



View of Sunnybrook development in the Cold Spring area of Worcester

Photo: Susan Caughlan

CHAPTER 7

EVALUATION OF GROWTH

An evaluation of projected community growth is an important component in assessing the need for open space preservation and the methodology of accomplishing this preservation. Worcester Township has traditionally been a rural township and is committed to preserving its rural heritage in the face of increasing suburbanization. In an effort to plan for the future, Worcester adopted a Comprehensive Plan in 1995. The Township is in the process of updating this plan. The 1995 plan delineates future growth areas as well as areas to be preserved for agriculture and open space. As part of the Compre-

hensive Plan Update, a buildout analysis was performed to show the growth that would take place if every parcel in the township were fully developed.

2002 BUILDOUT ANALYSIS

The 1995 Comprehensive Plan envisioned 1,800 new dwelling units within the growth areas shown in Figure 7 - 1 to house the growing population to some point between the years 2015 and 2020. By 2002, almost 1,100 housing units had been built in these areas. However, data in the Township's Land Use Assumptions Report of 2002 (LUAR) showed that the remaining land in the growth areas could accommodate only 289 more dwelling units under the zoning in place at the time. This is reflected in the fact that there is increased pressure to build in parts of the township other than the growth areas.

CURRENT CAPACITY LIMITATIONS OF THE GROWTH AREAS FOR RESIDENTIAL GROWTH

The buildout analysis in the Township's Land Use Assumptions Report (LUAR) projected the number of new dwelling units that could be accommodated on vacant or "underdeveloped" parcels throughout the Township under current zoning. Complete buildout of all developable residential land in the Township was projected to allow 2,239 new dwelling units under the zoning in effect in 2002.

The relatively little area that remains undeveloped in the growth areas is mostly zoned for low-density residential use. Within the four growth areas, the projections in the 2002 LUAR buildout analysis identified the following limits under zoning at the time:

- Fairview Village: 94 new dwelling units
 - Center Point: 86 new dwelling units
 - Locust Corner: 27 new dwelling units
 - Cold Spring: 82 new dwelling units
- Total of all four: 289 new dwelling units

However, development in recent years has consumed much of the developable land in the growth areas, shown in Figure 7 - 1, which limits the ability of the growth areas to accommodate new development.

The LUAR assumed that the amount of short-term (10-year) residential development would be similar to that of the previous 10 years (900 dwelling units). Some of that projected short-term development has already been approved, and more development is currently undergoing review, including developments within or adjoining high-priority rural preservation areas. The projected 900 units plus the 870 approved between 1992 and 2001 account for almost all of the 1,800 dwelling units anticipated in the 1995 Open Space Plan to be accommodated in the growth areas until the year 2020. The LUAR projected that those 900 new dwelling units would be developed by 2012.

HOUSING ALLOCATION

Worcester's existing housing consists predominantly of single-family detached homes. However, the percentage of single-family detached dwellings has decreased because of new developments of single-family attached dwelling types. In 1990, 75% of all dwellings in the Township were single-family detached. In 2000, the number dropped to 67%, primarily because of the addition of new developments of single-family attached dwellings.

In Chapter 1, Figure 1 - 3 identified 3,021 acres of land in agricultural use and 793 acres of "undeveloped" land or land being used for unknown purposes in 2005. This total of 3,814 acres is potentially developable, primarily as residential use. The majority of the 3,814 acres is located in the areas identified in the 1995 Comprehensive Plan as "highest" and "high" priorities for preservation of rural character, along with some areas of "moderate" priority.

COMMERCIAL LAND USE

In concurrence with its goals of maintaining a rural agricultural and residential character, the Township proposes to limit commercial development to smaller-scale neighborhood and convenience commercial uses. Community and regional level shopping is conveniently available in surrounding communities, where residents can shop for clothing, jewelry, appliances, housewares, furniture, cars and



View along Hollow Road of protected land (foreground) and new housing (background) Photo: MCPC

Figure 7 - 1
1995 Comprehensive Plan Growth Areas Map

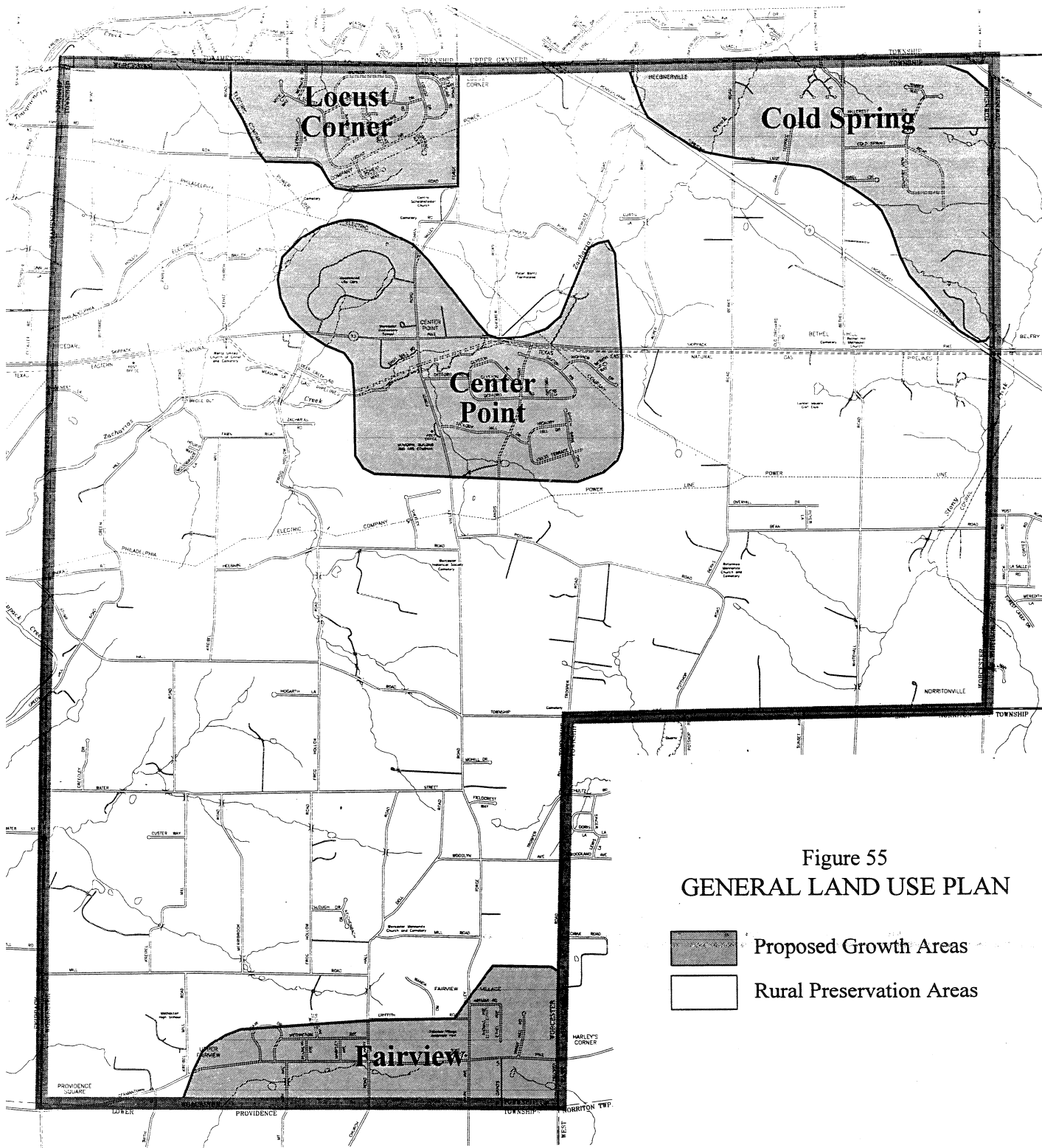


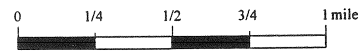


Figure 55
GENERAL LAND USE PLAN

-  Proposed Growth Areas
-  Rural Preservation Areas



Montgomery County Planning Commission
Courthouse, Norristown, PA Fall 1995

other durable goods. Therefore, Worcester's commercial land is intended for neighborhood and convenience uses that serve everyday shopping needs of local residents, generally within a 1½-mile radius. These uses typically include small-scale retail and service businesses.

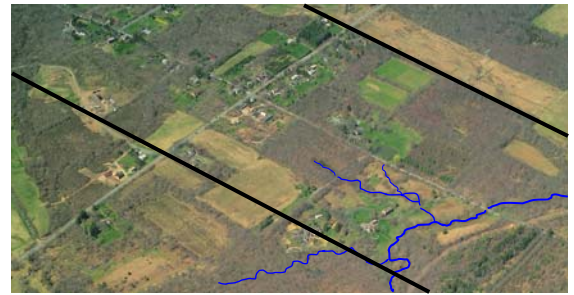
Commercial land use is planned along Germantown Pike, Skippack Pike, and Valley Forge Road, concentrated primarily at the township's two main villages, Fairview Village and Center Point, similar to the concepts proposed in the 1995 Comprehensive Plan. These two areas provide close, accessible commercial land for most of the township and already include some of the largest existing commercial uses.

AREAS IDENTIFIED FOR PRESERVATION OF RURAL CHARACTER

In the 1994 Open Space Plan, areas of the township were identified which contribute to its rural character with a variety of features. These areas were prioritized regarding their importance for preserving rural character and environmental features. These areas are shown in Figure 7 - 2 and described in the following summary:

Bean Road and Stony Creek Area (Area #1 in 1995)

This area has one of the highest concentrations of natural and scenic resources in the township, including extensive environmental constraints and amenities, such as headwater streams, steep slopes, woodlands, floodplain and wetlands, as well as beautiful views along the length of Bean Road. The headwaters of Stony Creek are proba-



Aerial View of part of Area #1 with lines drawn to indicate the area shape and location of the creek Photo: Pictometry

bly some of the most environmentally sensitive resources in the township. Homes along Bean Road are located on large lots, generally hidden from view along the road by dense woodlands. The lack of farm fields constricts the viewscape, making the rural woodland character seem more intense.

Western Farmlands (Areas #2, 4, and 5 in 1995)

Area #2 extends from Valley Forge Road towards Evansburg State Park generally along Stump Hall Road. It contains extensive farmland with prime agricultural soils and two large groups of agricultural security district farms. Agriculture is the predominant land use and there are relatively few residential lots stripped out along the area's roads. It is in the heart of the township's least developed area with no major developments next to it, nor are any proposed, except one at Heebner and Valley Forge Roads. This area is more likely than any other part of the township to keep significant farmland away from intense residential development and the conflicts that often arise between these two land uses. It is crossed by two scenic roads and has long-range views from Valley Forge Road west towards the Skippack Creek valley.

Priority areas #4 and #5 provide a natural extension of area #2 towards Evansburg Park and area #3. They include farmland, environmentally sensitive areas, and scenic views.

Evansburg Woodlands (Area #3 in 1995)

Most of this area is wooded and acts as an extension of Evansburg State Park directly to the northwest. Similar to area #1, it has extensive environmental constraints, probably some of the most sensitive land in the township, including steep slopes, wetlands, and floodplain.

Locust Corner/Center Point Farmlands (Area #6 in 1995)

This area extends from Morris Road to Skippack Pike, in the Zacharias Creek basin. It has Worcester's largest concentration of agricultural security district farms, forming one of Worcester's several "superclusters" of farmland, as well as one of the township's largest concentrations of prime agricultural soils. It includes Merry-



View of portion of Area #2 from above Stump Hall and Hollow Roads towards Valley Forge Road in 1980s. The light-colored field at the top has since been developed.

Photo: Bill McGrane, Jr.



View of a portion of Area #6 from Valley Forge and Schultz Roads

Photo: MCPC

mead farm and Peter Wentz Farmstead, as well as over 100 acres of farmland and woods that have already been permanently preserved.

Berks/Weber Road Farmlands (Area #7 in 1995)

This area is relatively high and has long views of Worcester Township, especially along Berks Road on its eastern side. It also has extensive steep slopes and a number of parcels in the township's agricultural security district.

Stony Creek Farmlands (Area #8 in 1995)

This area adjoins area #1 and has a number of similar environmental constraints as well as extensive farmlands.

2005 BUILDOUT ANALYSIS

The Future Land Use Plan (Figure 7 - 2) adopted as part of the 1995 Comprehensive Plan outlines the Township's desired growth patterns, and Worcester's current zoning meets the minimum standards described in that plan. However, much of the projected growth has already happened.

As mentioned in Chapter 1, the population forecast predicts a population increase of 1,551 residents between 2000 and 2010. With an average of about 2.6 persons per household, that is about 590 housing units projected to be needed between 2000 and 2010. According to building permit records, 421 of these units had already been built by the end of 2004, leaving only 169 housing units that would need to be built between 2005 and 2010 to house the projected population. However, at the 2000 to 2004 rate of construction, there could be 1,161 new units between 2000 and 2010 (Figure 1 - 11) or double the expected growth rate. There are eight medium to large housing projects currently under construction or review that propose to provide 349 housing units on 518 acres.

This indicates that either the population projection was low or growth has been faster than expected. The ultimate amount of growth is limited only by the zoning and the amount of available land. Three new buildout analyses have been performed to indicate the total amount of growth that is possible in the future: two simple projection calculations and one mapped total buildout.



Aerial view of Area #8

Photo: Pictometry

SIMPLE PROJECTION CALCULATIONS

POPULATION PROJECTION METHOD

Figure 7 - 3 shows one simplified method that uses the projected future population to calculate the number of homes necessary to house the future population. The projected populations are estimates by the Delaware Valley Regional Planning Commission (Figure 1 – 4). The future average household size is an estimate by MCPC, based on the year 2000 household size of 2.69 and national, state, regional and county trends toward slightly smaller households. The vacancy rate is based on past and current county and township trends. The vacancy rate in 2000 was about 3.4%. The total future housing units is the resulting calculation, and the number of future units is determined by subtracting the number of homes existing in 2000 (3,007) from the total.

Potential residential land remaining includes all the agricultural, unknown and undeveloped lands shown in Figure 1 - 3, minus the 350 acres of currently preserved agricultural land (Figure 3 - 1). Note that these are 2005 figures, and 421 houses were built between 2000 and the end of 2004, providing in those 4 years 23% of the 1,801 housing units projected to be needed between 2000 and 2025. The acres per unit average is based on the following: in early 2005 there were about 3,400 housing units on about 4,200 acres of land, which is about 1.24 acres per unit. The average for 2025 and 2030 was increased from this figure be-



The Milestone development in Worcester

Photo: Pictometry

cause most of the remaining land available for new housing is zoned for low density. From this information the potential acres consumed and the remaining residential land are calculated.

According to these estimates, only about 500 acres of potential residential land, 5% of the entire area of the township, may remain undeveloped by 2030.

CONSTRUCTION PROJECTION METHOD

Another method to project future housing and land usage is to use the current rate of construction to project housing and land usage forward either to a specific date or to total buildout. Figure 7 - 4 illustrates the figures for Worcester.

This analysis assumes that the current trends in housing development approval and construction will continue after 2010 at about 2.5% per year, half the rate as the time period between 1990 and 2004. The construction rate used for the period between 2004 and 2006 accounts for develop-

Figure 7 - 3

Residential Buildout Estimate: Population Projection Method

| Residential | 2025 | 2030 |
|---|--------|--------|
| Projected Population in Households (persons) | 11,290 | 12,000 |
| Future Average Household Size (persons/household) | 2.62 | 2.60 |
| Vacancy Rate of Housing | 2.30% | 2.20% |
| Total Future Housing Units (homes) | 4,408 | 4,717 |
| New Future Units Projected to be Needed after Year 2000 (homes) | 1,401 | 1,710 |
| Potential Residential Land Remaining in 2005 (acres) | 3,481 | 3,481 |
| Acres Per Unit, average | 1.75 | 1.75 |
| Potential Acres Consumed (new x acres / unit) | 2,452 | 2,993 |
| Future Residential Land Remaining (acres) | 1,029 | 488 |

Sources: MCPC, DVRPC

Figure 7 - 4
Residential Buildout Estimate: Construction Projection Method

| Year and Time Period | Housing Units | Rate of Change | Annual Rate of Change | Acres Developed for Housing | Rate of Change | Annual Rate of Change | Acres per Housing Unit | Acres Developed since 2005 | Acres Agricultural/ Unknown/ Undeveloped Land Remaining |
|--------------------------------|---------------|----------------|-----------------------|-----------------------------|----------------|-----------------------|------------------------|----------------------------|---|
| through 3/2000 | 3,007 * | | | | | | | | |
| 3/2000 to 12/2004 (4.75 years) | 421 | 14.0% | 2.9% | | | | | | |
| through 12/2004 | 3,428 ** | | | 4,230 (to 3/2005) ** | | | 1.23 | | 3,481 (to 3/2005) ** |
| 1 year (2005) | 40 *** | 1.2% | 1.2% | 67 (2005) *** | 1.6% | 1.6% | 1.68 | | |
| through 12/2005 | 3,468 | | | 4,297 | | | | 67 | 3,414 |
| 1 year (2006) | 97 *** | 2.8% | 2.8% | 184 *** | 4.3% | 2.2% | 1.90 | | |
| through 12/2006 | 3,565 | | | 4,481 | | | | 251 | 3,230 |
| 4 years (2007-2010) | 603 | 16.9% | 4.1% | 941 (603 x 1.56) | 21.0% | 5.1% | 1.56 | | |
| through 12/2010 | 4,168 | | | 5,422 | | | | 1,192 | 2,289 |
| 5 years (2011-2015) | 553 | 13.3% | 2.5% | 996 (553 x 1.80) | 18.4% | 3.6% | 1.80 | | |
| through 12/2015 | 4,721 | | | 6,418 | | | | 2,188 | 1,293 |
| 5 years (2016-2020) | 627 | 13.3% | 2.5% | 1,254 (627 x 2.00) | 19.5% | 3.8% | 2.00 | | |
| through 12/2020 | 5,348 | | | 7,671 | | | | 3,441 | 40 |
| 5 years (2020-2025) | 710 | 13.3% | 2.5% | 1,562 (710 x 2.20) | 20.4% | 4.0% | 2.20 | | |
| through 12/2025 | 6,058 | | | 9,233 | | | | 5,003 | -1,522**** |

* 2000 Census data
 ** MCPC data
 *** based on building permit and approval data
 **** A negative amount of land is not possible, however this projection Indicates that, under current trends, no land will be left for residential development sometime between 2020 and 2025, 15 to 20 years from now.

ments currently under construction, approved, or being reviewed. The 2.5% housing construction rate is then used after 2010. Another assumption used for this analysis is that future housing will use an average of about 1.8 to 2.2 acres per housing unit. This reflects current zoning, existing natural constraints, and that the land that is easiest and most efficient to develop has been developed or will be developed first.

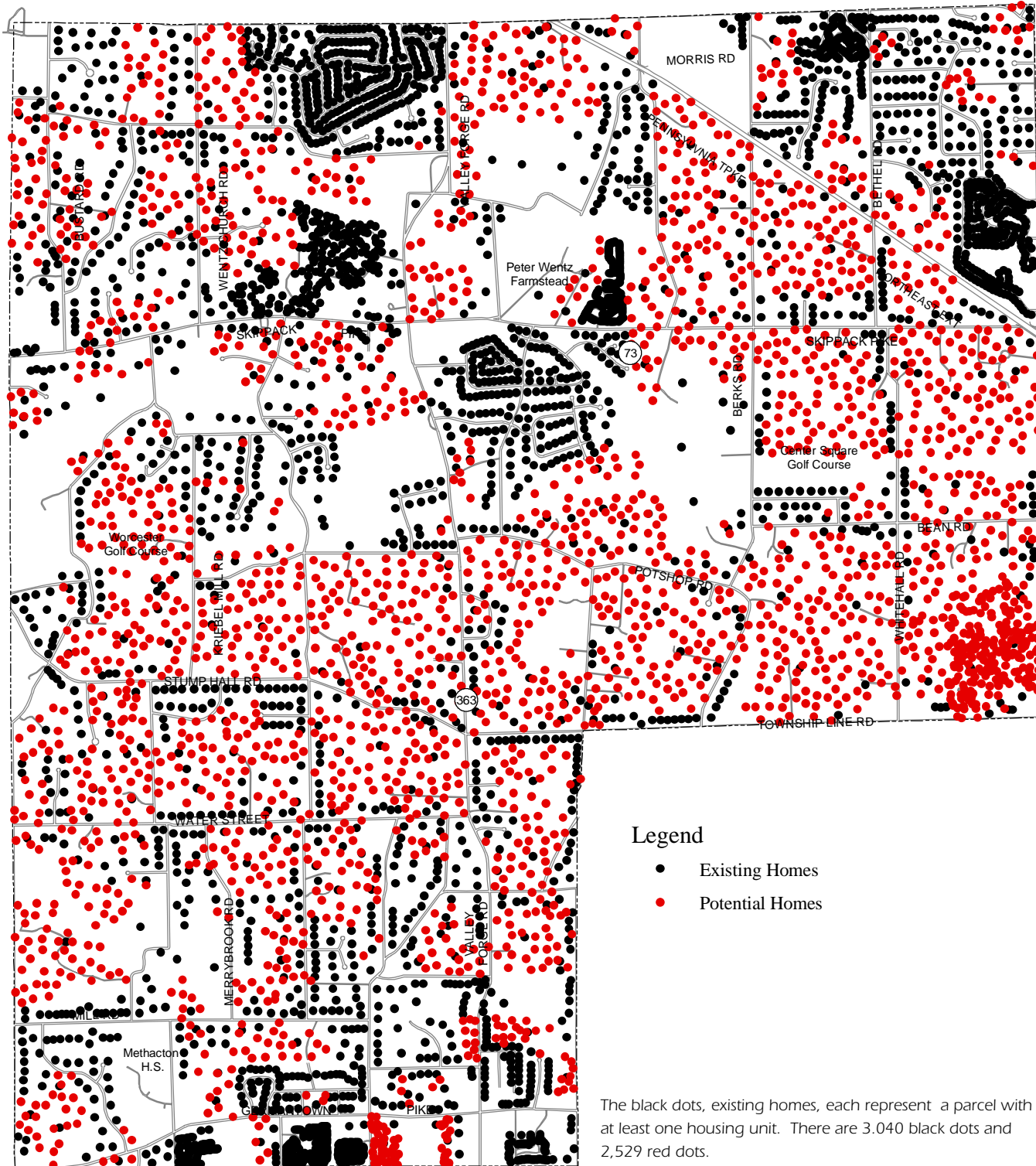
The analysis also calculates the amount of land used for housing as it is built and subtracts that amount from the land left available for development.

