Forge that would encompass the complex of buildings and ruins that evolved around the iron forge and continue the restoration project.
	<i>Participants/Responsible Parties: BOS, PC, HC, Manager, Building/ZO, Solicitor, planning consultant.</i>
B1a(2)	Consider National Register listing for additional historic resources in Uwchlan Township. The structures, sites, and districts of historic significance and integrity identified in the UTHC’s inventory may be eligible for listing on the National Register of Historic Places. This “listing” process involves the submission of a Pennsylvania Historic Resource Survey form to the Pennsylvania Historic Museum Commission (PHMC) in which the property is described both architecturally and historically, and photographic evidence supplied of its structural condition. The PHMC staff makes the initial determination of eligibility and gives permission to the applicant to proceed with the preparation of a National Register of Historic Places Nomination to be approved at the federal level through the National Bank Service.
	<i>Participants/Responsible Parties: BOS, HC, Manager, B/ZO, Solicitor, planning consultant.</i>
B1a(3)	Using the UTHC’s inventory, require historic resources to be placed and preserved within the open space design of undeveloped properties as each property is proposed for development.
	<i>Participants/Responsible Parties: BOS, PC, HC, EAC, Manager, B/ZO, Solicitor, planning consultant.</i>
B1a(4)	Create an interactive webpage to be modified and/or updated by the UTHC and/or Township Staff that allows a viewer to learn about each of the historic sites listed.
	<i>Participants/Responsible Parties: BOS, HC, Manager, Township Staff.</i>
B1a(5)	Encourage historical awareness community involvement through: open house schedule and other events; traditional contact methods; online information; and continued research of historic resources.
	<i>Participants/Responsible Parties: BOS, HC, Manager, Township Staff.</i>
B1a(6)	Maintain artifacts and documents through continued conservation methods.
B1a(7)	Continue historic resource condition reports.
	<i>Participants/Responsible Parties: HC, Manager, Township Staff.</i>
4.8 PLAN FOR ENERGY CONSERVATION, WASTE REDUCTION, REUSE & RECYCLING IMPLEMENTATION ACTIONS	
4.8B.1 ACTIONS	
4.8B.1.a Energy Conservation Activities	
B1a(1)	Evaluate the creation of ordinances that promote and facilitate the use and generation of alternative energy in building construction and rehabilitation.
B1a(2)	Evaluate the use of incentives for the construction and rehabilitation of buildings that use a green building component as well as traditional energy conservation practices, such as those which will provide natural light and fresh air.
B1a(3)	Support solar, windmill, innovative stormwater management technics initiatives for energy conservation.
	<i>Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.</i>
C. ONGOING ACTIONS	
Recommended ongoing implementation actions from the individual Plan Elements of Chapter 4 include the following:	
4.1 PLAN FOR LAND USE IMPLEMENTATION ACTIONS	
4.1A.1 Planning Coordination & Plan Review	
A1a	Continue to regulate and uphold ordinances, through legal action if necessary, to ensure that new development occurs in a manner that does not adversely impact existing development or place an undue burden on the Township’s infrastructure.
A1b	Continue to plan the locations of commercial areas so that they are convenient to residential areas and provide sites that have easy access for customers, employees, and suppliers.
A1c	Evaluate the Zoning Map relative to locating of commercial development to sites near major traffic thoroughfares while at the

	same time separating regional commercial traffic from local traffic.
A1d	Continue to create and enforce design standards that will result in commercial developments that are attractively designed, landscaped, and buffered from roadways and residential areas.
	<i>Participants/Responsible Parties: BOS, PC, Manager, B/ZO, Engineer, Solicitor, consultant.</i>
4.2 PLAN FOR COMMUNITY & SERVICES IMPLEMENTATION ACTIONS	
4.2C.1 ACTIONS	
4.2C.1a Planning Coordination	
C1a(1)	Continue to provide the variety of Township administrative services and facilities, such as building and fire code inspections, newsletter, website, staffing, and meeting facilities.
	<i>Participants/Responsible Parties: BOS, Manager, B/ZO, Staff.</i>
C1a(2)	Continue to provide adequate Police Department staffing and coverage to serve the residents and business of the Township.
	<i>Participants/Responsible Parties: BOS, Manager, Police Chief.</i>
C1a(3)	Continue to financially support the Lionville Fire Company and Uwchlan Ambulance Corps, or other companies providing services, to ensure adequate emergency services for the Township.