The result is that at the current rate of construction and with current zoning, all developable land will be gone soon after 2020, resulting in a total of about 5,500 housing units at that time. In comparison, the population projection method indicates only 4,800 units would be needed by 2025.

MAPPED TOTAL BUILDOUT

This method used to determine residential buildout is the same as that used by the county to conduct a fair-share housing analysis. This method examines undeveloped land (those parcels with land use designations of country residence, undeveloped, and agriculture), but does not consider underdeveloped land (land that has development on it, but could be further subdivided or developed more intensely). It assumes that natural features including floodplains, wetlands and steep slopes will not be built upon, and that approximately 20% of a site's area will be used for roads, driveways, and utilities. The method used here results in a map that represents potential households. The red dots have been randomly placed within the developable areas based on the maximum density allowed in each zoning district (Figure 7 - 5). These dots do not represent the ac-

Figure 7 - 5
 Potential Ultimate Residential Buildout Map



Legend

- Existing Homes
- Potential Homes

The black dots, existing homes, each represent a parcel with at least one housing unit. There are 3,040 black dots and 2,529 red dots.

NOTE: The residential buildout calculations are the result of a simplified analysis based upon vacant land and zoning. The potential new units are randomly distributed and have no relation to specific parcels. The number of units permitted on a given parcel can only be determined following a site-specific analysis and strict conformance to the township's zoning and subdivision and land development ordinances.

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This map is based on 2000 ortho photography and official sources. Property lines were compiled from individual block maps from the Montgomery County Board of Assessment Appeals, with no verification from the deed. This map is not meant to be used as a legal definition of properties or for engineering purposes.

0 1,600 3,200 6,400 Feet
 Base map prepared date

tual locations of future homes. Existing homes are represented by black dots placed in the center of each residentially developed property.

Figure 7 - 5 illustrates one potential allocation scenario of full residential buildout township-wide. We have calculated the number of houses possible in each zoning district and distributed future houses throughout each zoning district. The total number of new houses possible with current zoning is 2,608. Due to computer limitations, the map does not take into consideration that although much of that housing has been calculated to use the density bonuses of the RPD cluster option, which would preserve about 35% of the land as open space, the potential houses have been scattered over entire parcels.

Although this method projects that 2,608 new housing units could ultimately be built in the township, according to the population projection method, by 2020 only approximately 635 new units since 2004 will be required to house the projected population of 10,530. Therefore, according to this model it is not likely that buildout will be reached within the next 15 years. Beyond that time period, it may be possible that the township will reach the forecasted buildout if changes to the current zoning ordinance and other policies are not made. On the other hand, the construction projection method indicates that buildout could occur sometime around 2020.

SUMMARY

Worcester Township has committed to a policy of growth management. In the face of suburbanization, realizing Worcester is under great pressure to grow enables the Township to plan for its future open space needs, as well as its needs for infrastructure and various other programs. Development projections indicate that at the current rate of housing development, all the land in the township will be built out by around 2020 and the Township should look for more specific ways to preserve as much agricultural land and open space as possible to provide as much agriculture, recreation, and resource conservation as possible for future residents.



View of the Sunnybrook development in the Cold Spring area of Worcester

Photo: Susan Caughlan



Worcester's community park, Heebner Park

Photo: unknown

CHAPTER 8

EVALUATION OF OPEN SPACE NEEDS

This chapter of the plan will discuss the existing and projected recreational and open space needs for rural communities. The availability of facilities in relation to existing and projected population growth will be analyzed. National and regional standards for public recreational land will be reviewed and applied to Worcester Township. Needs will be assessed for the present and forward to the year 2025.

EVALUATING OPEN SPACE NEEDS

A 1983 guide by the National Recreation and Park Association (NRPA), *Recreation, Park and Open Space Standards and Guidelines*, provided strategies for calculating the acreage needs of municipal park systems. The 1983 guidelines suggested that a municipal park system have 6.25 to 10.5 acres of land per 1,000 people. These standards, as well as standards from Delaware Valley Regional Planning Commission (DVRPC), traditionally have been used to calculate park needs for a majority of the communities in Montgomery County. This publication, how-

ever, has now been replaced due to the expanded role parks and open space play in local communities.

The newest publication by the NRPA and the American Academy for Park and Recreation Administration, titled *Park, Recreation, Open Space and Greenway Guidelines*, was produced in 1996. The new title is indicative of the shift in looking at the role of open space. The more recent publication shifted its philosophy to provide only guidance, ultimately allowing the amount of park, recreation, and open space to be defined by individual communities. The 1996 publication emphasizes a systems approach to park, recreation, open space, and greenway planning which focuses on local values and needs rather than strict formulas.

This new systems approach looks at the level of service provided to the users of the facilities rather than the size of the facilities based upon population. This method reflects, in part, the dual function of municipal parkland: providing recreation opportunities (passive and active) and protecting important natural features. Municipal parks often contain a significant amount of environmentally sensitive land, which prevents some of the acreage from being utilized for active recreation. Under these guidelines, a 5-acre municipal park that contains few significant natural features and is fully developed may provide the same level of service as a 35-acre park that provides recreation and also protects important woodlands, wetlands, and other environmental ameni-

ties. The difference hinges upon the individual goals of the municipality and not an arbitrary per-capita acreage figure.

However, in order to conduct a meaningful level-of-service analysis, the township would need to compile detailed user surveys and facility inventories. While this detailed study would be a key element for a township recreation plan, it is not necessary for characterizing the general recreation opportunities in Worcester Township, which is a part of this plan. This is especially true given the township's development of a central community park (Heebner Park) and the distribution of lands for existing and future neighborhood parks. Therefore, the per-capita acreage figures will be used only to confirm whether the township has at least the minimum acreage needed for active parkland. Both the low and high ratios are used to create a range for evaluating existing conditions. Under the old standards, with almost 9,000 residents by 2005, Worcester Township should have between 56 and 93 acres of parkland that is not intended primarily for natural resource protection. Worcester currently has 62 acres of such active and passive recreation parkland (Heebner, 46 acres; Mt Kirk, 7 acres; Sunnybrook, 9 acres). The locations of the existing parks are shown in Figure 8 - 1.

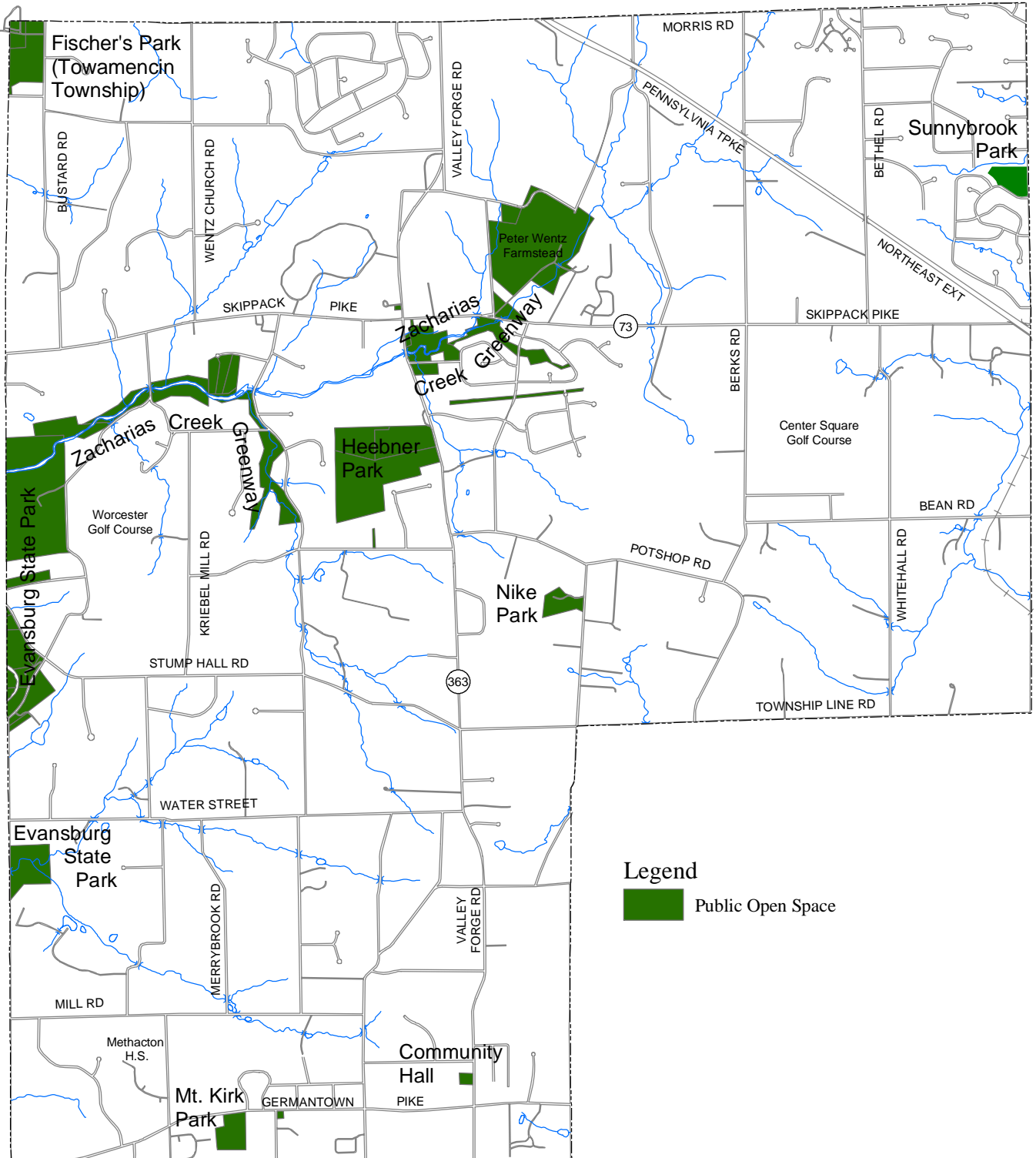
The next aspect to consider is whether the recreation parks are the right kind and if they are in the right locations. Perhaps certain parks should be expanded, or a new park might be needed in an



Aerial View of Heebner Park showing the soccer, baseball, tennis, and walking trail facilities

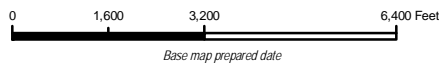
Photo: Pictometry

Figure 8 - 1
Existing Public Open Space



Legend
 Public Open Space

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area of the township that is too far or inconveniently located from the existing parks. In addition, perhaps some valuable natural resources have been identified and should be preserved. Since each community is located in its own unique landscape, no formula can provide a standard for the size of these kinds of parks. Each community will have to determine for itself how much and what kinds of natural resources to preserve.

PARK TYPES

To better understand the need for parks in the township, the parks and open space within Worcester Township have been classified into three general categories based upon the acreage, recreation potential, and natural resources of each area.

The first type of park, the Neighborhood Park, generally includes recreation lands between 1 and 15 acres with a service area up to ½ mile. These parks usually provide playground equipment, basketball courts, or tot lots, but may also contain a larger area for athletic fields to allow for both informal and organized recreation. Primarily, though, these parks are intended to serve the nearby residents for spontaneous or daily recreation, and convenient pedestrian and bicycle access is perhaps more important than large parking facilities, although some parking will usually be needed. Organized leagues are not common in these parks, so people from farther distances are not frequent users of this type of park,

which is why parking is not as important here.

Mount Kirk Park, with 7.6 acres, and Sunnybrook Park, with 8.4 acres, most closely fit this classification. While neither property yet contains the facilities of a full-fledged neighborhood park, they have the size and location potential to be developed as such. Nike Park, although it has not been developed as a park, would not be considered a typical neighborhood park because it is not located near many residents, nor is it well connected to those few nearby residents. Its location along the proposed cross-township trail would, however, make it a good location as a pedestrian, bicycle or equestrian trail head as well as a possible destination if it is ever developed with park facilities.

The second classification is Community Parks, which includes parks of 5 acres or more which serve multiple neighborhoods within one to two miles. Community parks generally contain numerous athletic fields or hard courts for a variety of sports, serving as a center of recreational activity within the community, and provide a central gathering place for special events. The only park in Worcester in this category is Heebner Park. At 46 acres, it is almost ten times the minimum size required for a community park and provides all the necessary facilities with significant room for expansion.

The final category, Natural Preservation Lands, includes lands that are primarily used for passive recreation and the protection of natural resources.



The tot lot in Heebner Park

Photo: MCPC

Figure 8 - 2
Old NRPA Standards Calculations

| Total Recreation Parkland | | | | |
|---|-----------------------|---|---|--|
| | Population | Range of recommended total recreation park area | Current total recreation parkland area | Needed amount of total recreation parkland area |
| 2005 | 8,900 | 56 to 93 acres | 62 acres (Heebner, Nike, Mt. Kirk) | 0 to 30 acres |
| 2030 | 15,000 (projected) | 94 to 157 acres | | 31 to 94 acres |
| Neighborhood Parks (1 to 10 acres in size) | | | | |
| | Population | Minimum recommended neighborhood recreation park area | Current total neighborhood recreation parkland area | Needed amount of total neighborhood recreation parkland area |
| 2005 | 8,900 | 11 to 19 acres | 16 acres (Mt. Kirk, Sunnybrook) | 0 to 3 acres |
| 2030 | 15,000 (projected) | 19 to 31 acres | | 3 to 15 acres |
| Community Parks (over 5 acres) | | | | |
| | Population | Minimum recommended total recreation park area | Current total recreation parkland area | Needed amount of total recreation parkland area |
| 2005 | 8,900 | 44 to 74 acres | 46 acres (Heebner) | 0 to 28 acres |
| 2030 | 15,000 (projected) | 75 to 126 acres | | 29 to 80 acres |
| Natural Preservation Lands | | | | |
| | Population | Potential natural preservation area | Current natural preservation area | Potential additional natural preservation area |
| 2005 | N/A | 500 acres | 150 acres | 350 acres |

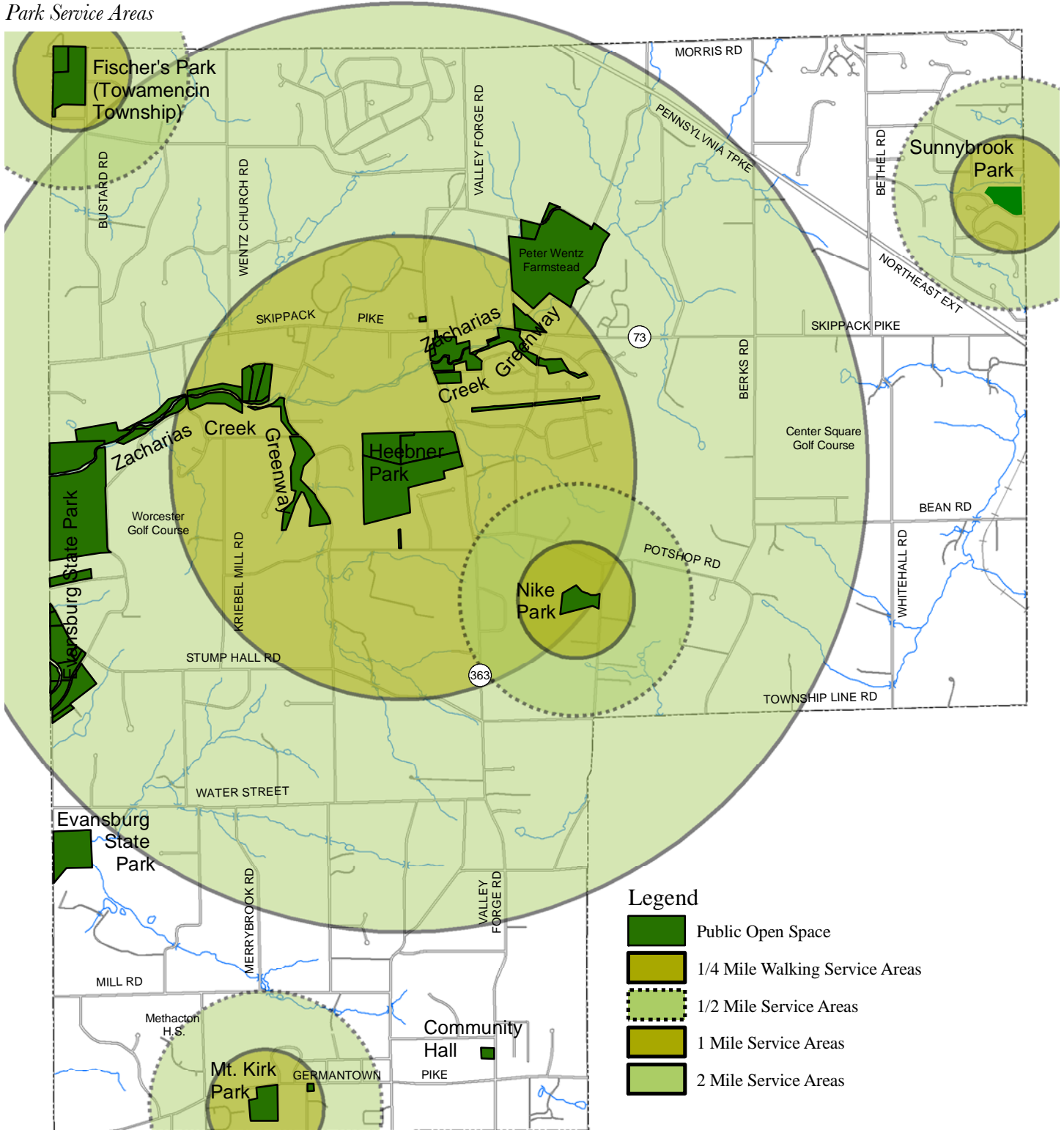
These lands total about 150 acres and include the Zacharias Creek lands as well as numerous other township-owned lands. While not available for active recreation use, these properties are valuable for their protection of natural resources and serve as corridors of passive open space within the township-wide and county-wide greenway system, as well as providing opportunities for passive recreation such as hiking, horseback riding, bird watching, and fishing.

RECREATION LAND NEEDS

The old NRPA recreation land acreage standards, while not a good tool to determine whether all types of open space needs are being met, still provide an absolute minimum acreage standard for recreation land.

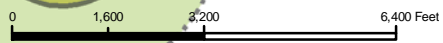
Using the township's estimated 2005 population of almost 9,000, the township currently is barely above the minimum acreage of the old NRPA standards

Figure 8 - 3
Park Service Areas



- Legend**
- Public Open Space
 - 1/4 Mile Walking Service Areas
 - 1/2 Mile Service Areas
 - 1 Mile Service Areas
 - 2 Mile Service Areas

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(see Figure 8 - 2) and could provide up to 30 acres of additional recreation parkland and stay within the old recommended standards for today's population.

Looking ahead 25 years to 2030, however, the projected population will have outgrown the recreation parkland and, overall, the township will need to add 31 to 94 acres of recreation parkland over that time.

Based upon park classification, the township currently barely meets the minimum community park acreage and falls short of the standard for neighborhood recreation parkland, where the township should already have 3 to 11 more acres. At 1 to 10 acres each, that means the township should already have two to five more neighborhood parks than currently exist.

Figure 8 - 2 indicates that by 2030, the township will need to add 7 to 23 acres of neighborhood recreation parkland and 29 to 80 additional acres of community recreation parkland.

Exceeding the minimum standard does not mean the township should not add additional recreation lands. The township should consistently look for opportunities for expansion of the township park system, through the creation of new parks and the expansion of existing parks, in order to provide for a diversity of recreation opportunities. For example, new park land along the Zacharias Creek may not provide opportunities for ballfields or playgrounds, but it will satisfy the township's objective of providing direct hiking access to Evansburg State Park for the central part of the township. Lastly, it may also

be necessary to exceed the minimum NRPA acreage standards in order to ensure that parks are accessible to all residents.

LOCATIONAL NEEDS

The systems approach to defining open space needs utilizes a level-of-service analysis that measures how the park facilities meet the demands of the users. However, the systems approach still recognizes the need to provide open space within a certain distance of all residents. While there are many factors to consider when acquiring land for open space, identifying those areas of the township outside the basic service area of existing parkland may help to prioritize further potential acquisitions. Figure 8 - 3 analyzes the service areas for community and neighborhood parks in order to identify areas that are underserved in terms of access to open space, particularly for active recreation.

Overall, the service area analysis indicates that many residents are not within a reasonable distance of either a neighborhood park or the community park. The community park classification provides service to a significant portion of the township, but not all of it. The areas underserved for a community park are the two corners of the township located east and west of Mount Kirk Park, the southeast corner of the township east of Whitehall Road, and the Cold Spring area. Given the township's current population, it is not unreasonable for the township to have a single centrally located community park. However, the township should consider all future opportunities that would allow for the creation of community or neighborhood parkland for the underserved areas, especially as the population in those areas increases.

In terms of neighborhood parks, the underserved areas include many of the most densely populated areas. Fischer's Park, owned by Towamencin Township, Mt Kirk Park, and the Sunnybrook park each provide neighborhood park service to Worcester residents in their respective areas of the township. Some neighborhood parks could perhaps be acquired and developed as new residential development takes place, possibly securing land via the development process, and as opportunities arise.



Zacharias Creek

Photo: MCPC

GREENWAY AND TRAIL DEVELOPMENT AND NATURAL RESOURCE PROTECTION

The NRPA does not have acreage standards for greenways that provide passive recreation or for protection of sensitive natural resources, such as wildlife or riparian corridors. Obviously, the physical characteristics of communities can vary greatly, as can the quality of existing environmental resources. Consequently, resource protection goals are very difficult to quantify.

Worcester's 1995 Comprehensive Plan and the 1994 Open Space Plan both identify the preservation of sensitive natural features, open space, and farmland as overall Township goals. Related goals include the preservation of the unique natural resources that identify Worcester, the conservation and protection of surface and subsurface water resources, the protection of floodplains and other sensitive natural areas, and the interconnection, through greenway development, of regional open space and habitat areas.

The maintenance of the rural residential character of Worcester is one of the Township's most important goals. The quality of life currently enjoyed by township residents is highly valued. It enables many to enjoy informal passive and active recreational activities in quiet, undisturbed woodlands and other natural areas. The Township cannot expect to protect all of the sensitive natural features and open

space within its borders, but it does intend to preserve as much as township resources and values allow as well as to preserve the most significant environmental, cultural and heritage resources on each parcel.

Greenways should ultimately connect both regional natural resources and recreational sites, such as Evansburg State Park, Heebner Park, Peter Wentz Farmstead, Fischer's Park, regional trails, and other natural resource preserves and recreation sites. Coordination with adjoining municipalities and regional plans is important for both resource protection and greenway design. The Township's Zacharias Creek lands protect an important stream corridor. This and the County's Powerline and Liberty Bell Trails, and the PECO lands that criss-cross the township, can become the central features of the township's greenway network linking the township's residents to a multitude of regional resources.

SUMMARY

Worcester has several areas with significant residential development which do not have convenient access to active or passive recreational facilities. As the township's population continues to grow, additional park facilities will be needed. A trail system can add synergy to the Township's park system by connecting destinations within and outside the township, as well as connecting Worcester residents to the county's park and trail system.



A creekway with a variety of habitats along Hollow Road

Photo: MCPC



Gwynedd Wildlife Preserve in Upper Gwynedd, a nearby destination for Worcester residents

Photo: MCPC

CHAPTER 9

EVALUATION OF COUNTY AND ABUTTING MUNICIPAL PLANS

The preceding chapters investigate the resources, needs, and opportunities that exist within Worcester Township. With this information, recommendations can be made to effectively serve township residents. However, the land use decisions that Worcester Township makes affect the larger region, just as decisions made in neighboring municipalities affect Worcester. Perhaps even more important, an evaluation of adjacent municipal plans may reveal that one or more neighboring municipalities have similar goals and objectives. By working together, two or more municipalities may be able to accom-

plish a goal that otherwise would have been difficult, expensive or unattainable.

This chapter compares the recommendations of this plan with those in the County Comprehensive Plan and the comprehensive and open space plans of abutting townships. The intent is to prevent conflicts between plans and to encourage collaborative efforts. By gaining an understanding of how Worcester Township's plan will fit into the larger open space and pathway linkage picture, partners can optimize both the quantity and quality of future open space preservation and management.

COMPARISON TO MONTGOMERY COUNTY PLANNING DOCUMENTS

COMPREHENSIVE PLAN

In 2001, Montgomery County began updating its Comprehensive Plan. This plan will help guide the growth of housing, transportation, economic development, and natural and cultural resource management through 2025 and beyond. Each of these factors could potentially have a great impact on open space needs and opportunities in Worcester Township.

The foundation of the Comprehensive Plan is the Vision Plan. In addition to specific goals and actions across a variety of planning issues, the Vision Plan outlines five basic issues:

- Directing new development to logical places
- Effectively managing traffic congestion
- Preserving open space and farmland
- Revitalizing main streets and brownfields
- Offering a variety of housing, job, shopping, and recreational choices

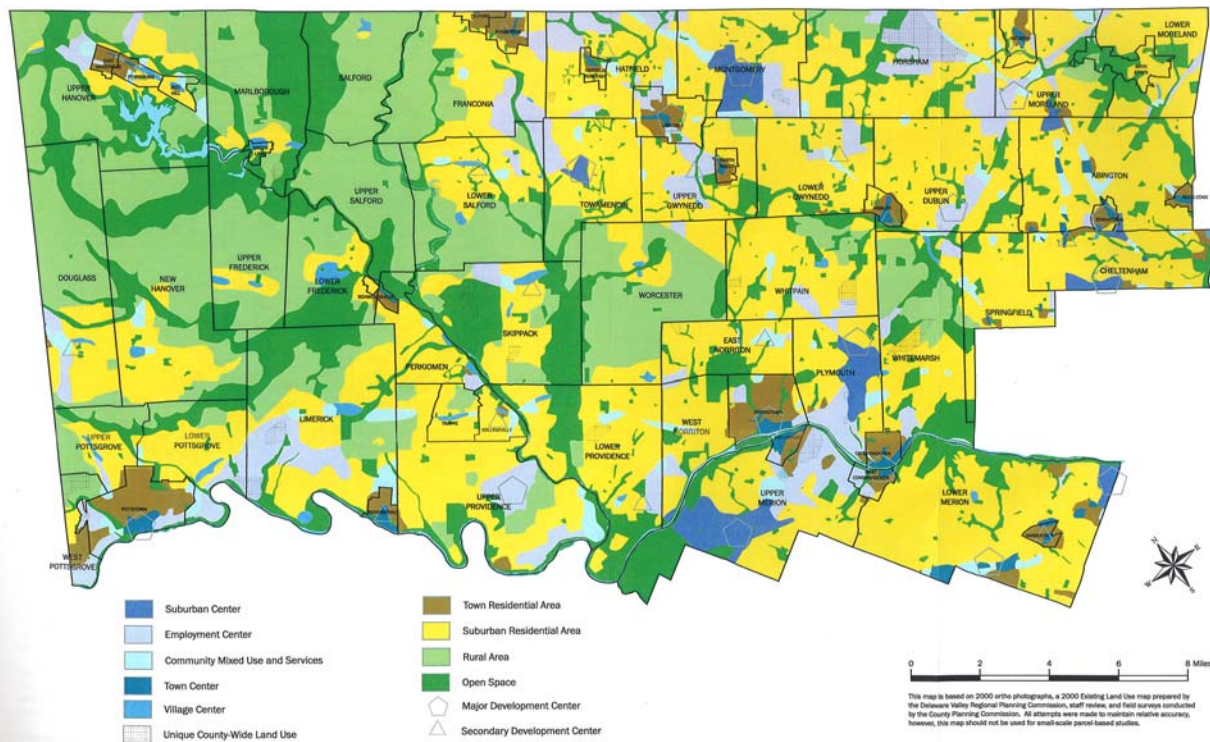
Worcester's Open Space Plan addresses all of these issues by setting a future course for wise land use,

increasing linkages and accessibility, directing and diversifying new development, and preserving open space.

The draft version of the County Comprehensive Plan lists 48 goals that describe and expand upon the vision of the County in 2025. Several of these goals parallel those in this plan, adding strength to the recommendations set forth later in this plan.

In terms of land use, the County Comprehensive Plan complements the Worcester Township Comprehensive Plan, designating Worcester mostly as rural area, with growth areas and open space that correspond to those in the Township's Comprehensive Plan.

Additionally, the County Comprehensive Plan identifies two "daily use" scenic roads in Worcester, Morris Road and Skippack Pike, as well as several scenic roads that are mentioned in Worcester's Comprehensive Plan. Worcester should work cooperatively with Skippack, Towamencin, Upper Gwynedd, Whitpain, and Whitmarsh Townships to ensure that the scenic value of the "daily use" corridors is preserved. The County Comprehensive Plan outlines several methods that might help preserve these scenic roads. The plan can be found on-line at: www.montcopa.org/plancom/comprehensiveplan/default.htm



Excerpt from the Montgomery County Comprehensive Plan

Source: MCPC

MONTGOMERY COUNTY TRAIL SYSTEM

The Montgomery County Trail Plan was adopted in 1996 as part of the County's Open Space Plan and is being updated in the Comprehensive Plan element dealing with Open Space, Natural Features, and Cultural Resources. Prior to adoption of the plan, a trail along the Schuylkill River, known as the Valley Forge Bikeway, had been completed between Philadelphia and Valley Forge National Historic Park. This bikeway is now known as the Schuylkill River Trail. However, since the development of the Trail Plan, numerous other projects have been completed and initiated. These updates and changes will be reflected in the County's new Comprehensive Plan.

The only county trails that directly involve Worcester Township are the Powerline and Liberty Bell Trails. One long segment of the Powerline Trail is already open in Horsham Township, several miles and townships away. The entire trail connects the Cross County Trail in Upper Moreland Township with the Evansburg Trail in Evansburg State Park. The Liberty Bell Trail is currently being designed for development in the near future. It connects from the Schuylkill River Trail in Norristown, along North Wales Road on the Worcester and Whitpain border, through Lansdale, Hatfield, and Souderton, eventually ending up in Quakertown.



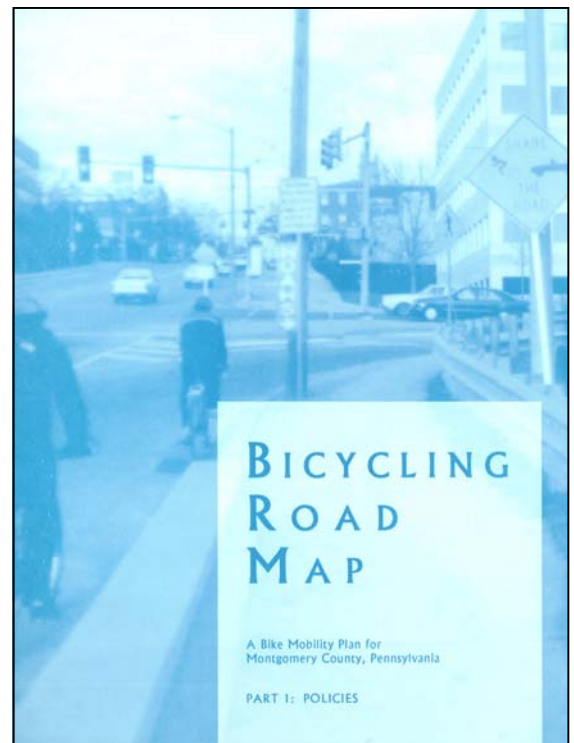
A segment of the Perkiomen Trail

Photo: MCPC

Other nearby proposed trails that may provide recreation opportunities for Worcester residents include the Green Ribbon Trail, along the Wissahickon Creek from Upper Gwynedd Township to the Cross County Trail in Whitmarsh Township, and the Evansburg Trail, which will loop through Evansburg State Park and the Lower Salford Trail system and connect to the Perkiomen Trail at both ends.

MONTGOMERY COUNTY BICYCLE MOBILITY PLAN

The Montgomery County Bicycle Mobility Plan was adopted in 1998 and will be updated as part of the Transportation element of the new Comprehensive Plan. The purpose of the plan is to increase bicycling as a valid and safe alternative to automobile transportation. The plan recommends roles and responsibilities for both public and private sectors to provide bicycle-supportive facilities and programs, including necessary road improvements. Specifically, the plan identifies roads in the county that should be improved to accommodate bicyclists. These roads are divided into two categories: primary routes and secondary routes. The purpose of the two categories is to match the road difficulty with the skill level of bicyclists. The primary routes should be suitable for all types of bicycle riders and should be provided with facilities that range from 6-foot bike lanes to 4-foot or 8-foot shoulders, depending on local conditions. The secondary routes should also be suitable



for all types of bicycle riders but should be provided with equal or only slightly less accommodating facilities that range from 12-foot-wide shared lanes on low-volume, low-speed rural roads to 6-foot shoulders on higher volume, higher speed roads, depending on local conditions. Some roads have high traffic volumes at high rates of speed while others have lower traffic volumes at lower speeds. While experienced bicyclists may be comfortable with all types of streets, the less experienced riders may be comfortable only on local, low-volume streets.

In Worcester Township, Skippack Pike (Rt. 73) and Valley Forge Road (Rt. 363) are designated as Primary Bicycle Routes. Germantown Pike, Stump Hall Road, Township Line Road, Trooper Road, Woodlyn Avenue, Whitehall Road, Bethel Road, North Wales Road, and Morris Road, are designated as Secondary Bicycle Routes.

To take into account both the nature of the street and the experience level of bicyclists, the Federal Highway Administration (FHWA), in its 1994 publication *Selecting Roadway Design Treatments to Accommodate Bicycles*, divided bicyclists into three classes:

- Group A (Advanced) Bicyclists – These are experienced riders who can operate under most traffic conditions. They comprise the majority of the current users of collector and arterial streets. Advanced bicyclists are best served by sufficient operating space on the roadway or shoulder to reduce the need for either the bicyclist or the motor vehicle to change position when passing.
- Group B (Basic) Bicyclists – These are casual or new adult and teenage riders who are less confident of their ability to operate in traffic without special provisions for bicycles. Basic bicyclists are best served by bike paths and other facilities that provide a well-defined separation of bicycles and motor vehicles on arterial and collector streets.
- Group C (Child) Bicyclists – These are preteen riders whose roadway use is initially monitored by parents. As their riding skills develop, child bicyclists are accorded independent access to the system. Like Group B bicyclists, children are best served by bike paths and other facilities that provide a well-defined separation of bicycles and motor vehicles on arterial and collector streets.

Based on practical and professional judgment, the FHWA guidelines prescribe four basic types of road improvements (shared lanes, wide curb lanes, should-

ers, and bike lanes) to accommodate the three classes of bicyclists on public roads.

In addition to the County Bicycle Mobility system, the state has designated a few roads in Worcester as part of the State Bike Trail "S," which connects Ohio to New Jersey. These roads are: Trooper Road, Township Line Road, Potshop Road, Berks Road, and Skippack Pike.

Finally, as part of PennDOT's process of repaving and restriping roads, municipalities and counties are contacted for their review comments. One aspect of this review is the accommodation of bicycles. When feasible, PennDOT will restripe a road so that bicycles have more room on the edge of the road. Montgomery County reviews all proposed repavings and restripings and, based primarily on the Bicycle Mobility Plan, notifies a bicycle committee at PennDOT of any change it feels should be made to accommodate bicycles.

RELATION TO PLANS OF ABUTTING MUNICIPALITIES

Six townships abut Worcester and one, West Norriton, touches just a corner of Worcester. The principles from the current or draft open space policies and sometimes other pertinent information about each township are briefly summarized below. Adjacent yet incompatible land uses may result in conflicts, whereas potential linkages could lead to cooperative partnerships between municipal neighbors.

To participate in the Montgomery County Open Space Program in the mid-1990's, each of these municipalities developed open space plans. In the ten years since these open space plans were written, parcels have been preserved, trails proposed and developed, and the needs of the communities have changed. It is therefore vital that Worcester keep abreast of the continually evolving planning efforts of its neighbors and the county.

Figure 5 - 2 in chapter 5 shows many of the trails that are discussed here.

SKIPPACK TOWNSHIP

Skippack Township adopted an Open Space Plan in 1996. The entire border shared by the two townships is occupied by Evansburg State Park. Skippack's Open Space Plan identified the desire to cre-

ate a trail along the PECO powerline from Evansburg Park to River Road, then north along the road and crossing the Perkiomen Creek to the village of Graterford, meeting the recently completed Perkiomen Trail there. This would effectively extend the County's Powerline Trail from Evansburg Park to the Perkiomen Trail, so that the full length of the Powerline Trail could extend from Willow Grove in Upper Moreland Township all the way to Graterford on the Perkiomen Creek.

The Skippack Open Space Plan also developed recommendations for other local trails interconnecting their proposed park areas.

Finally, the Skippack Open Space Plan identifies some scenic roads that border or enter Worcester: Grange Avenue, Stump Hall Road, Anders Road, and Cedars Road.

TOWAMENCIN TOWNSHIP

Towamencin Township adopted a Park, Recreation & Open Space Plan in the 1990s and is working on a plan update to be adopted in 2006. A set of goals and objectives has been developed to guide the formulation of the update. The goals most relevant to Worcester will be discussed here.

Goal 4, "Coordinate Township efforts with the regional open space network," includes the following objectives:

- Coordinate open space preservation, trail linkages, and facilities planning efforts with the efforts of other levels of government, abutting municipalities, and institutional entities.
- Continue to develop existing and new Township trails and linkages with the countywide trail system.

Chapter 5 of this open space plan for Worcester discusses the potential linkages with Towamencin more thoroughly.



A meadow along Garges Road near the East Branch of the Perkiomen Creek in Skippack Township

Photo: Bill McManus



The Trumbauer Road stone arch bridge over the Towamencin Creek in Towamencin Township is close to Worcester Township, and the creekway is public parkland

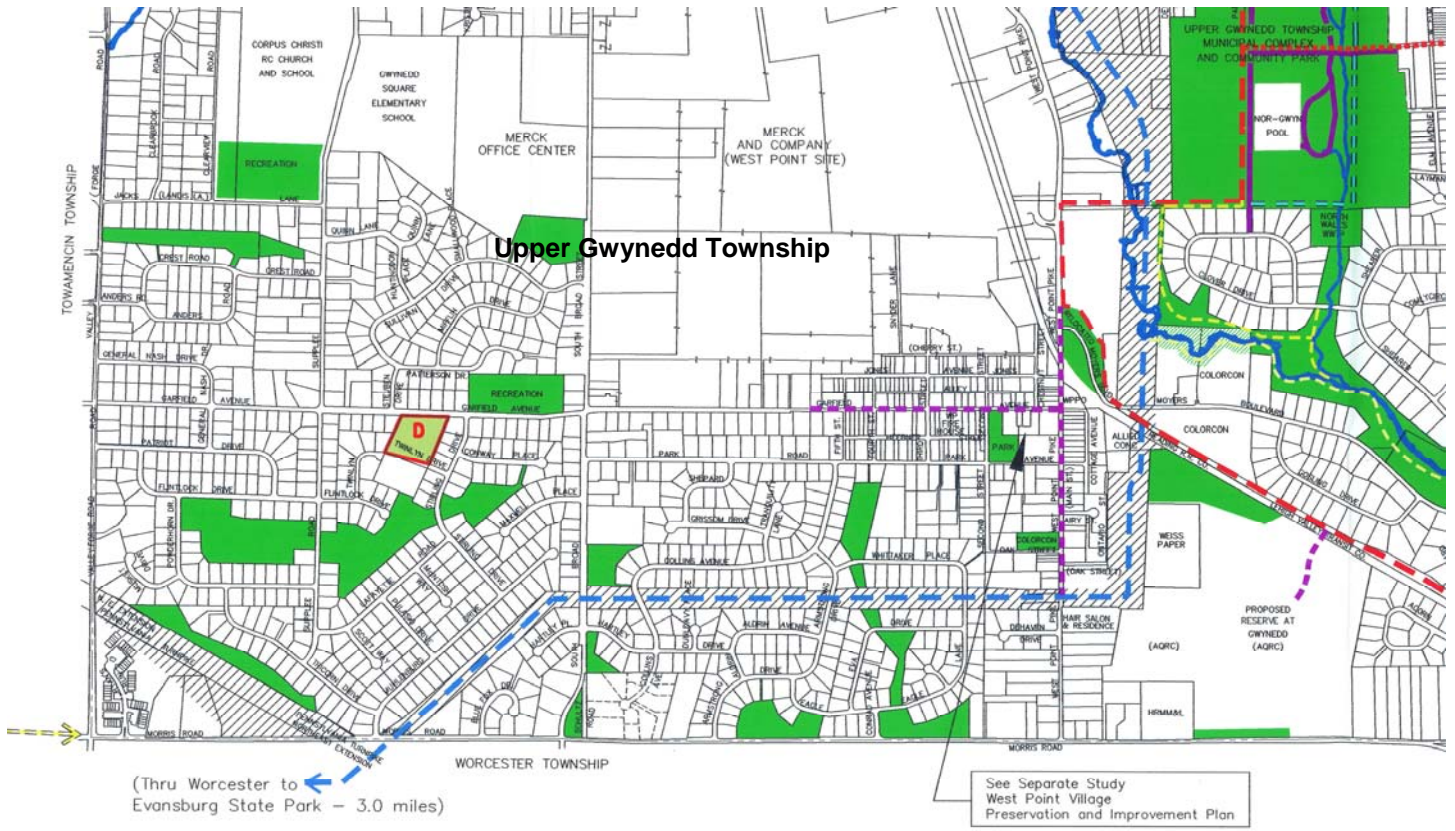
Photo: Bill McManus



A trail dedication marker for the Towamencin Trail near Trumbauer Road in Towamencin Township

Photo: Bill McManus

Figure 9 - 1
 Excerpt from Upper Gwynedd Township Trail Plan, southwest corner



(T O P I)



A segment of the Green Ribbon Trail in Upper Gwynedd Township

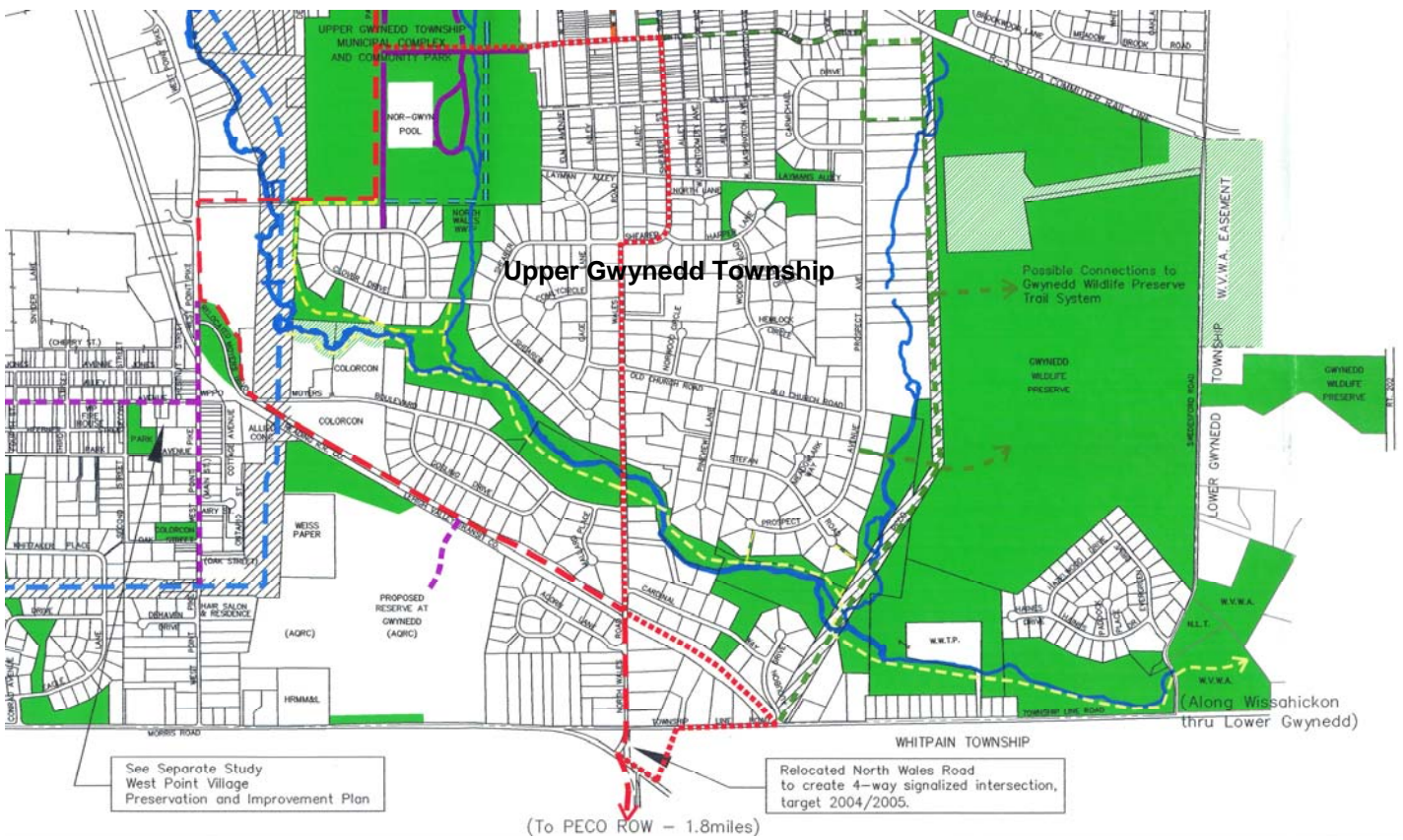
Photo: MCPC

UPPER GWYNEDD TOWNSHIP

Upper Gwynedd Township adopted an Open Space Plan in 1995 which recognized that three county trails were to cross the township, the Liberty Bell, Wissahickon (Green Ribbon), and Powerline Trails, and also planned for several local trails. Figure 9 - 1 shows the proposed alignment of the Powerline Trail (the dashed blue line) where it crosses from Upper Gwynedd Township into Worcester Township, and Figure 9 - 2 shows the proposed alignment of the Liberty Bell Trail (the dashed red line) where it crosses from Upper Gwynedd Township into Worcester Township.