	<i>Participants/Responsible Parties: BOS, Manager, Lionville Fire Co, Uwchlan Ambulance Co.</i>
C1a(4)	Continue to work with DASD regarding their facilities within the Township and monitor their activity with the property on Lionville Station Road.
	<i>Participants/Responsible Parties: BOS, Manager, Solicitor, DASD.</i>
C1a(5)	Review and update, as necessary, the Township Act 537 Sewage Facilities Plan.
	<i>Participants/Responsible Parties: BOS, PC, Manager, Solicitor, Engineer, DARA, UTMA, CCPC, CCHD, PADEP.</i>
C1a(6)	Continue to work closely with DARA and UTMA to insure that adequate sewer service is available to existing and future Township residents and businesses.
	<i>Participants/Responsible Parties: BOS, Manager, Engineer, DARA, UTMA, CCPC, CCHD, PADEP.</i>
C1a(7)	The Township must continue to work closely with Aqua PA to insure that adequate water service is available to existing and future Township residents and businesses.
	<i>Participants/Responsible Parties: BOS, Manager, Engineer, AquaPA.</i>
4.3 PLAN FOR PARKS, RECREATION & OPEN SPACE IMPLEMENTATION ACTIONS	
4.3C.1a Planning Coordination & Plan Review	
C1a(1)	Continue to acquire those “gaps” within the walkway network previously identified.
C1a(2)	Continue to provide a buffer along the Shamona Creek through open space within the development process, conservation easement, or actual purchase.
	<i>Participants/Responsible Parties: BOS, PC, P&RB, EAC, Manager, B/ZO, Solicitor, Engineer, landowner/developer, conservation organization, consultant.</i>
4.3C.1b Programs, Personnel & Maintenance	
C1b(1)	Continue to support the Parks & Recreation Board efforts to maintain an inventory of existing recreational programs available to Township residents by providers such as LYA, DARC, and the YMCA.
C1b(2)	Continue to fund the existing recreational programs, such as DARC, available to Township residents as recommended by the Parks & Recreation Board.
C1b(3)	Continue to cooperate with LYA on the scheduling of field use and maintenance.
C1b(4)	Continue the Township Staff and Parks & Recreation Board program for the operation and maintenance of parks and recreational areas and facilities.
	<i>Participants/Responsible Parties: BOS, P&RB, Manager, Solicitor, LYA, DARC, YMCA.</i>
4.4 PLAN FOR TRAFFIC & CIRCULATION IMPLEMENTATION ACTIONS	
4.4C.1 Mass Transit & Alternative Forms of Transportation	
C1a	Evaluate locations and install park and ride facilities on public lands where possible.
C1b	Explore discussions with SEPTA to establish shuttle service from designated spots within the Township to Exton and Whitford Stations in neighboring West Whiteland.
C1c	Explore discussions with SEPTA to expand bus service to additional employment centers in the Township.
C1d	Accommodate the use of alternative fuel powered vehicles, the establishment of stations that distribute alternative fuels, and the retrofitting of existing buildings and parking facilities to provide for new fueling technologies, such as vehicle plug stations.
	<i>Participants/Responsible Parties: BOS, Manager, traffic consultant, Solicitor, Engineer, SEPTA, PADOT, CCPC, DVRPC.</i>

4.5 PLAN FOR HOUSING IMPLEMENTATION ACTIONS	
4.5C.1 ACTIONS	
4.5C.1.a Planning Coordination	
C1a(1)	Continue to provide a range of dwelling types and densities throughout the residential districts.
C1a(2)	Continue to enforce the Township Building/Housing Code.
C1a(3)	Amend the Plan Update to include the applicable 2020 Census data for population and housing when it becomes available.
	<i>Participants/Responsible Parties: BOS, PC, Manager, B/ZO, Solicitor, Engineer, consultant.</i>
4.6 PLAN FOR NATURAL RESOURCES IMPLEMENTATION ACTIONS	
4.6C.1 ACTIONS	
4.6C.1.a Planning Coordination	
C1a(1)	Currently the Residential Open Space Option, Planned Single Family Development, and Planned Commercial Industrial District regulations of the Zoning Ordinance, when utilized, have preserved floodplain, wetlands, and generally hydric soils. The Township policy continues to be the inclusion of all environmentally sensitive areas within the open space of developments.