Of the local trails, the only one that directly relates to Worcester Township is a trail that extends from the Worcester border along one of the upper reaches of the Zacharias Creek, crossing the future Powerline Trail, to Upper Gwynedd's Whittaker Park, a neighborhood park with playground equipment and a proposed basketball court and playing field. This trail meets Worcester Township on Morris Road between Berks and Bethel Roads. To connect to this trail, a crossing could be made where the creek passes under Morris Road. A safer alternative would

Figure 9 - 2
 Excerpt from Upper Gwynedd Township Trail Plan, southeast corner



be to cross Morris Road at the Berks Road traffic light. This would require Upper Gwynedd to ensure a safe connection from the creek to this intersection, and both townships would have to work with PennDOT to get a safe crossing at Berks Road. Worcester could then connect the trail back to the creek.

WHITPAIN TOWNSHIP

In 1995 Whitpain Township adopted their Open Space Plan. The recommendations of the plan focused on land acquisition. The implementation focused on land acquisition, tree planting, working with the Wissahickon Watershed Association, and historic preservation ordinances. The Recommendations Map not only showed the locations of the lands desired for acquisition, it also showed where trails could be provided.

A new Open Space Preservation Plan is currently being drafted. On the Recommendations Map (Figure 9 - 3), the new Stony Creek Sports Park is shown along North Wales Road. That park has been developed with some active recreation, including a regionally unique sports rink. The only non-vehicular connection to this valuable regional recreation asset is the regional Liberty Bell Trail, which is proposed to pass in front of the park, on the Worcester side of the road. A safe crossing will be needed at or near this park.

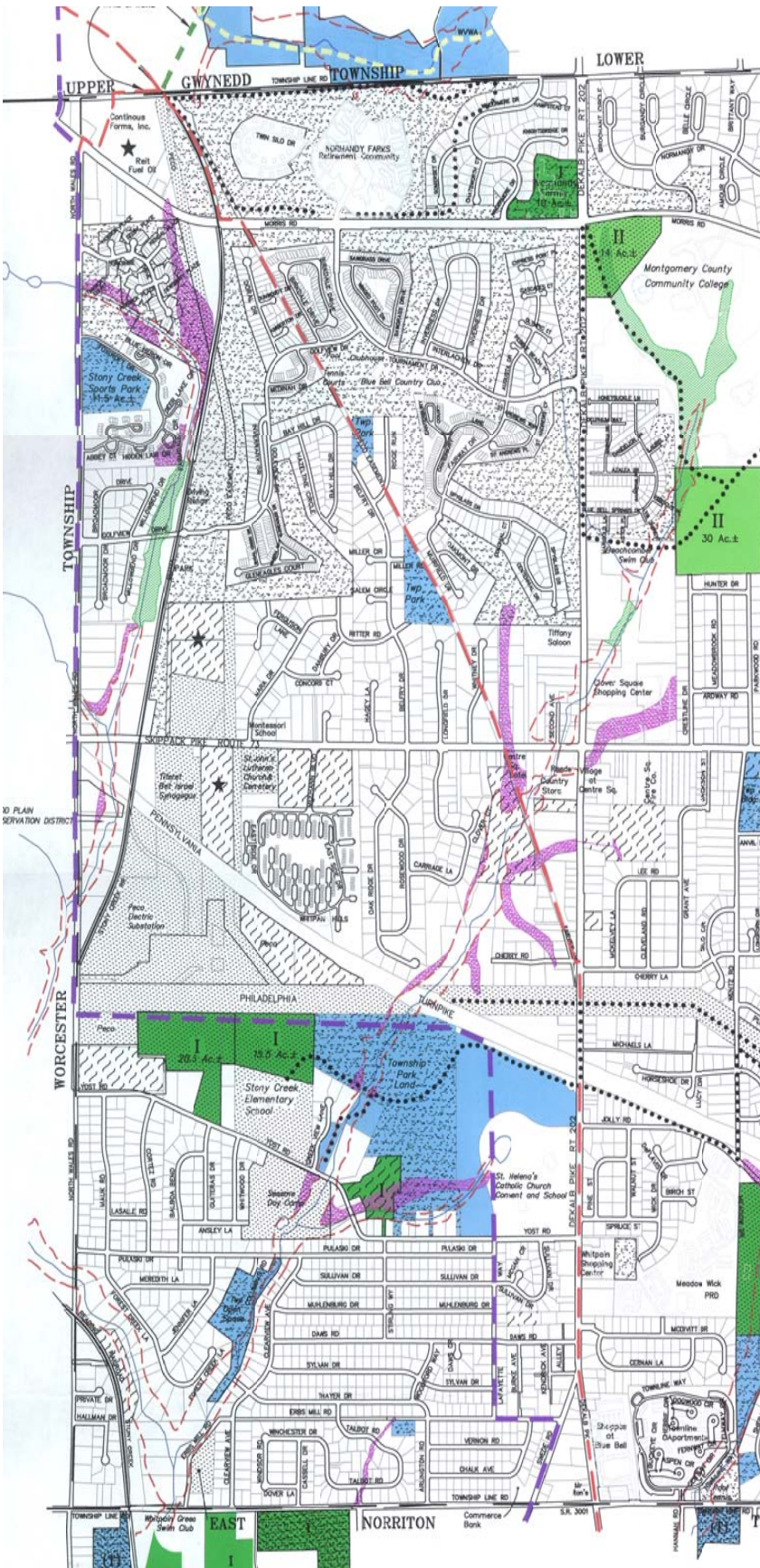
The Open Space Plan also discusses the County trails planned to traverse Whitpain Township. The Liberty



Naturalized headwater wetlands of the Stony Creek at Montgomery County Community College in Whitpain Township

Photo: MCPC

Figure 9 - 3
Excerpt from Whitpain Township Open Space Map



Stony Creek Sports Park in Whitpain

Photo: MCPC

Bell Trail is described as a concept by the County and the Delaware Valley Regional Planning Commission and as an inter-municipal trail. The current draft of the plan states, "Whitpain will cooperate with the adjacent townships of Worcester and Plymouth to implement a regional trail using the PECO right-of-way." The recommendations chapter includes the following note under "Time Frame": "coordinate with adjoining municipalities, request County funding approval."

The Wissahickon Green Ribbon Trail, which is not proposed to enter Whitpain Township but will be located very close to its northern boundary, is described as one which is to be implemented and maintained by the Wissahickon Watershed Association. The recommendations chapter includes the following note under "Time Frame": "coordinate with WWA."

Three other trails are described in the plan and also shown on the Recommendations Map. The closest of these trails is in the corner of Whitpain Township on and near Normandy Farms. This trail is proposed to be a 10-foot wide, paved, 1.7 mile loop. Another trail is proposed near Worcester Township. This trail is proposed to connect Wentz Run Park near the center of Whitpain Township through St. Helena's Catholic Church to Stony Creek Elementary School. Both of these trails come within one or two properties of Worcester. In addition, the Stony Creek Elementary School abuts the PECO lands that are now proposed to be used for the Liberty Bell Trail.

An "Open Space Update" in the recommendations chapter states, "Worcester has requested interconnections with Whitpain Township Trails: 1. Interconnect with horse trails adjacent to the Wissahickon Creek. 2. The placement of the Proposed Liberty Bell Trail along the west side of North Wales Road — Worcester will propose an interconnection in the

vicinity of the PECO right-of-way, and thus a connection south toward the Norristown Farm Park.”

EAST NORRITON TOWNSHIP

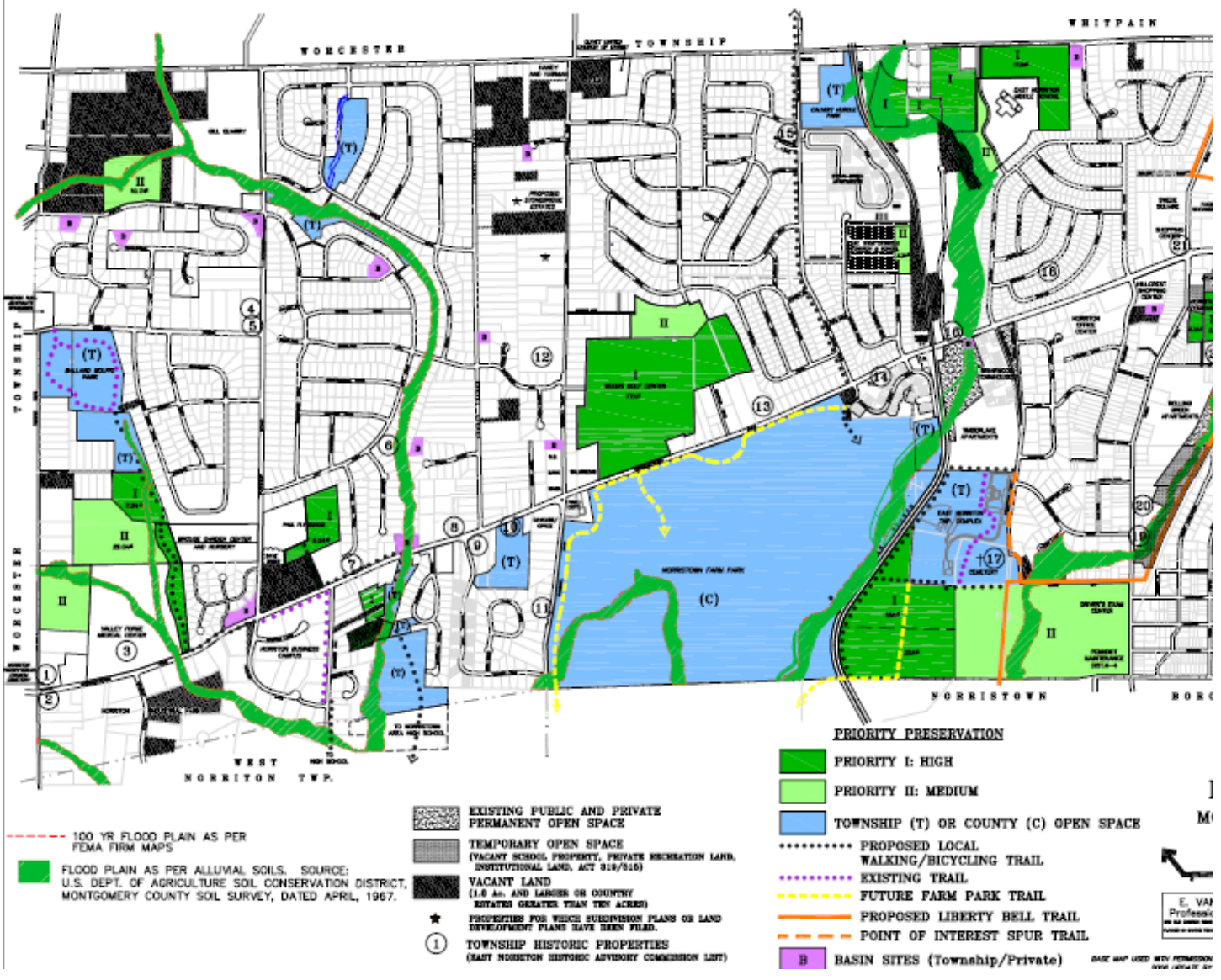
In 1995 East Norriton Township adopted its Open Space Plan. The recommendations of the plan focused on land acquisition. The implementation focused on land acquisition, tree planting, and historic preservation ordinances.

A new Open Space Preservation Plan is currently being drafted. According to the January 2006 draft, the Greenway Trails goal includes the objective to coordinate regional trail planning with the County and to identify and implement local trails as recommended on the map and in the trails chapter.

The Recommendations Map (Figure 9 - 4) shows an existing trail in Ballard Wolfe Park. The plan includes on page 9-9 a map from 2001 that indicates a short trail segment to Trooper Road to facilitate a connection by Worcester Township. The map from the open space plan also indicates the Township’s desire to create a trail from Ballard Wolfe Park to the Paul Fly Elementary School and then to the Norristown Area High School. East Norriton Township indicates in the plan it would like to acquire some properties along this trail route. The Township would also like to acquire a 10-acre area of the large vacant property adjacent to Worcester along Trooper and Township Line Roads.

The map also indicates a proposed local walking / bicycling trail along North Wales Road connecting

Figure 9 - 4
Excerpt from East Norriton Township Open Space and Trail Plan Map



Worcester Township to the Norristown Farm Park, a major regional recreation destination. This trail has apparently been added to the plan after considering a request for the linkage from Worcester Township.

WEST NORRITON TOWNSHIP

West Norriton Township adopted an Open Space Plan in 1995. Information about the new open space plan being developed is not yet available.

The 1995 plan was primarily intended for land acquisition and had no references to its neighbors.

LOWER PROVIDENCE TOWNSHIP

Lower Providence Township adopted an Open Space Plan in 1995. Lower Providence is also preparing an update to their plan. The January 2006 draft includes a goal to preserve two parcels adjacent to and crossing into Worcester Township, the Cicchello property and two Harleysville National Bank (HNB) properties (see Figure 9 - 5). The Cicchello property is intended for farmland preservation and one of the HNB properties is intended for acquisition to expand Eskie Park. The other HNB property is in Worcester Township. In both cases,

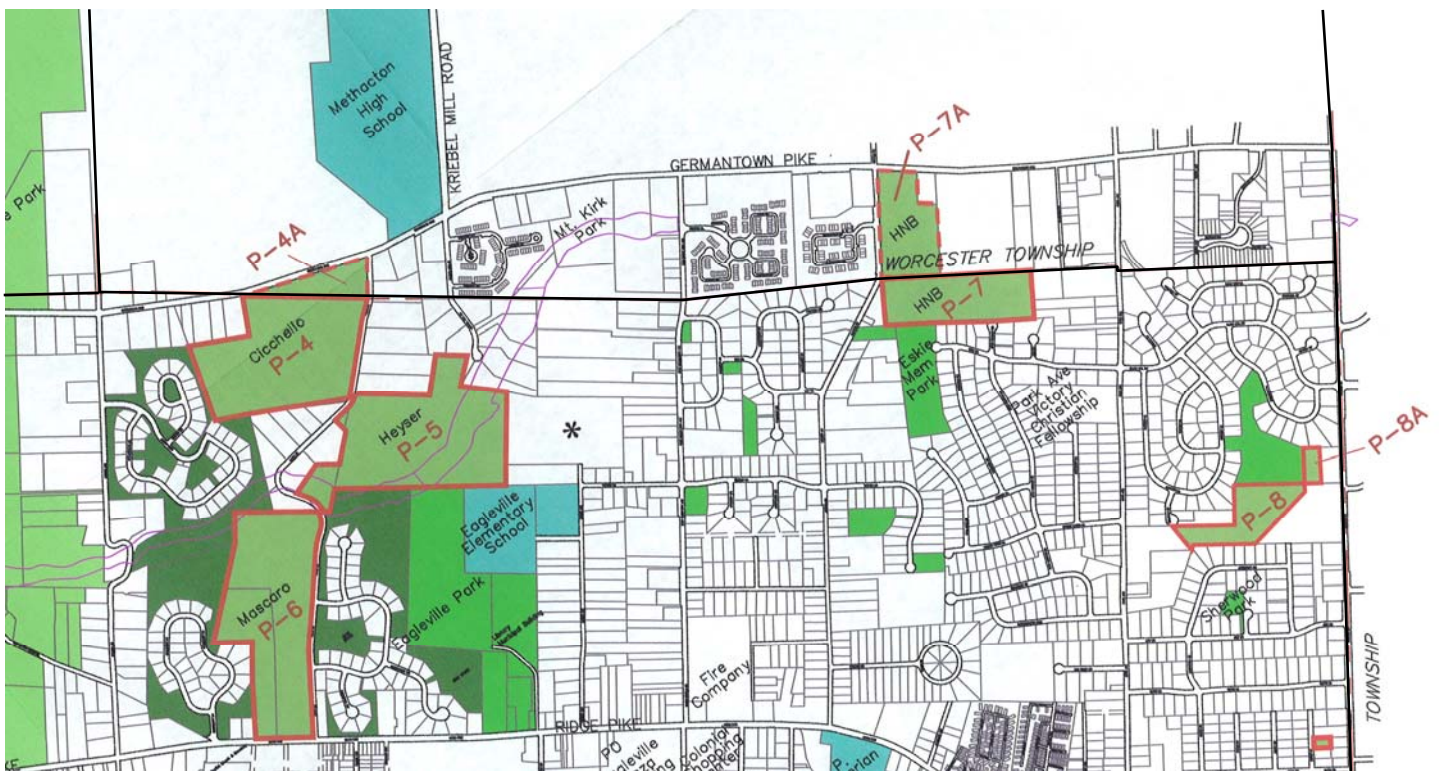
the plan indicates a potential for a “joint opportunity with Worcester Township.”

Another goal is to “strive to preserve agriculture.” The objectives for this goal include: “the Township should form an agricultural security area or become part of an existing area in a nearby municipality.” While not specifically mentioned in Lower Providence’s plan, Worcester’s ASA could be a good solution for this objective.

The plan also includes a goal to protect the historic resources and cultural landscapes in the Evansburg Historic Village and surrounding area. One of the objectives for this goal is to encourage the State to “expand State Park boundaries in the vicinity of Evansburg Village to help preserve historic resources and open space.

In addition, the Trail Plan map includes three potential trail linkages to Worcester (see Figure 9 - 6): to the high school along Kriebel Mill Road, to Mt. Kirk Park, and through the HNB properties.

Figure 9 - 5
Excerpt from Lower Providence Township Open Space Map, northern edge





Northwesterly view of Cicchello property from Smith Road Photo: E. Van Rieker, AICP



Area near the Cicchello property Photo: Pictometry

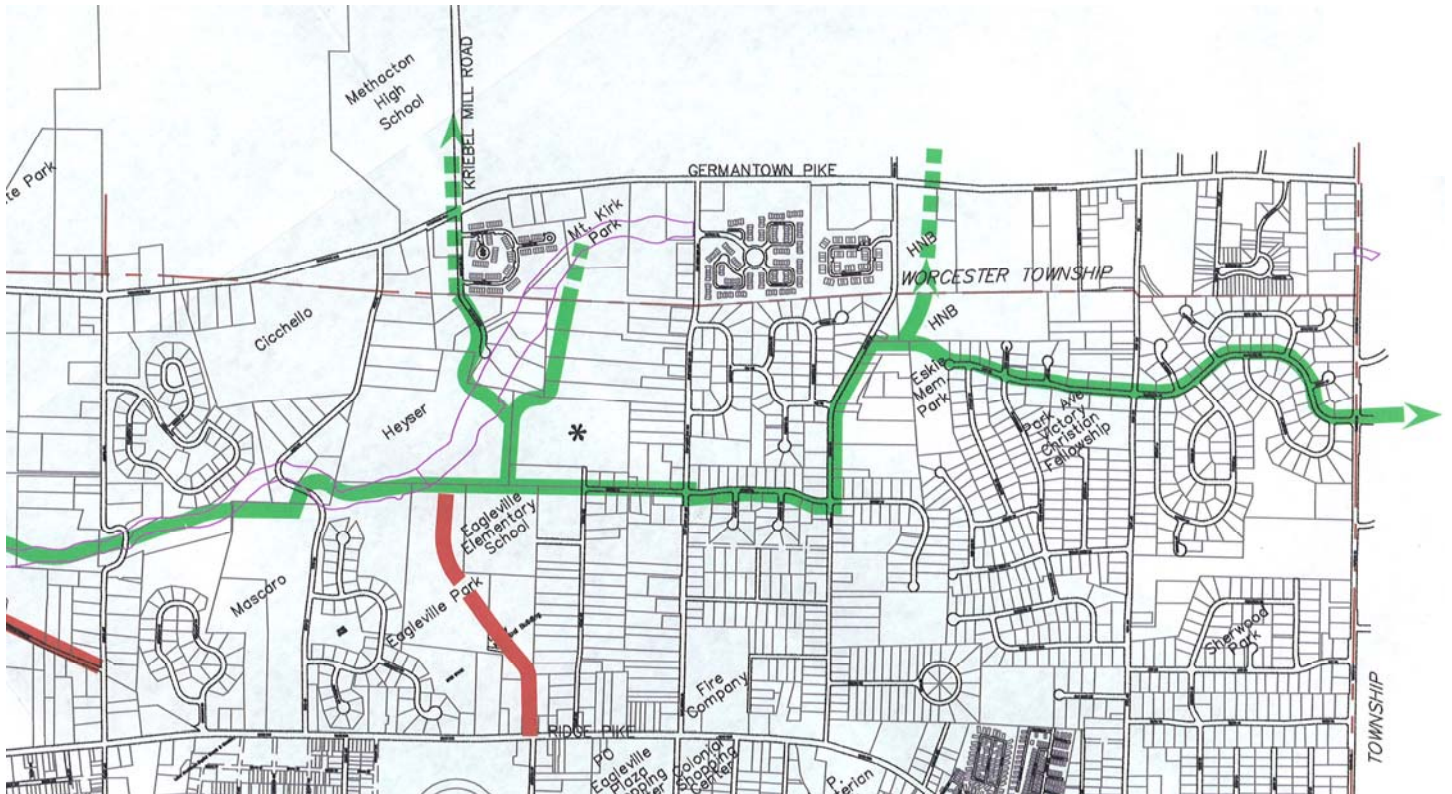


Northerly view of HNB property from edge of Eskie Park Photo: E. Van Rieker, AICP



Area near the HNB properties Photo: Pictometry

Figure 9 - 6
Excerpt from Lower Providence Township Trail Map, northern edge



RELATION TO OTHER PLANS

1995 WORCESTER TOWNSHIP COMPREHENSIVE PLAN AND 2006 UPDATE

The goals and objectives of the original plan and the update are similar to the ones expressed herein. The Update will be completed shortly after this plan and will incorporate a summary of this plan in the Open Space chapter.

WORCESTER TOWNSHIP COMMUNITY GREENWAY PLAN

Worcester Township's Community Greenway Plan was completed in May 2004. This plan identified two levels of off-road trail systems that could be provided in the township: multi-use trails and hiking/equestrian trails. The multi-use trails were proposed to follow the PECO powerline lands across the center of the township, from the Skippack border to the Whitpain border, across the northern corner of the township, and from Berks Road to the northern section of the township (the red dashed lines in Figure 9 - 7). The hiking trails were proposed to follow most of the Zacharias Creek and a few of its tributaries as well as one of the tributaries of the Skippack Creek, and also to extend along a few roads into Fairview Village.

A third category of linkages was proposed which is not intended for human access, but rather to facilitate natural resource protection. "Restricted Riparian

Lands" were identified as important because of their habitat and natural resource benefits, but no trails or public access were proposed.

CREATING AN OPEN SPACE SYSTEM, WORCESTER TOWNSHIP

This plan was prepared for Worcester Township in the fall of 2000. The goals and objectives of this plan are similar to the ones expressed in this Open Space Plan.

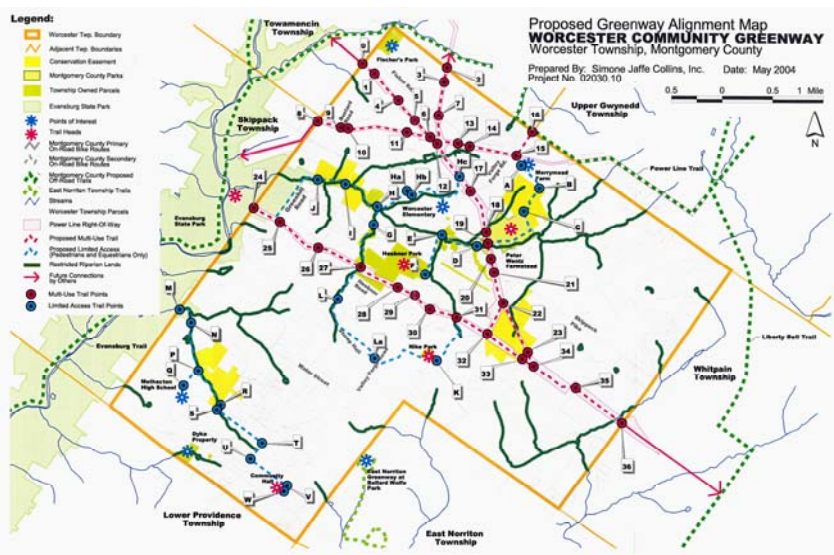
LOWER PERKIOMEN CREEK WATERSHED CONSERVATION PLAN

This plan, which is expected to be completed in 2006, applies to the Skippack watershed in the township including the Zacharias Creek subwatershed. Preliminary drafts show that this plan will address the future management of groundwater resources. Implementation of this plan could be funded by the Pennsylvania DCNR.

SUMMARY

Most of Worcester's neighbors, the county, and other local organizations would like to work with Worcester to accomplish some of their own as well as regional open space goals. By working with them, Worcester, too, can accomplish some of its own open space goals, such as connecting to Evansburg State Park, Norristown Farm Park, the Gwynedd Wildlife Preserve and equestrian trails to Fort Washington.

Figure 9 - 7
Worcester Community Greenway Plan





Merrymead Farm

Photo: Scott Rothenberger

CHAPTER 10

AGRICULTURAL LAND PRESERVATION

In Chapters 4 and 6, the presence of prime agricultural soils was seen to be a key factor in the identification of priority areas for natural resource preservation. However, given the importance and vulnerability of agricultural land in Worcester Township, a more detailed analysis of important agricultural land is appropriate. In 2005, agricultural land uses in the township occupied about 3,000 acres (30 % of the township), which is second only to residential land uses (42 % of the township). In addition, the conversion of agricultural land to other land uses has contributed to a loss of 36% percent of the land

that in 1992 was either agriculture, water, undeveloped or unspecified uses. This additional analysis will highlight priority agricultural land for preservation through federal, state, county and township farmland preservation programs.

IMPORTANCE OF AGRICULTURAL LAND

Prime agricultural soil and productive agricultural land are limited resources that take thousands of years to develop. Yet across Pennsylvania and in Worcester Township, these lands are quickly being converted to other land uses, primarily residential.

Figure 10-1
State Farmland Quality and Threat

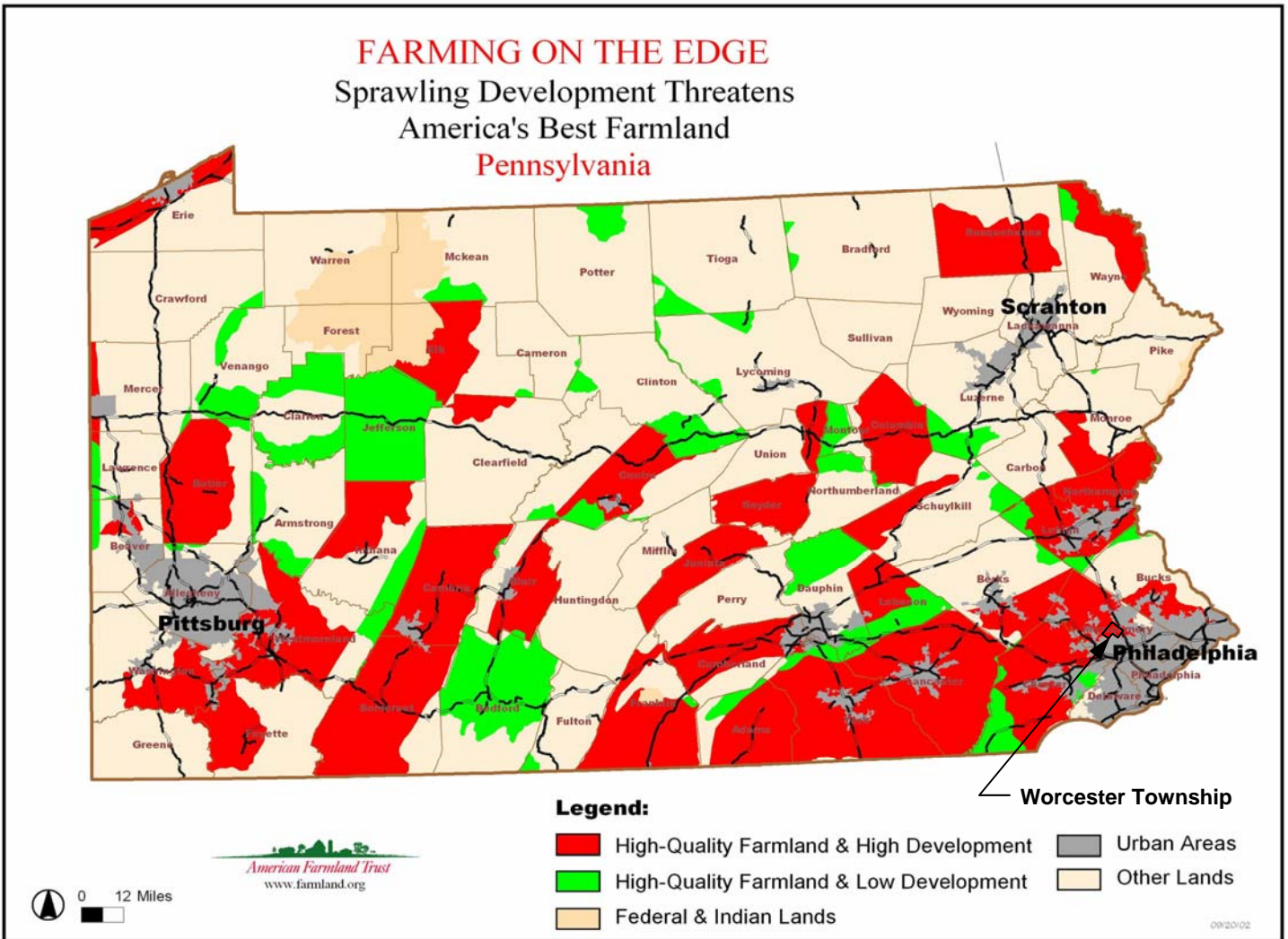


Figure 10 - 1 depicts those areas in Pennsylvania with the highest quality farmland which also are experiencing the highest rates of development. Worcester Township falls into this critical area, indicating the importance of acting now to preserve important agricultural lands.

In addition to agriculture's most important function, food production, there are other important benefits of farming. The American Farmland Trust's January 2003 Fact Sheet, "Why Save Farmland?" highlights the following three benefits of protecting agricultural lands:

Environmental Quality

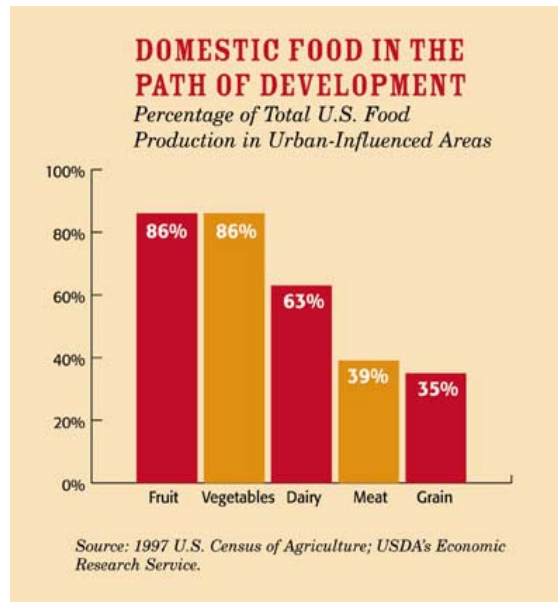
Well-managed agricultural lands help control flooding, protect wetlands and watersheds, maintain air quality, and provide groundwater recharge and wildlife habitat.



A Worcester farm with environmental benefits

Photo: MCPC

Figure 10 - 2
Domestic Food in the Path of Development



As agricultural land becomes developed, water pollution and flooding increase. Paved roads and roofs pass stormwater directly into drains instead of naturally filtering it through the soil. Development is also a significant cause of wetlands loss.

Keeping land available for agriculture while improving farm management practices offers the greatest potential to produce or regain environmental benefits while minimizing negative impacts.

Fiscal Stability

Agriculture contributes to local economies directly through sales, job creation, and support services and businesses, as well as by supplying lucrative secondary markets such as food processing.

Development imposes direct costs on communities, as well as indirect costs associated with the loss of rural lands and open space. Privately owned and managed agricultural land generates more in local tax revenues than it costs in services.

Community Character

Sometimes the most important qualities are the hardest to quantify, such as local heritage and sense of place. The managed spaces of agricultural land provide beautiful views and opportunities for fishing, horseback riding, and other recreational activities. Farms create an identifiable and unique community character and add to the quality of life.



Pumpkins ready for harvest at Merrymead Farm

Photo: Scott Rothenberger



A horse in pasture along Kriebel Mill Road

Photo: MCPC

Farming has been a defining aspect of Worcester Township since its founding days. From self-sufficient farms to dairy, poultry, and feed crop production farms, Worcester has always been recognized for its superior agricultural productivity.

The preservation of agricultural lands locally can continue to provide us with a safe, fresh, and high-quality food supply. Figure 10 - 2 indicates that 86% of U.S. fruits and vegetables and 63% of our dairy products are produced in urban-influenced areas.

Worcester Township is home to two of Montgomery County's largest and oldest working farms. Merry-mead Farm, a dairy farm of over 100 acres located on Valley Forge and Morris Roads, is known throughout the area for its school tours, fall harvest festival activities, and farm store featuring ice cream and local produce as well as the farm's dairy products. Heebner Farm, located on Heebner, Hollow, and Stump Hall Roads in the western part of the township, was recognized in the early 2000s as a Pennsylvania Century Farm because it had been farmed by the same family for over 100 years. Shortly afterward, the farm changed hands and is now farmed by the Smith family, who have chris-

tened it Willow Creek Orchards and proceeded to transform the more than 100 acres of cropland into Montgomery County's first certified organic farm. The recently established farm market features pick-your-own organic fruits as well as farm-grown and local produce. These two working family farms are indicative of Worcester's farming roots and Worcester's farming future.

THE VALUE OF HORSE FARMS

Today a significant portion of Worcester's farmland is used for horse farms. Pennsylvania's \$5 billion equine industry has become the state's most valuable agricultural product, and Pennsylvania has one of the largest equine industries in the United States. Horse farms are a significant feature in Worcester. There are at least 25 horse farms in the township, and until recently, at least one of these farms produced almost one hundred foals per year.

Not only are horse farms an important part of the economy, they also provide significant quality of life benefits, including recreational and sports opportunities for many township and nearby residents.

Other quality of life benefits are their contributions to visual open space and community character. Well-managed horse farms also protect valuable natural habitat, provide areas for groundwater recharge, and protect water quality in our streams. Both large and small horse farms can also function as a cost-effective means of preserving farmland from development.

STATE, COUNTY, AND FEDERAL AGRICULTURAL PRESERVATION PROGRAMS

There are at least four permanent preservation programs available to Worcester's farmers who would like to preserve their land and farming livelihood in the face of economic and social pressures. One is federal, one is state and is administered by the County, and two are County programs. Three of these programs are based on the structure set up by the state program (Act 43 of 1981), which uses the expertise and knowledge of county-resident Farm Board members to prioritize the farms and to decide how to distribute the available funds.

STATE FARMLAND PRESERVATION PROGRAM

The Pennsylvania State Farmland Preservation Program is a state program administered at the county level by a County Farm Board. Farmers apply to sell

their development rights to the State and County. This is done with an agricultural conservation easement. Under this conservation easement, the farmer retains ownership of the property but permanently gives up the right to use it for anything other than farming. Once established, the easement restrictions apply to anyone purchasing or inheriting the land in the future. The program pays farmers the appraised value of the development rights on the farm.

All applications are scored based on a number of factors established by the State, including the amount of the land to be preserved, quality and management of soils, proximity to other preserved farms, and threat of development. These farms are scored and then ranked, and the Farm Board decides which ones are to be appraised and then finally which applications to recommend to the State for purchase of the development rights. The purchases are funded with a combination of state and county money. In the past, Montgomery County's annual farm preservation budget has ranged between \$3 million and \$5 million dollars. At the current cost of development rights in the county, that amount could save between 75 and 200 acres of farmland every year.

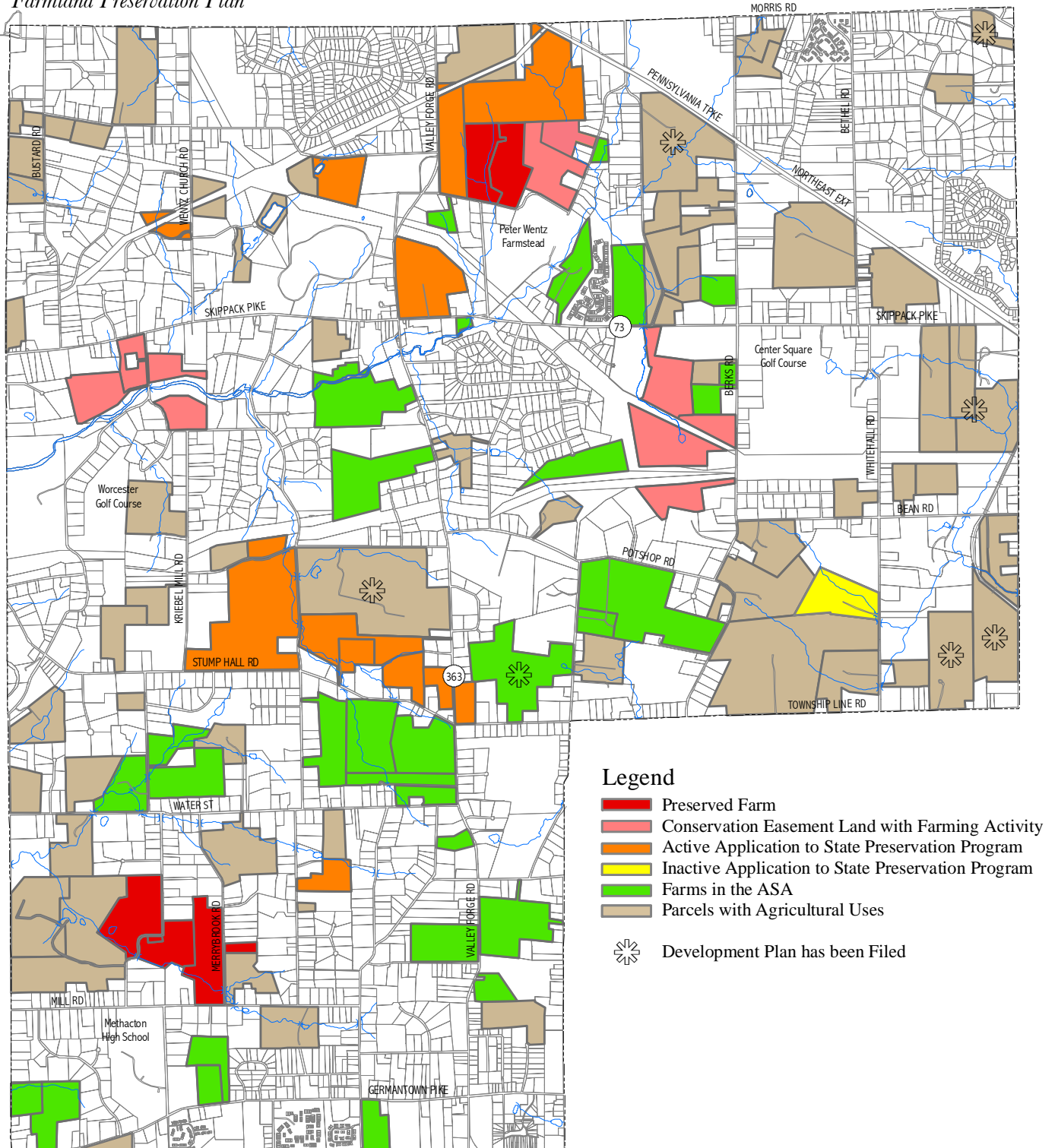
Worcester Township currently has three farms, totaling 143 acres, that have been preserved under this program and nine additional farms, totaling 403 acres, that have applied to this program.



Panorama over farmland from Valley Forge Road

Photo: MCPC

Figure 10 - 3
Farmland Preservation Plan



- Legend**
- Preserved Farm
 - Conservation Easement Land with Farming Activity
 - Active Application to State Preservation Program
 - Inactive Application to State Preservation Program
 - Farms in the ASA
 - Parcels with Agricultural Uses
 - ✳ Development Plan has been Filed

MCPC Montgomery
County
Planning
Commission

0 1,600 3,200 6,400 Feet
Base map prepared January 2006

Montgomery County Courthouse - Planning Commission
PO Box 311 ▪ Norristown PA 1904-0311
(p) 610.278.3722 ▪ (f) 610.278.3941
www.montcopa.org/plancom

This map is based on 2000 ortho photography and official sources. Property lines were compiled from individual block maps from the Montgomery County Board of Assessment Appeals, with no verification from the deed. This map is not meant to be used as a legal definition of properties or for engineering purposes.



A view across the Smith Farm on Fisher Road

Photo: Susan Caughlan

COUNTY "NON-TRADITIONAL" FARMLAND PRESERVATION PROGRAM

This farmland preservation program was established by the County to help preserve farms that are valuable to the County but would not have been preserved with the State program. It attempts to focus on farmland that is not eligible for the State farmland preservation program.

This program is also administered by the County Farm Board and differs from the State program as follows:

- ASA membership is not required.
- There are no minimum agricultural soils requirements.
- There is no minimum farm size.
- Public access, such as public trails, may be requested to be provided on the farm.
- The farm should be indicated on the Future Land Use Plan of the County Comprehensive Plan as an agricultural use.

This program is still new, and the County has just begun to use it. However, several million dollars could be available under this program.

COUNTY OPEN SPACE PROGRAM FARMLAND PRESERVATION OPTION

The 2003 Montgomery County Green Fields/Green Towns Open Space Program allows a portion of the municipal allocation under this program to be used for farmland preservation. Through this program, up to \$448,000 of Worcester's allocation could be available to Worcester Township for farmland preservation, with the requirement that 20% of the purchase amount be provided by the Township or another non-county source.

This farmland preservation option was established by the County to help preserve valuable farmland which otherwise could be lost to development. It attempts to help preserve farmland that is not eligible for the State farmland preservation program.

This program is administered by the County Open Space Board and is conceptually intended to preserve farmland that contributes to a community's open spaces. Compared to the previously mentioned programs, some of the rules are different in order to allow the preservation of farms that are valuable to the county but would not have been preserved with the State or the County "Non-traditional" program.



Palmer Farm from Valley Forge Road

Photo: Susan Caughlan

The most significant differences are:

- The application is made by the municipality.
- ASA membership is not required.
- There is no minimum agricultural soils requirement.
- There is no minimum farm size.
- Public access, such as public trails, may be requested to be provided on the farm.
- The farm should be indicated in the municipality's Open Space Plan as a farm to be preserved.

Worcester Township has designated all the agricultural land in shown in Figure 10 - 3, whether an applicant to the other programs or not, as farmland to be preserved.

FEDERAL FARMLAND PRESERVATION PROGRAM

The federal program is similar to the state program, but the funds are provided on a reimbursement basis. In other words, the County has to first purchase the development rights and then apply to the program for reimbursement of funds already expended. This is a risk to the County. Nevertheless, many thousands of acres of farmland are preserved nationwide every year with this program.