	<i>Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Solicitor, Engineer, planning consultant.</i>
C1a(2)	Condemnation is essentially the Township exercising its right of eminent domain, which is the authority granted to a government to take, or to authorize the taking of, private property for public purposes. There must be just compensation to the property owner for any such action, according to principles of fair market value. One form of condemnation is through the use of an Official Map which the Township is empowered to enact by Article 4 of the Municipalities Planning Code. The Township adopted its Official Map in October 2009, which was revised in_. An Official Map identifies the exact location of existing and proposed public streets and grounds, of which land for parks as well as open space could be designated. The key action of the Township involves the initiation of condemnation or purchase of land designated as public within one year of a landowner's application for subdivision or land development.
	<i>Participants/Responsible Parties: BOS, PC, Manager, Solicitor, Engineer.</i>
C1a(3)	The mandatory dedication of open space or a fee-in-lieu of land generates either open space within developments or provides a fee to use in the purchase of land. The Policy Statement for Contributions to Township Funds does require a fee for park development. The Municipalities Planning Code provisions requires formal adoption of a recreation plan as a prerequisite to implementation of mandatory dedication provisions, which the Township enacted in 1992, amended in 2000, further amended with the 2010 Plan Update, and now amended again with this Update.
	<i>Participants/Responsible Parties: BOS, PC, P&RB, Manager, Solicitor.</i>
C1a(4)	Consider designating, acquiring or creating space within the Township to create a public environmental education area that incorporates natural play spaces, environmental and historical spaces to execute community education goals, and promotes a 'sense of community and destination' within the township.
	<i>Participants/Responsible Parties: EAC, P&RB, Manager.</i>
4.7 PLAN FOR HISTORIC RESOURCES IMPLEMENTATION ACTIONS	
4.7C.1 ACTIONS	
4.7C.1.a Planning Coordination	
C1a(1)	Continue the maintenance of the Historic Resources Inventory data base.
C1a(2)	Updates of older historic resources.
C1a(3)	Review of historic resource alteration applications whether individual or part of a land development application.
	<i>Participants/Responsible Parties: BOS, HC, Manager, B/ZO, Solicitor, planning consultant.</i>
4.8 PLAN FOR ENERGY CONSERVATION, WASTE REDUCTION, REUSE & RECYCLING IMPLEMENTATION ACTIONS	
4.8C.1 ACTIONS	
4.8C.1.a Energy Conservation Activities	
C1a(1)	Promote energy efficiency standards, such as Leadership in Energy and Environmental Design (LEED) and Energy Star certification for the development or redevelopment of buildings, properties, and neighborhoods.
C1a(2)	Support programs that allow residents to improve energy efficiency in their homes through weatherization, efficient climate control, and the conservation of hot water.
C1a(3)	Promote energy efficiency standards, such as LEED and Energy Star certification for the installation of alternative energy generation systems in commercial and industrial operations.
C1a(4)	Support construction/development projects that implement energy conservation, including demonstration projects and programs.
	<i>Participants/Responsible Parties: BOS, PC, EAC, Manager, B/ZO, Engineer, consultant.</i>

4.8C.1.b Waste Reduction Activities	
C1b(1)	Encourage the reduction of single-plastics usage.
C1b(2)	Organize and establish Township-wide pickups for waste streams that can be removed from municipal trash (old paints, electronics, plastics and cardboards not picked up, clothing and household donations)
C1b(3)	Advocate education on composting and reuse of items.
C1b(4)	Consider some form of incentives to use reuse bags when shopping.
C1b(5)	Encourage donation of clothing and household item collection versus discarding in trash by providing centralized drop-off spots.
<i>Participants/Responsible Parties: BOS, EAC, Public Works, Manager, Township Staff, Township newsletter, consultant.</i>	
4.8C.1.c Reuse and Recycling Activities	
C1c(1)	Encourage composting biodegradable/recyclable waste materials.
C1c(2)	Providing reuse materials to Township residents.
C1c(3)	Continuing to provide areas for recycling drop-off/pickup for Township residents and businesses.
<i>Participants/Responsible Parties: BOS, EAC, Public Works, Manager, Township Staff, Township newsletter, consultant.</i>	