POTENTIAL WORCESTER TOWNSHIP FARM PRESERVATION PROGRAMS

The following programs do not yet exist but are suggested here as an outline of possibilities for the Township. This plan suggests that these programs be evaluated by the Township to determine if they are appropriate and possible for Worcester.

AGRICULTURAL LAND ANALYSIS FOR PRESERVATION

BEST FARMS FOR FUNDING

All these programs use similar criteria for determining the most valuable farmland for preservation. Figure 10 - 3 shows all the farmland currently in the township. But, which of these 3,000 acres of farmland would best qualify for the federal, state or county funds? The Township has calculated the scores of some of the farms based on the various scoring criteria for each program. The Township may want to update and expand this information to include all the farmland and then approach the top-scoring farmers and encourage them to apply to the appropriate preservation program.

TOWNSHIP AGRICULTURAL LAND PRESERVATION

Farmland preservation under the State Farmland Preservation Program leverages state money with county funds and is therefore required to conform with specific procedures and eligibility requirements. A township preservation program, however, would not be subject to the same requirements.

The township may want to preserve farms that have additional attributes, such as historic resources, an important link in the township trail system, or sensitive natural resources. None of these factors is con-



A Worcester horse pasture

Photo: Susan Caughlan

considered in the State scoring. The Township has conducted an analysis that considered these and other factors, resulting in identification of the farms that are the most important to the Township. If any of these farms also score high in the State program, then the township may want to encourage these farmers to apply to the State program.

If the Township identifies farms that are valuable to the Township but not likely to receive funding from the State, the County, or other sources, the Township may want to use township funds to purchase a conservation easement. For this reason, an analysis that includes township values would be very useful.

NON-ACQUISITION METHODS

Other methods to preserve farmland include regulatory options, such as zoning and subdivision ordinances that encourage and support farming uses, roadside stands, farm markets, and farming support services. Conservation subdivision is another important tool that can preserve some farming activity even when land is developed.

In addition to helping determine acquisition priorities, the analysis described in the previous section, Township Agricultural Land Preservation, can also be used to determine which properties should be targeted for preservation of farming activity if they are developed. Not only can the preserved open space within the conservation subdivision continue to be used for agricultural purposes, the conservation subdivision process can also protect large blocks of agricultural lands by connecting preserved farmland from adjacent subdivisions.

Another non-acquisition method is to provide incentives to preserve farmland. Tax incentives already exist, but other financial incentives, either provided by or facilitated by the Township, may be possible.

Economic methods might also help preserve farmland. When farms can be more economically viable, they are less likely to be lost to development. Increased revenues and/or decreased costs will improve the economics for a farm. Additional revenues might be possible with certain programs initiated or supported by the Township, such as farm markets, farm tourism, co-ops, education, and marketing.



Field at the Gerstemeier Farm

Photo: Susan Caughlan

SUMMARY

Since farmland preservation is a very high priority in Worcester Township, as well as for the County and State, every effort should be made to preserve as much farmland in the township as possible.

This chapter identifies the agricultural lands that can be preserved in the township and the framework that can determine which farmland is the most valuable for preservation.



Panorama over the former Kumpf / Bell farm (now under development for housing) from Woodlyn and Trooper Roads; all buildings were demolished

Photo: MCPC



A narrow meadow in the Zacharias Creek corridor near Green Hill Road

Photo: MCPC

CHAPTER 11

TOWNSHIP TRAIL AND GREENWAY DEVELOPMENT

The potential open space linkages identified in Chapter 5 form the basis for a township-wide path and greenway network. As mentioned, paths and greenways can take many forms and can be more or less easily accomplished as short- or long-term goals. This chapter will attempt to put together a strategy to accomplish as much of a trail and greenway network as possible as soon as possible and also lay out some longer term possibilities.

TRAIL PLAN GOALS AND OBJECTIVES

One of the Township's goals is to develop a network of parks and trails to connect within the township and to other trail systems throughout the county. This is to be accomplished by the following tasks:

- Identify destinations and linkages in the township and in neighboring townships and identify strategies to implement these linkages.

- Consider developing a recreation facilities plan.
- Consider a park and recreation fee ordinance.
- Enact a trail ordinance requiring developers to provide trails.

Figure 5 - 2 in Chapter 5 identifies destinations and potential linkages in and around the township. Strategies to implement these linkages will be discussed below. The implementation chapter indicates the timetable for these strategies.

Upon adoption of this Open Space Plan and a recreation facilities plan, the Township would be able to enact a park and recreation fee.

This plan and any subsequent more detailed trail plan could provide the basis for the enactment of a subdivision and land development ordinance that would require developers to provide trail segments through, around, or adjacent to their land development, as appropriate.

TYPES OF TRAILS AND GREENWAYS

2004 WORCESTER TOWNSHIP COMMUNITY GREENWAY PLAN

This section will further the efforts of the 2004 Worcester Greenway Plan. That plan proposed a total of 8 miles of pedestrian/equestrian trails, 11 miles of multi-use (paved plus equestrian) trails, and 25 miles of restricted riparian lands. Figure 11 - 1 shows the proposed alignments of these trails. The plan is a 10-year vision for these “greenways.”

The type of trail or greenway will depend on its purpose and location. There are five types: greenways, off-road facilities, sidewalks, on-road facilities, and combination facilities. Destinations, crossings and the type and number of users will help to determine the kind of trail or greenway to be provided.

GREENWAYS

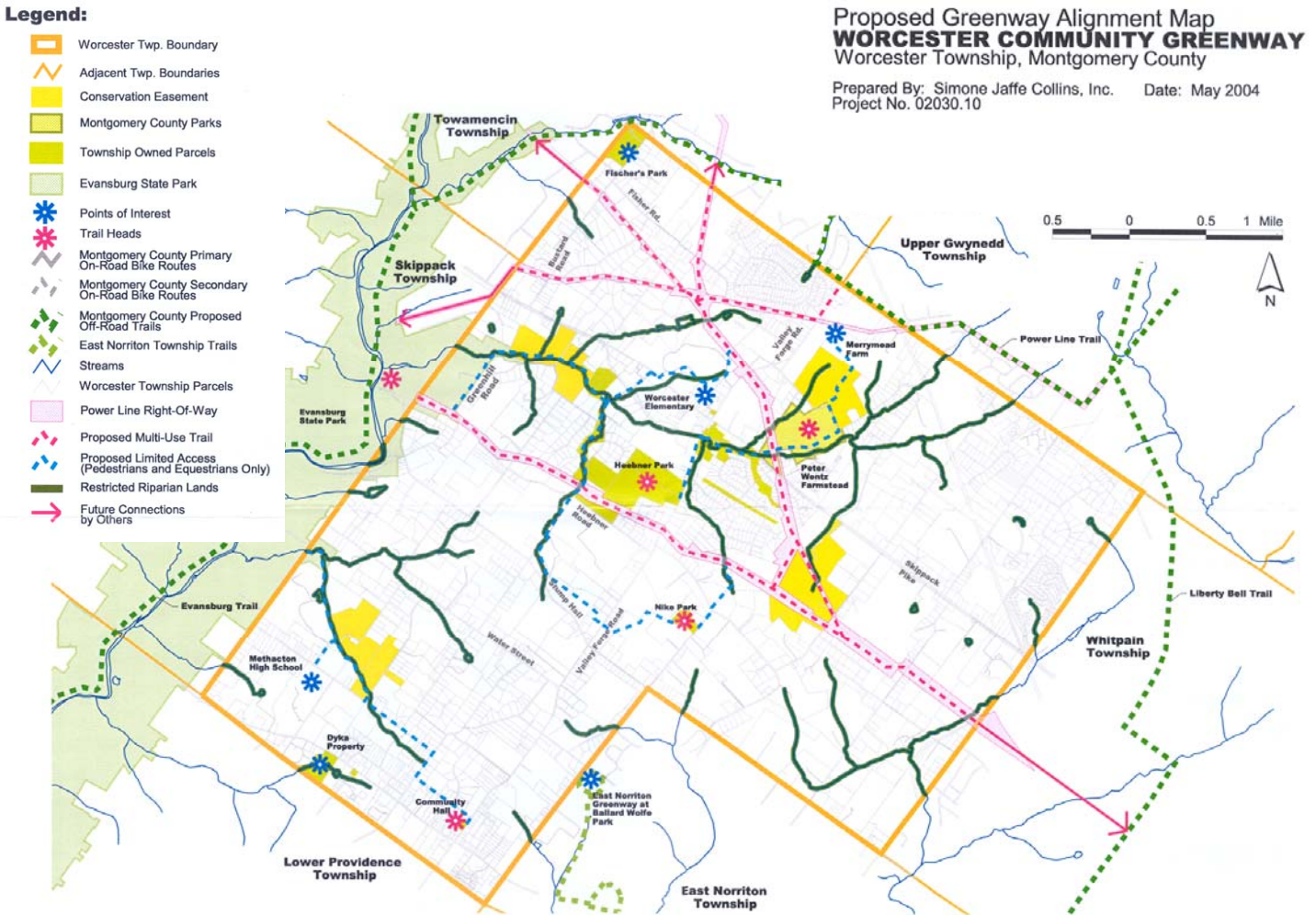
Greenways can simply be natural areas that are linked to each other, creating a linear arrangement. Most often these run along or include waterways,



Zacharias Creek Greenway near Green Hill Road

Photo: Pictometry

Figure 11-1
2004 Proposed Greenway Alignment



but they can be accomplished anywhere there are connected natural resources. The usual purpose of greenways is to preserve natural habitat and facilitate the movement of animals which is necessary for their daily and lifecycle needs and, ultimately, for their survival. Greenways can also include various facilities for human travel and observation. Care should be taken, however, that the human facilities do not substantially diminish the function and quality of the natural habitat.

OFF-ROAD FACILITIES

Generally, the least intrusive kind of trail is the footpath. Footpaths can be dirt or grass-covered paths through grasslands, along creeks, or through woods. These paths are suitable only for very light use and can easily degrade due to erosion. They can be impassable when they are too wet and muddy. Sight lines are often very short, curves

sharp, and surfaces bumpy and slippery, making these trails sometimes dangerous for users. However, this array of conditions is just what attracts some "mountain" bikers. Therefore, these trails should not be used to connect destinations that would attract more than a few users each day. In addition, maintenance of these trails can be an ongoing concern.

Another type of unpaved trail is the equestrian trail. A footpath can be used as an equestrian trail, but a wider path area would be needed for riding side-by-side. A certain amount of riding on a trail may make that trail surface too rough for use by hikers. Therefore, depending on the amount of use for horseback riding, sometimes a trail needs to be constructed with a special area for equestrians, or a separate trail needs to be provided.

A multi-use trail is intended for as many types of users as possible, so that many residents can enjoy

and receive the benefit of the public investment in the improvements. Typically, this kind of trail is paved and is at least 8 feet wide, which allows for walking, jogging, biking, roller blading, and similar non-motorized activity. The paving is usually asphalt, but it could also be crushed gravel or other materials that would be suitable for higher traffic volumes of a variety of users and for low maintenance. If the trail is not on public land, it is usually located in a public access easement, which should be 20 or 30 feet wide to allow maintenance of a shoulder area and some flexibility in location or for culverts, fences, and other small constructions.

SIDEWALKS

The most common pedestrian facility is the sidewalk. Even though it is not literally on the road, it is always so close to the road that it is sometimes considered an on-road trail element. Most residential streets are best served with sidewalks. Sidewalks are usually 4 or 5 feet in width and can handle a variety of users. Because of today's large, high-speed vehicles, traffic congestion, and cut-through traffic, it is recommended that sidewalks be located at least 4 to 5 feet from the curb or edge of the road. This

also allows an area for snow plows to pile up snow in the winter without blocking the sidewalk.

Outside residential developments, sidewalks may sometimes not be suitable. They are not suited for bicycles that are going farther than a few houses away, nor are they suited for other methods of travel, including horses. Depending on the nearby uses, destinations, traffic volumes, variety of users, and distances involved, another kind of trail may be necessary. Due to their somewhat limited capacity and the few types of users, sidewalks are suited as township trail segments only when they make connections that would otherwise be impossible.

ON-ROAD FACILITIES

In its 1998 Bicycle Mobility Plan, Montgomery County indicated which roads make sense as part of a county-wide bicycle transportation network and prioritized them as primary or secondary routes. This plan is a recommendation and is intended to guide State, County, and Township decisions when there are opportunities to provide bicycle facilities. It also indicates what types of facilities are appropriate for various traffic volumes, speeds, and layouts.

Figure 11-2
Bicycle Routes Recommended in Montgomery County's Bicycle Mobility Plan (1998)

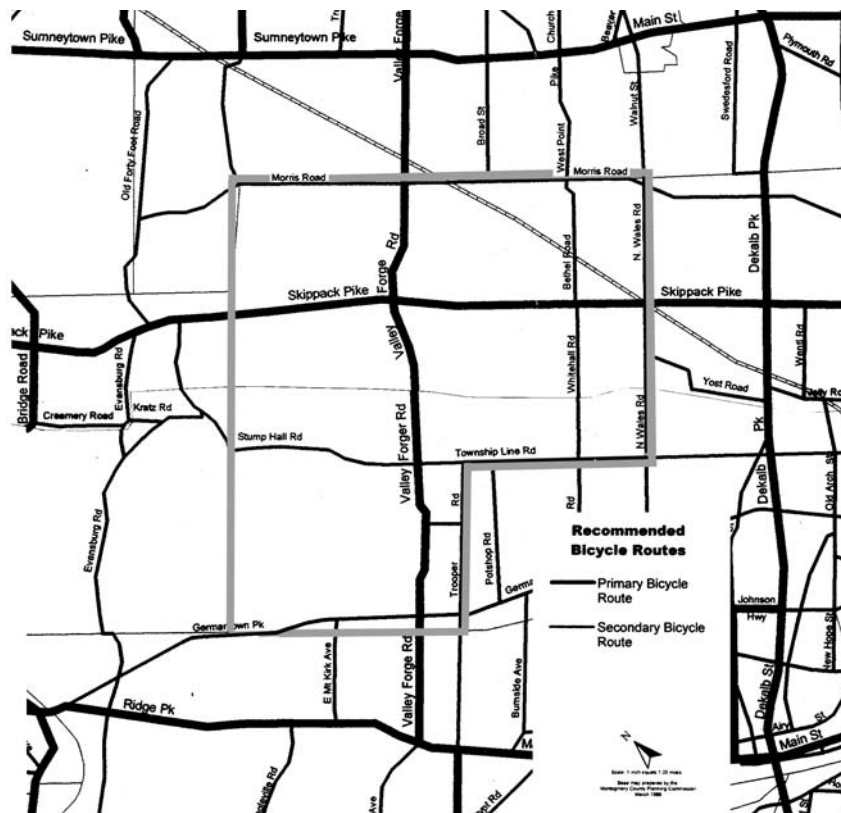
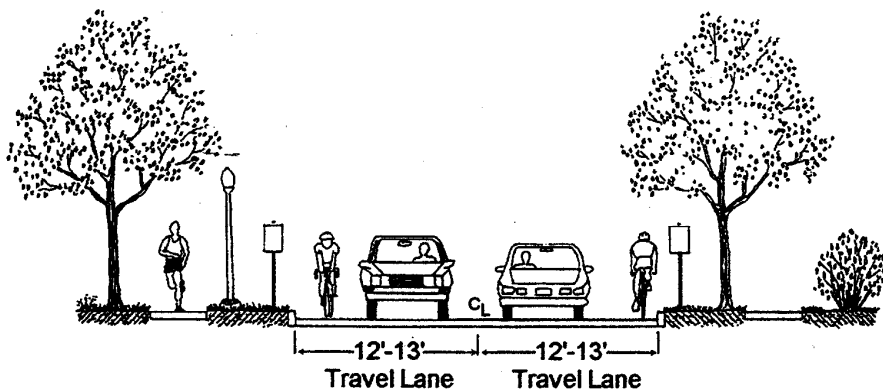


Figure 11 - 2 is a segment from that plan showing Worcester and surrounding areas. According to that plan, the primary routes should be suitable for all types of bicycle riders and should be provided with facilities that range from 6-foot bike lanes to 4-foot or 8-foot shoulders, depending on local conditions. The secondary routes should also be suitable for all types of bicycle riders but should be provided with equal or only slightly less accommodating facilities that range from 12-foot-wide shared lanes on low-volume, low-speed rural roads to 6-foot shoulders on higher volume, higher speed roads, depending on local conditions. While these are county-wide recommended standards, individual municipalities can, upon careful consideration, upgrade these standards on a case-by-case or street-by-street basis.

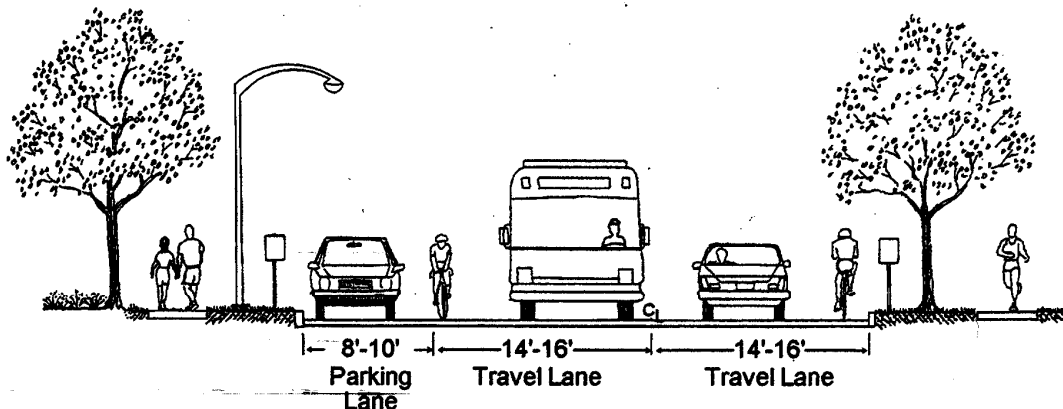
One of the simplest on-road facilities is the wide shoulder. Due to the lack of separation from traffic, this is really suited only for vehicles like bicycles and scooters, and not for pedestrians or horses. These facilities can range in size, measuring from the edge of the cartway, from an absolute minimum of 5 feet if there is no curb or 6 feet with a curb up to a more preferable 8 feet or more. Considering the unsuitability for pedestrian needs, this kind of trail perhaps

Figure 11-3
On-Road Facilities

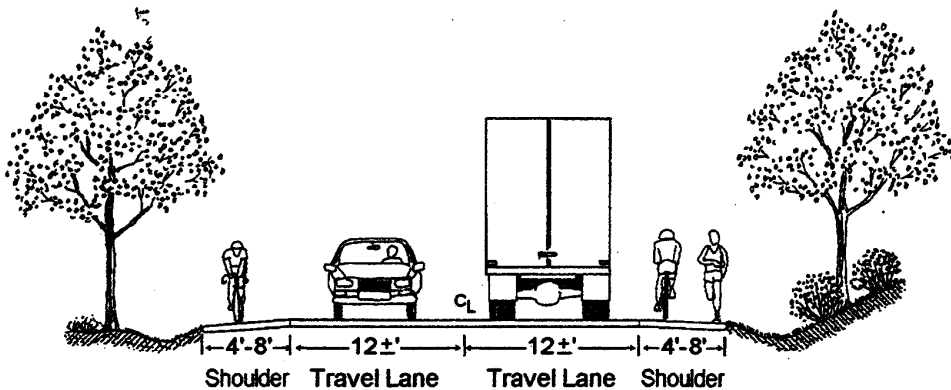
SHARED LANE



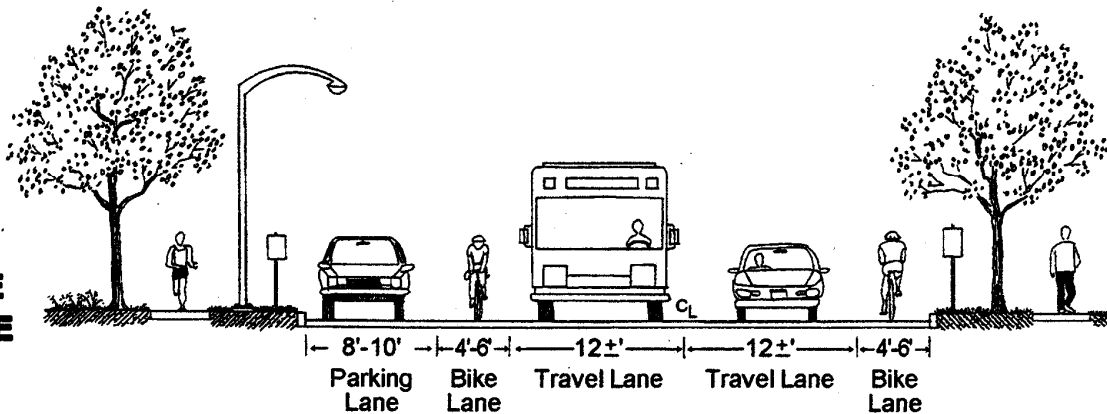
WIDE CURB LANE



SHOULDER



BIKE LANE





When the sidewalk ends, the family has to walk in the road

Photo: MCPC

should be paired with a sidewalk or other pedestrian facility.

Another on-road facility that is exclusively for the use of legal vehicles such as bicycles or mopeds is the wide lane. In this case the travel lane is widened so that slower vehicles can be passed without requiring a lane change. Typically, these wide lanes are about 16 feet or more in width. Obviously, a pedestrian facility should be paired with these.

Finally, the most obvious on-road trail facility is the bike lane. Specially striped and designated, this kind of trail provides the most obvious and often the safest facility of the on-road trail types.

See Figure 11 - 3 for sketches of the various on-road trail types.

COMBINATION TRAILS

For Worcester, or at least for this plan, we will propose a new category of trails, the combination trail.



A multi/equestrian combination trail in Washington
Photo: piercecountytrails.org

This trail combines two or more kinds of trails in one alignment. For example, an 8-foot-wide multi-use trail separated by 12 feet and a split-rail fence from a parallel equestrian trail would be a combination trail that we will call a "multi/equestrian trail." Other combination trails could be "sidewalk/bike lane" or "sidewalk/wide shoulder." These combination trails would occur where two or more separate trails share a short piece of alignment, or where the largest variety of users is foreseen to share a section of the trail system.

GREENWAY ANALYSIS AND PLAN

While the fundamental objective of the greenway network is conservation oriented, greenways serve many other local and regional needs. *Greenways: A Guide to Planning, Design, and Development*, by Chuck Fink, Loring Schwarz and Robert Seams, published in 1993 and sponsored by The Conservation Fund, identified the following specific benefits of greenways:

Greenways offer a way to preserve vital habitat corridors and to promote plant and animal species diversity. A greenway also can serve as a critical filtering zone. Its wetlands can absorb contamination in surface runoff. Trees, shrubs, and cover vegetation along the corridor cleanse and replenish the air.

Greenways can help preserve the rural character of a community or safeguard areas of visual interest by protecting ridgelines, river corridors, and scenic resources. In rapidly urbanizing areas, a greenway offers visual relief. Its wooded breaks can frame and distinguish

neighborhoods in an otherwise undifferentiated urban sprawl. In the countryside, greenways can work with programs that preserve farmland and expanses of scenic open space.

Greenways are community amenities with an economic value. They enhance the quality of life and can increase the value of surrounding properties. Greenways have been shown to draw tourists and have been a catalyst behind new commercial development and the revitalization of former town centers. Greenways planned as elements of subdivisions can benefit homebuyers and developers alike.

Greenways provide safe, alternative, non-motorized transportation routes for commuters going to work and children traveling to and from school. Greenways link us to our communities and, by lessening our dependence on the automobile, can improve air quality and reduce road congestion.

GREENWAY ELEMENTS

The most significant greenway element in Worcester Township is the network of stream corridors shown in Figure 4 - 5 in Chapter 4 and shown as buffered areas in Figure 6 - 1 in Chapter 6. This can form the spine of the greenway system. However, a number of other environmental amenities are located within stream corridors, making these areas particularly valuable.

Steep slopes and woodlands are visible features of greenways and provide specific environmental benefits. Figures 4 - 4 and 4 - 9 in Chapter 4 show the location of steep slopes and woodlands throughout the township.



Stony Creek headwater stream

Photo: Susan Caughlan

WOODLANDS

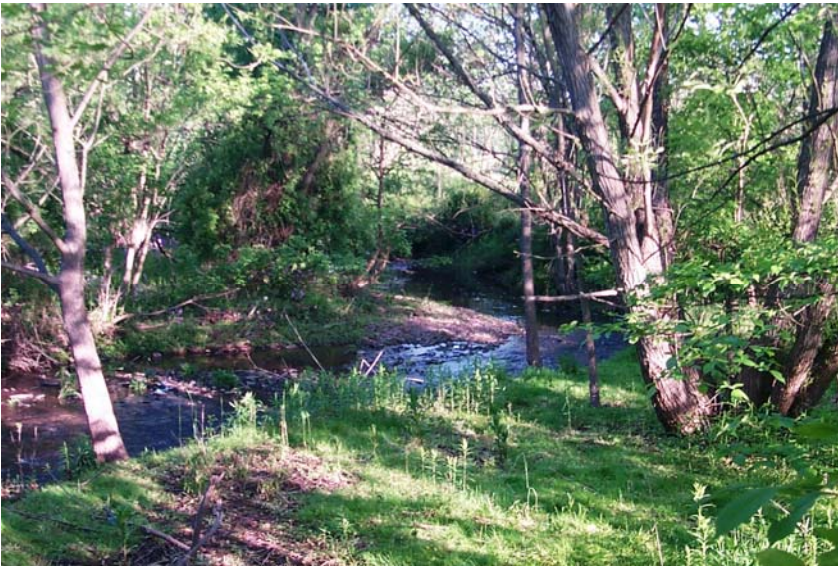
The most significant natural amenity within stream corridors is woodlands. A healthy riparian corridor will contain woodlands and a dense vegetative groundcover. Wooded riparian corridors have been scientifically shown to benefit water quality. The trees and vegetative cover will slow runoff flowing through the corridor, filtering out sediment and nutrients. In addition, the root systems of the trees and ground vegetation increase the infiltration capacity of the soil, trapping and utilizing nutrients before they reach the stream. The large root systems of the trees along the streambanks act as armor, effectively holding the soil in place. The trees also drop leaves and twigs into the streams, providing food for aquatic organisms. The presence and variety of aquatic organisms increase the possibility of fish propagation and are a primary indicator of water quality. Tree canopy also shades and cools the stream, maintaining higher levels of oxygen for fish and other aquatic organisms.

Wooded riparian areas provide food and shelter for both terrestrial and aquatic animals and serve as "wildlife highways" connecting large open spaces. Maintaining a wooded riparian corridor also causes development to be set back from the streams, minimizing the threat of flooding and damage to buildings.

STEEP SLOPES

Steep slopes are the result of geology and hydrology and therefore are closely aligned with stream corridors. Steep slopes are often easily eroded, so the depth of topsoil typically decreases as slopes increase. This means susceptibility to erosion and mass movement of soil may be greater than on nearby less-sloping areas. Maintaining a vegetative cover on steep slopes is important to minimize erosion. Erosion and the resulting sedimentation of streams reduce water quality and can contribute to downstream flooding by reducing the carrying capacity of the streams. Steep slopes also support unique plants and wildlife that are part of the region's biodiversity.

Floodplains, wetlands, and hydric soils, while less visible, are also important environmental amenities worthy of protection within greenways. Figures 4 -



Wooded area along the Zacharias Creek near Green Hill Road

Photo: MCPC

7 and 4 - 8 in Chapter 4 show the locations of hydric soils, floodplains, and wetlands in Worcester Township.

FEMA FLOODPLAINS

The Federal Emergency Management Agency (FEMA) maintains maps of designated floodplains. Floodplain protection is important because development in the floodplain reduces the carrying capacity of a stream, increasing the downstream height and destructive ability of floodwater, and prevents groundwater recharge. Development within the floodplain also poses a danger to property and human life. Therefore, preservation of stream corridors in a natural state is essential to flood protection efforts. Preserved floodplains can also offer opportunities for trails and other forms of recreation. Due to the rural nature of the township, there is limited development of the floodplain. Maintaining these areas through existing regulation should be an achievable goal.

WETLANDS

The U.S. Fish and Wildlife Service is responsible for maintaining the National Wetland Inventory (NWI). The NWI as a reference tool provides quick and easy identification of wetland areas, including the habitat classification. Wetlands provide important benefits by filtering sediment, nutrients, and other pollutants from water. Wetlands also help with flood control by limiting development adjacent to streams and retaining large amounts of water during

storms. They provide significant natural habitat for numerous plants and animals, including many species that are threatened or endangered. Most of the wetlands in Worcester are scattered throughout the township, and some serve as farm ponds.

HYDRIC SOILS

Hydric soils are periodically wet soils that often support the growth of wetland vegetation, including certain species that are indicative of wetlands. Since only some hydric soils are found in undrained conditions, not all hydric soils exhibit wetland vegetation. Hydric soils that have been drained for agricultural use are one example of this. Soils with major hydric components are a conservative indicator of wetlands. Other soils have hydric components in limited settings, such as depressions, swales, and alluvial soils. Given the water-purifying and habitat benefits of wetlands, the value of protecting these areas is well established.

POTENTIAL GREENWAY CORRIDORS

Figure 6 - 1 in Chapter 6 shows the relationship of the natural features discussed above to areas within 200 feet of a stream. The figure also depicts the convergence of woodlands and steep slopes with areas identified as floodplains, wetlands, and hydric soils. The areas of convergence indicate the highest priority greenways.

Given the numerous benefits of wooded riparian corridors, trees and woodlands are the most important features of a greenway. Worcester also has areas of wooded steep slopes. These areas will be defined as vegetated potential greenways. Floodplains, wetlands, and hydric soils outside wooded and steep areas also offer significant opportunities for greenways. These areas will be defined as non-vegetated potential greenways. Again, Figure 6 - 1 shows the locations of these potential greenways, as well as the convergence of resources inside and beyond the 200-foot (riparian) buffer area.

These maps not only help to identify significant areas for environmental protection and preservation but also will direct the Township in the identification of potential greenway paths.

TOWNSHIP TRAIL PLAN

Chapter 5, Potential Trail and Greenway Linkages, identified the possibilities for an efficient and effective trail network. This section will now lay out the plan and potential strategies to accomplish that plan.

POTENTIAL TRAILS

Figure 11 - 4 shows the approximate alignment of the trails the Township would like to develop. This illustration is open to revision in the future by the Township Supervisors on a case-by-case, segment, or a comprehensive basis. These trails can be any of the following types, based on the descriptions above: footpaths, equestrian trails, multi-use trails, sidewalks, wide shoulders, wide travel lanes, bike lanes, or combination trails.

STRATEGIES

These trails can be initiated and constructed by the Township, developers, or other public or private property owners. This section will lay out some of the strategies available to the township.

The Township could enact an ordinance requiring developers to provide trails in certain situations, referencing this plan to guide the potential alignment of the trail. Enactment could be achieved simultaneous with or shortly after adoption of this plan. The Township should also establish trail construction standards to ensure that the developers provide a trail that meets the Township's expectations for quality, dimension, design, and alignment width.

The Township could begin discussions with non-profit or other organizations, such as the Wissahickon Greenway Association, Farmers' Union

Horse Company, and Horseways, to discover what collaborations are possible. These organizations have considered and some have established equestrian trail networks.

The Township could begin building trails on Township-owned land or in access easements provided to the Township. If more detail is required for the trail system, especially for Township-initiated trail segments, the Township could have trail feasibility or schematic plans prepared before construction drawings are begun.

The Township could begin negotiations with PECO and existing licensees to acquire an access license along the various powerline corridors in the township. Or, if the County is successful in achieving a blanket license from PECO for trails throughout the county, the Township should begin discussions with the County for a sublicense from them.

The Township could initiate discussions with property owners along the proposed trail network to determine where trails are feasible in the near or more distant future. Once small segments seem to be available, the Township could pursue donation or purchase of the necessary land or easement for that segment and then begin design and construction of the trail.

If the Township chooses to develop a recreation facilities plan, trails in the parks and greenways should be addressed in a more detailed manner in that plan.

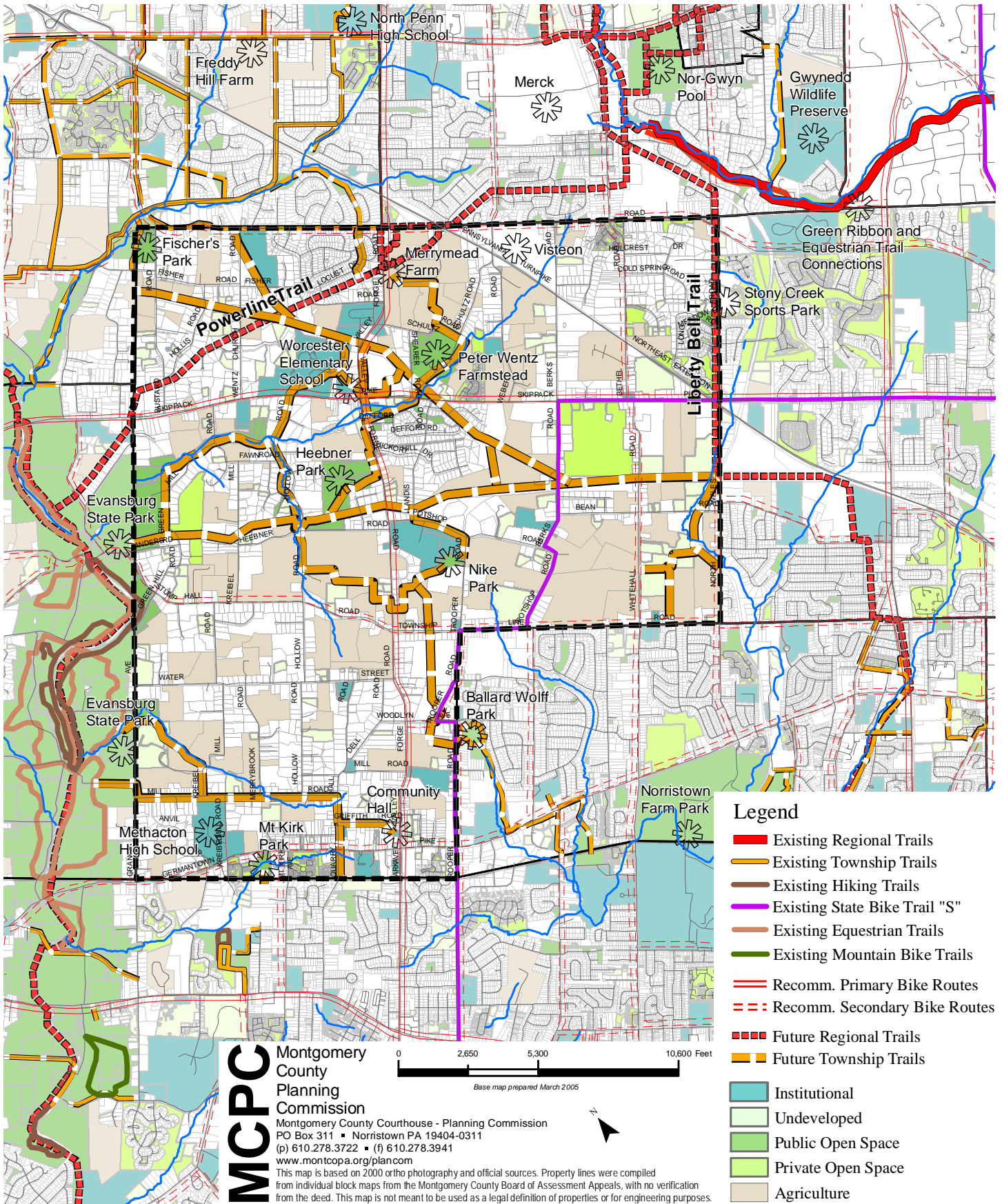
The Township can continue discussions with neighboring communities and Evansburg State Park concerning possibilities for trail connections.



View from North Wales Road of PECO powerline property where a trail is planned to traverse

Photo: MCPC

Figure 11-4
Township Trail Plan



TRAIL CONSTRUCTION PRIORITIES

Figure 11 - 5 shows the trail segments and their priorities.

SHORT-RANGE TRAIL PRIORITIES:

Complete Zacharias Creek to Heebner Park segment, Heebner to Nike Park segment, and the Palmer trail hub and Peter Wentz Farmstead connector segment.

Complete trail segments in new land developments.

MEDIUM-RANGE TRAIL PRIORITIES:

Complete trail segments along PECO rights-of-way.

Complete trail segments along the Powerline Trail.

Complete trail segments along the Liberty Bell Trail.

Complete trail segments from Nike Park to North Wales Road and to the Liberty Bell Trail.

LONG-RANGE TRAIL PRIORITIES:

Complete remaining trail segments (not circled on the map).

PATHWAY LOCATION CONSIDERATIONS

When selecting the location of the various pathway types, the following design considerations should be referenced:

- The path should be separated from traffic as much as possible and should minimize at-grade road crossings.

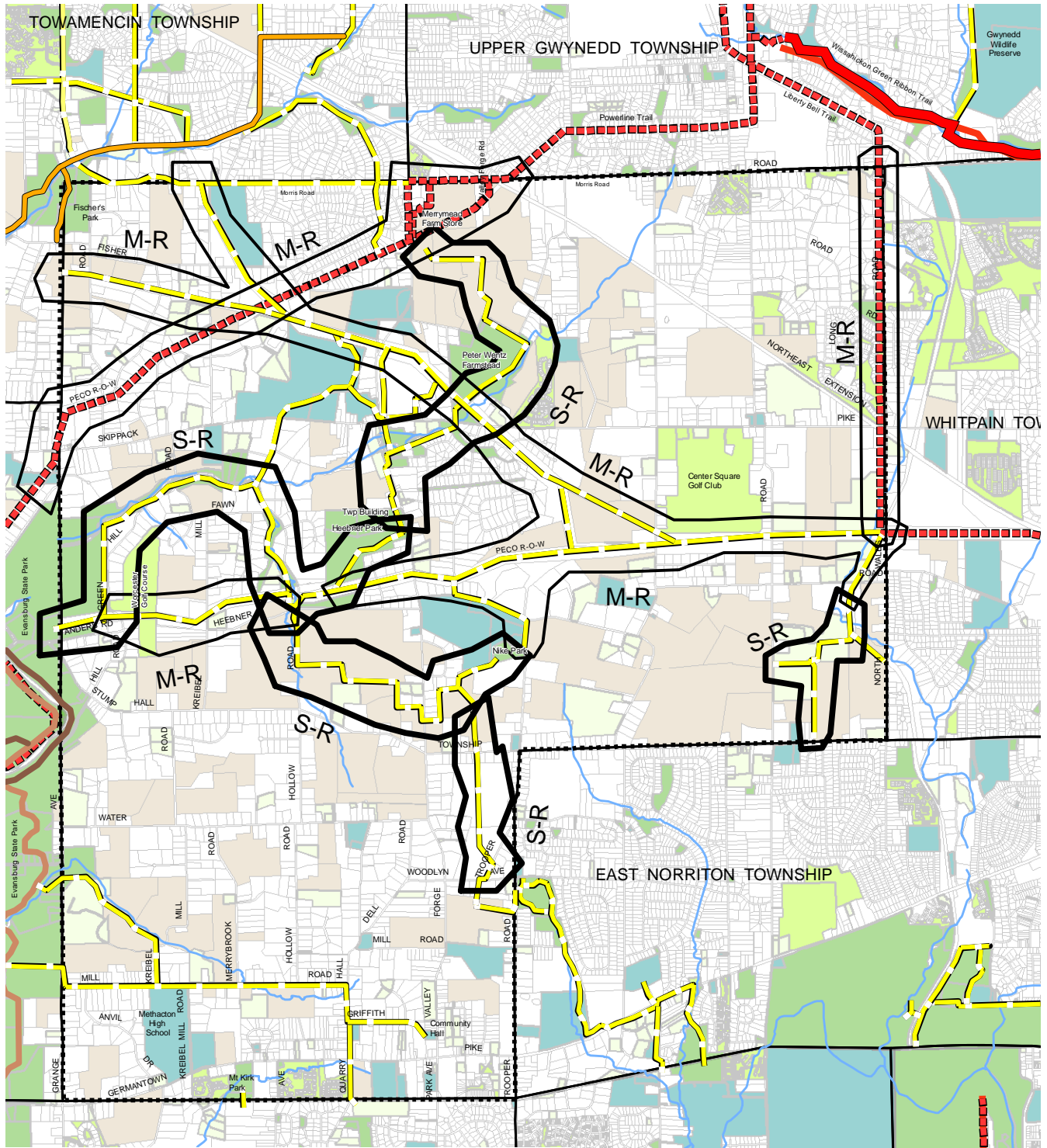
- The path should be as continuous as possible and should not require users to travel on local streets to get from one link to another.
- The path should extend to a destination point.
- Avoid extensive use of perimeter trails.
- When paths are part of a subdivision or land development, they should be constructed as part of the improvements and should be in place prior to the sale or construction of individual homes.
- The path should avoid crossing significant streams, whenever possible.
- The path should be accessible to as many residential areas as possible.
- Road crossings should be made at signalized intersections, where possible, or at intersections controlled by a stop sign. Signage should indicate the presence of the path. Any road crossing in the middle of a block should be clearly marked, should have good sight distances, and may need to be controlled by a warning light or stop sign.
- The path should avoid grades over 5%. Steeper grades may be acceptable for short distances and should not approach any roadway without adequate stopping distance.
- The path should not parallel existing roads in areas with numerous driveways and/or road crossings.



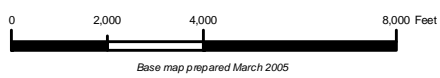
View from Green Hill Road near where a trail is planned to traverse

Photo: MCPC

Figure 11-5
Township Trail Implementation Plan



MCPC Montgomery County Planning Commission
 Montgomery County Courthouse - Planning Commission
 PO Box 311 Norristown PA 19404-0311
 (p) 610.278.3722 (f) 610.278.3941
 www.montcopa.org/plancom
 This map is based on 2000 ortho photography and official sources. Property lines were compiled from individual block maps from the Montgomery County Board of Assessment Appeals, with no verification from the deed. This map is not meant to be used as a legal definition of properties or for engineering purposes.



EAST NORRITON TOWNSHIP
 township trails currently undetermined

Legend
 S-R = Short-range
 M-R = Medium-range

- For safety, the path should be visible from roads, homes, and businesses.
- The path should be set back from existing homes as far as reasonably possible in order to protect the privacy of the residents.

SUMMARY

This chapter provides the Township with the opportunity to create some significant improvements to the quality of life for Worcester residents. Linking open spaces gives much more value to residents by increasing access and offering more variety in recreation opportunities. With this plan, the Township can provide guidance to non-Township agencies and landowners and can request the participation of public and private partners to provide trails in and through Worcester Township.



Zacharias Creek at Hollow Road

Photo: Laura Caughlan



Center Point

Watercolor by Bill Bourne

CHAPTER 12

HERITAGE RESOURCE CONSERVATION

Although not directly related to open space preservation, protecting historic and cultural resources is important to preserving the township's sense of place, rural character, quality of life, and even its economic activity. The township has a large number of historic resources and at least one prehistoric site which, along with scenic resources, farms, and open spaces, are major components of its unique rural character and economy. These heritage structures and sites comprise a valuable resource that has enormous cultural, aesthetic, and economic value to the residents of the township. Along with the rural

landscape in which they are set, historic sites represent the township's largest tourist attraction. The Township, in partnership with other agencies and organizations, will continue to act to preserve its heritage and cultural history for the benefit of present and future citizens.

VALUE OF HERITAGE RESOURCE CONSERVATION

The preservation of local heritage is important in maintaining the quality of life in Worcester Township. Local heritage basically consists of the historic



Making apple cider at Peter Wentz Farmstead

Photo: Morgan McMillan / PWF

buildings, landmarks, and landscapes that provide a link to a community's past and thereby make a valuable contribution to its current educational, cultural, and social environment. Throughout the open space planning process, the Open Space Committee has identified many heritage resources that are worth saving (see Figures 4 - 12, 4 - 13, and 4 - 14).



Peter Wentz Farmstead is listed on the National Register

Photo: Morgan McMillan / PWF

HERITAGE RESOURCE CONSERVATION GOALS

The following are possibilities for Worcester's Heritage Conservation goals:

- Worcester Township's vision for preserving its heritage resources can build on the specific policies outlined in the Comprehensive Plan for historic and archeological resources as well as scenic corridors.
- Worcester can create a Historic Preservation Committee to advise the Township on actions it can take to preserve its historic resources.
- Worcester can consider preparation of a Township Heritage Resources Conservation Plan (THRCP) for review by the Board of Supervisors as an amendment to the Comprehensive Plan.

TOWNSHIP HERITAGE RESOURCES CONSERVATION PLAN

The purpose of the Township Heritage Resources Conservation Plan (THRCP) is to facilitate conservation design by identifying priority historic and archeological resources so that they can be incorporated into any new developments. The richness of the history of the township demands that it be not just preserved, but embraced through education, tourism and adaptive reuse programs. The THRCP will recommend innovative policies that will identify historic resources and facilitate creative approaches to their preservation.

Worcester Township has a mixed record of preserving its rich history. There are two individual resources that are recognized and listed on the National Register of Historic Places, but none of the numerous historic properties is protected, either by incentive or by restrictions, by the Township's zoning ordinance. As the township continues to develop, however, these and other strategies for making smart preservation choices are needed. As everywhere else, in Worcester many historic resources have been destroyed or allowed to decay over time.

The current draft of the 2006 Comprehensive Plan Update recognizes the value of conservation design planning as one of the most effective ways to preserve the character and quality of life for the township. In this process, historic resources are identified and preserved to the extent possible in development proposals.



Kriebel Mill barn is along the Zacharias Creek greenway and trail corridor as well as being one of the largest stone barns in the area Photo: Laura Caughlan

A number of factors need to be considered to prioritize historic resource conservation: historic value, vulnerability, relationship to open space, inclusion in a greenway or location along a trail, amount of expenditures needed versus funds available, potential or commitment for partnerships, additional preservation values such as farmland or natural resources, educational value, value as a viable economic entity, and alternative conservation methods.

HISTORIC RESOURCE ACQUISITION

One of the most straightforward ways for a township to save a historic resource is to buy it. However, protecting it from human destruction is one thing; protecting it from nature and time is another.

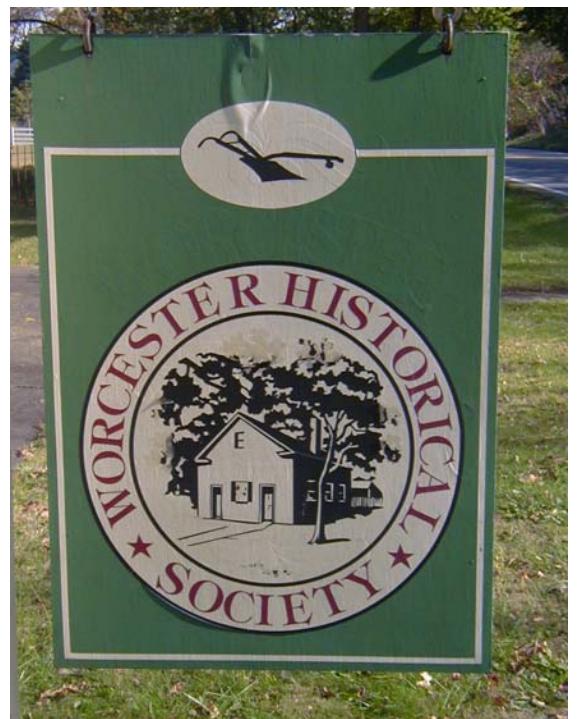


Community Hall is owned by the Township and used for public meetings Photo: unknown



The Smith springhouse was acquired by the Township Photo: Laura Caughlan

Depending on the condition of the resource, this can lead to major expenditures. Often historic resources, especially in public ownership, should be accessible to the public. This entails even more expenditures to restore and maintain a resource for public accommodation. Some municipalities have the support of the citizens to embark on such efforts for the welfare of the whole community, some communities rely on non-profit or private efforts to conserve historic resources, and still others do both. Worcester Township has relied on a combination of Township action and the efforts of the County, the Worcester Historical Society, and private citizens to retain and maintain historic resources in the township.



The Worcester Historical Society is active in the township Photo: MCPC

To determine which properties the Township might acquire itself or in partnership, the Township can meet with the various historic conservation players in the area to discuss and determine the Township's part in the highest priority acquisitions.

The following are the township's recommendations for historic resource acquisition:

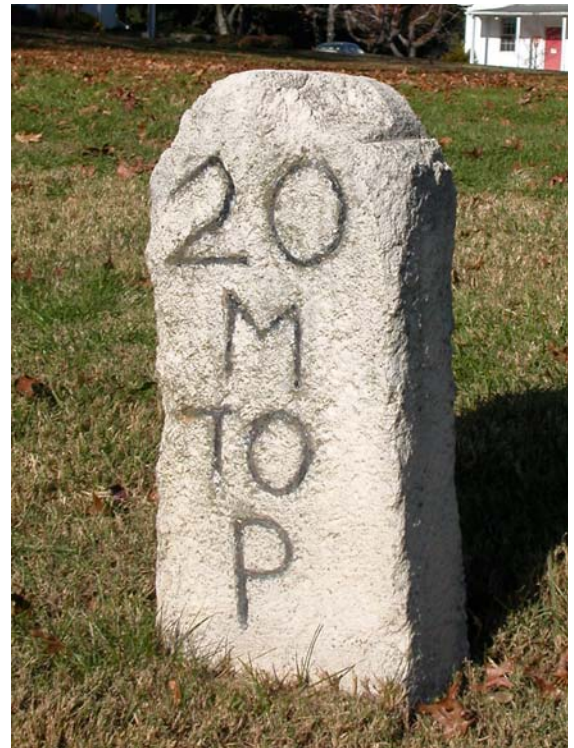
The resources that have a high value for county, state, or national preservation should be proposed for preservation by the County, State, or Federal governments. In order to spread the Township resources as far as possible, county, state, and federal money should be used to preserve these properties.

The Township should focus its resources on historic resources that have a high value for township preservation and are not likely to be preserved by other means.

In both cases the Township should work with the county, state and federal governments and/or historic preservation organizations to ensure that property owners understand the opportunities for heritage preservation.

NON-ACQUISITION METHODS

Preservation of historic resources can be achieved using a variety of methods. These include designated historic districts, historic review boards, tax incentives for rehabilitation, a façade improvement program, and historic preservation ordinances.



Milestone on Skippack Pike (indicating 20 miles to Philadelphia) Photo: Susan Caughlan

HISTORIC PRESERVATION ORDINANCES

While not directly related to open space preservation, historic preservation ordinances help save historic properties that add to the character of an area. There are a number of techniques that communities can use for historic preservation.

One possibility is that communities can amend their ordinances to require a review before demolition permits are issued. This method delays demolition and allows for community input. Communities can also amend their zoning ordinance to encourage historic preservation.

Another way of encouraging historic preservation is the creation of a village zoning ordinance that guides development in a village-appropriate scale and encourages the preservation of existing buildings. Incompatible uses with historic areas, such as gas stations, are not permitted in these districts. The zoning ordinance can also encourage historic preservation by allowing historic buildings to have more uses than normally permitted in a particular district. For example, apartments, bed and breakfast establishments, or offices might be permitted in historic homes located in a single-family detached residential district.



Willison Smith farmhouse

Photo: Susan Caughlan



A historic farm along the PECO powerline

Photo: Laura Caughlan

A third possibility is that communities can create historic districts with the approval of the Pennsylvania Museum Commission. This approach can provide more control than the previous approaches discussed. Once a historic district is created, the Township can use the district as a basis for ordinances that can control the design and preservation of buildings and facades. To do this, a township architectural review board is required to be created to review proposed changes to historic buildings. This approach is discussed more thoroughly below.

COMBINED AGRICULTURAL, NATURAL, AND HISTORIC RESOURCES PRESERVATION

Sometimes several different valuable resources overlap on the same property. Therefore, by preserving one resource, other resources are also preserved. Or, sometimes when considering the value of pre-



Old Bethel Hill United Methodist Church

Photo: Susan Caughlan

serving one resource, the value of other resources on the same property should be added into the consideration.

Figures 4 - 6 and 10 - 3 highlight the value of land for farmland preservation by both the township and the county. Figures 6 - 2, 6 - 16, and 6 - 17 indicate the land most valuable for natural resource conservation. It is important to note that many of the properties identified as important farmland are also important historic resource sites. The method of preservation, however, will vary based on ownership goals and land management. Preservation for resource value can be done via land use controls or acquisition. Land preserved for agricultural purpose should remain in farming and most often will remain in private ownership. The benefit of the township preserving farmland through the purchase of development rights versus preservation by the county is that the township does not need to follow the more stringent guidelines of the State Agricultural Preservation Program.

HISTORIC DISTRICTS

The Township can consider the use of National Register Historic Districts to recognize and help protect Worcester's historic assets. Historic Districts do not need to be comprised of resources that are close together; they can also be thematically similar resources, such as schoolhouses, separated by miles. A National Register Historic District has three important aspects: 1) it prevents the State and the Federal governments from taking or significantly impacting a historic property, 2) it may qualify the property owner for certain federal tax credits, and 3) it is an honorary designation. This honorary status is the most widely used measure of historic value and can be used as the basis for funding, tax, and regulation programs. However, no formal preservation protections, restrictions, or incentives accrue automatically as a result of being granted historic district status. Separately and independently, however, a municipality may use the legitimacy of the historic district to add special preservation requirements to the properties involved. In the meantime, the property owners enjoy honor, protection from governmental taking, and some financial benefits.

The areas in Worcester best suited for consideration as historic districts are Cedars, Fairview Village, and Center Point. Resources in Worcester that could be considered for thematic historic districts are the churches, schoolhouses, and springhouses.

HISTORIC REVIEW BOARD

Once a historic district has been established, the Township could establish preservation regulations for that district, which are administered by a Historic Architectural Review Board (HARB). The scope of the regulations is up to the township. Worcester has recently established a Historic Review Committee to study the available options and recommend possible strategies, including historic districts and a HARB.

HISTORIC PLAQUE PROGRAM

Many of the historic buildings still existing in the township are not easily recognized. Worcester could consider a Historic Plaque Program to honor these buildings and the historic events they may represent. In addition to buildings, there are other kinds of structures, such as bridges or stone walls, and certain sites, such as the locations of Revolutionary War encampments, that could also be recognized.

TAX INCENTIVES FOR REHABILITATION

One method to encourage private investment in historic resource conservation is tax incentives.

The federal government has tax incentive programs that can be very attractive to owners of historic properties who would like to rehabilitate or restore the property.

Tax incentives for historic preservation benefit the community in several important ways:

- Preserve historic buildings



The Blackberry Farm farmhouse

Photo: Donald C. Atkinson



Marker at the site of the Jacob Wentz Tavern

Photo: Laura Caughlan

- Create a sense of place, create historic character, and improve aesthetics
- Attract private investment
- Create jobs
- Increase tax revenue by increasing business activity and property values

FEDERAL TAX INCENTIVES PROGRAMS

Current tax incentives for preservation, established by the Tax Reform Act of 1986, include:

- A 20% tax credit for the certified rehabilitation of certified historic structures.
- A 10% tax credit for the rehabilitation of non-historic, non-residential buildings built before 1936.
- A low-income housing tax credit.

A tax credit is a refund, not a deduction from income, and therefore practically a dollar for dollar subsidy to the property owner. The credit pays for rehabilitation costs, including not only construction costs but also architects fees, engineers fees, and legal fees. The rehabilitation must be substantial and must involve a depreciable building.

Charitable contributions for historic preservation purposes also qualify for income and estate tax deductions under Internal Revenue Code Section 170 (h) and Department of the Treasury Regulation Section 1.170A-14.



The Bookheimer Farm with unique tile silo

Photo: Susan Caughlan

THE 20% TAX CREDIT PROGRAM

The Federal Rehabilitation Investment Tax Credit program is one of the nation's most successful and cost-effective community revitalization programs. To date tens of thousands of rehabilitation projects have been approved, representing billions of dollars in private investment. The program fosters private sector rehabilitation of historic buildings and promotes economic revitalization. It also provides a strong alternative to government ownership and management of historic properties. The historic preservation tax incentives are available for buildings that are National Historic Landmarks, are listed on the National Register, or are contributing resources in National Register Historic Districts and certain local historic districts. Properties must be income-producing and must be rehabilitated according to the Secretary of the Interior's Standards for Rehabilitation. Jointly managed by the National Park Service and the Internal Revenue Service, in partnership with the PHMC's Bureau for Historic Preservation, the historic preservation tax incentives program rewards private investment in rehabilitating historic buildings.

The 20% rehabilitation tax credit applies to any project that the Secretary of the Interior designates a certified rehabilitation of a certified historic structure. The 20% credit is available for properties rehabilitated for commercial, industrial, agricultural, or rental residential purposes, but it is not available for properties used exclusively as the owner's private residence. The work must be done after approval of the tax credit. There are no retroactive credits.

THE 10% REHABILITATION TAX CREDIT

The 10% rehabilitation tax credit is available for the rehabilitation of buildings not listed on the National Register and placed in service before 1936. This program is intended for old, otherwise neglected properties.

As with the 20% rehabilitation tax credit, the 10% credit applies only to buildings, not to other structures. The rehabilitation must be substantial, exceeding either \$5,000 or the adjusted basis of the property, whichever is greater. Finally, the property must be depreciable.

The 10% credit applies only to buildings rehabilitated for non-residential uses. Rehabilitation must retain most, but not all, external walls and internal framework.

OTHER TAX INCENTIVES FOR HISTORIC PRESERVATION

Other Federal tax incentives exist for historic preservation. They may be combined with the rehabilitation tax credit.

TAX CREDIT FOR LOW-INCOME HOUSING

The Tax Reform Act of 1986 (IRC Section 42) also established a tax credit for the acquisition and rehabilitation or new construction of low-income housing. The credit is approximately 9% per year for 10 years for projects not receiving certain Federal subsidies and approximately 4% for 10 years for projects subsidized by tax-exempt bonds or below-market Federal loans. The units must be rent restricted and occupied by individuals with incomes below the area median gross income. The law sets a 15-year compliance period. Credits are allocated by State housing credit agencies.



The Lowry / Gouley House at Whitehall and Bean Roads

Photo: Susan Caughlan

CHARITABLE CONTRIBUTIONS FOR HISTORIC PRESERVATION PURPOSES

This program allows a tax deduction for the charitable contribution of historic buildings and donation of façade easements to a local government, historical society, or conservancy.

Internal Revenue Code Section 170(h) and Department of the Treasury Regulation Section 1.170A-14 provide for income and estate tax deductions for charitable contributions of partial interests in historic property (principally easements). The Tax Reform Act of 1986 retained these provisions. Generally, the IRS considers that a donation of a qualified real property interest to preserve a historically important land area or a certified historic structure meets the test of a charitable contribution for conservation purposes. For purposes of the charitable contribution provisions, a certified historic structure need not be depreciable to qualify, may be a structure other than a building, may be a portion of a building such as a facade, if that is all that remains, and may include the land on which it is located.

The IRS definition of historically important land areas includes:

- Independently significant land areas, including any related historic resources that meet National Register Criteria for Evaluation
- Land areas within registered historic districts, including buildings, that contribute to the significance of the historic district
- Land areas adjacent to a property individually listed on the National Register of Historic Places (but not within a historic district) where physical

or environmental features of the land area contribute to the historic or cultural integrity of the historic property

More Information about Federal Tax Incentive Programs

The following websites provide much more detailed information about these various programs:

<http://www.cr.nps.gov/hps/tps/tax/index.htm>

<http://www.cr.nps.gov/hps/tps/tax/brochure1.htm>

<http://www.cr.nps.gov/hps/tps/tax/taxbroch.pdf>

OTHER PRESERVATION PROGRAMS

THE TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY (TEA-21)

TEA-21 is the successor to the ISTEA program established in 1993. Under this program, 10% of the funds apportioned to Pennsylvania for the Surface Transportation Program are made available for special "enhancement" activities. Applications could include historic preservation research, planning, or acquisition and developmental projects that are along transportation corridors, are related to surface transport facilities, or improve the quality of a highway and its surrounding area. Eligible activities include preservation of historic buildings, access improvements to historic sites, archaeological planning and research, and transportation-related museum projects. The TEA-21 program is administered by the Federal Highway Administration (FHWA) and the Pennsylvania Department of Transportation (PennDOT).

CERTIFIED LOCAL GOVERNMENT (CLG) PROGRAM

The National Historic Preservation Act of 1966 (NHPA) established the Certified Local Government Program, the legal and administrative context within which State Historic Preservation Offices (SHPOs) relate to and participate in the national historic preservation program. The NHPA establishes a program of matching grants to the states through which the federal government assists the SHPOs in carrying out their historic preservation responsibilities. Using grants awarded by SHPOs, CLGs may produce historic theme or context studies, cultural resource inventories, assessments of properties to determine their eligibility for local and National Register of Historic Places designation, building reuse and feasibility studies, design guidelines and conservation ordinances, and publications to educate the public



The cemetery at the Evangelisches Versammlungshaus (German Evangelical Church), owned by the Worcester Township Historical Society. Photo: MCPC



The Farmers Union Horse Company annual horse parade at Heyser Field, 1971 Photo: Mary Walker

about the benefits of historic preservation. Presently, federal law provides that at least 10% of the annual Historic Preservation Fund grant allocation to Pennsylvania be set aside for distribution to Certified Local Governments. This amount currently ranges from \$90,000 to \$100,000. If Worcester became a CLG, it would be able to apply for some of these funds.

SAVE AMERICA'S TREASURES:

The Save America's Treasures program addresses the urgent preservation needs of the nation's most significant historic sites and collections. Grants are administered by the National Park Service (NPS) in partnership with the National Endowment for the Arts (NEA). The NPS awards and administers grants for historic structures and sites, including historic districts, sites, buildings, structures, and objects. The NEA administers grants associated with collections, including intellectual and cultural artifacts, documents, and works of art.

STATE HISTORIC PRESERVATION PROGRAM

THE KEYSTONE HISTORIC PRESERVATION GRANT PROGRAM

This program is the only grant available for historic preservation in Pennsylvania. Funding under this program is available to nonprofit organizations and local governments for preserving or restoring historic resources listed on or eligible for listing on the

National Register of Historic Places. It is a competitive, matching grant with a maximum award of \$100,000 for preservation, restoration, and rehabilitation. Currently, the program is supported annually with realty transfer tax revenue.

CHALLENGE COST SHARE GRANTS:

National Historic Landmark Stewards are invited to submit proposals for the Challenge Cost Share Program (CCSP), a 50% matching fund program. This program provides project funding to preserve or improve natural, cultural, and recreational resources for authorized National Park Service (NPS) programs, including National Historic Landmarks (NHLs.) Funding awards range from \$3,000 to \$30,000. Most awards have been in the range of \$10,000 to \$15,000.

NATIONAL TRUST FOR HISTORIC PRESERVATION

For more than 50 years, the National Trust for Historic Preservation has been helping people protect the irreplaceable. A private nonprofit organization with more than a quarter of a million members, the National Trust is the leader of the vigorous preservation movement that is saving the best of our past for the future. The National Trust provides leadership, education, and advocacy to save America's diverse historic places and revitalize our communities. The



Peter Wentz Farmstead

Photo: Morgan McMillan / PWF



Evangelisches Versammlungshaus Haas
(German Evangelical Church)

Photo: MCPC

National Trust owns and operates a collection of nationally significant house museums and provides a wide range of preservation services across the country, including grant programs.

The National Trust for Historic Preservation offers the following grants:

THE PRESERVATION SERVICES FUND

The Preservation Services Fund provides nonprofit organizations and public agencies with matching grants from \$500 to \$5,000 (typically from \$1,000 to \$1,500) for preservation planning and education

efforts. Funds may be used to obtain professional expertise in areas such as architecture, archaeology, engineering, preservation planning, land use planning, fund raising, organizational development, and law as well as preservation education activities to educate the public.

THE JOHANNA FAVROT FUND FOR HISTORIC PRESERVATION

This fund provides nonprofit organizations and public agencies with grants ranging from \$2,500 to \$10,000 for projects that contribute to the preservation or the recapture of an authentic sense of place. Individuals and for-profit businesses may apply only if the project for which funding is requested involves a National Historic Landmark. Funds may be used for professional advice, conferences, workshops, and education programs.

THE CYNTHIA WOODS MITCHELL FUND FOR HISTORIC INTERIORS

This fund provides nonprofit organizations and public agencies with grants ranging from \$2,500 to \$10,000 to assist in the preservation, restoration, and interpretation of historic interiors. Individuals and for-profit businesses may apply only if the project for which funding is requested involves a National Historic Landmark. Funds may be used for professional expertise, print and video communications materials, and education programs.

LOCAL INITIATIVE GRANTS

Local Initiative Grants support local nonprofit preservation organizations that are hiring their first full-time staff member. A Technical Assistance grant of up to \$2500 is available for strengthening organizational capacity and developing the resources necessary to hire and effectively use professional staff. Typically, this grant will require the use of the funding to obtain the services of an organizational development consultant.

COLLABORATIVE PILOT

Collaborative Pilot looks for creative partnership projects that advance the preservation mission and build the preservation movement at the local level. A Technical Assistance grant of up to \$2500 is available for project planning in the following areas: architecture, landscape architecture, archaeology, engineering, preservation land-use, organizational development, public policy, and law.



Victorian house on North Wales Road

Photo: Susan Caughlan



Wentz UCC Church

Photo: Donald C. Atkinson

The National Trust for Historic Preservation offers the following loans:

THE NATIONAL PRESERVATION LOAN FUND

The National Preservation Loan Fund provides loans to establish or expand local and statewide preservation revolving funds; to acquire and/or rehabilitate historic buildings, sites, structures, and districts; to purchase easements; and to preserve National Historic Landmarks.

INNER-CITY VENTURES FUND

Inner-City Ventures Fund finances the rehabilitation of historic buildings that serve the economic and community development needs of low-, moderate-, or mixed-income neighborhoods.

RELIGIOUS PROPERTIES

PARTNERS FOR SACRED PLACES

Founded in 1989, Partners for Sacred Places is the nation's only non-denominational non-profit organization devoted to helping Americans embrace, care for, and make good use of older and historic religious properties. Partners provides assistance to the people who care for sacred places while promoting a new understanding of how these places sustain communities. This Philadelphia-based international organization offers informational, promotional, and advocacy resources to preserve and continue the use of older church buildings.

FAÇADE IMPROVEMENT PROGRAM

A façade improvement program can encourage property owners to adopt architectural styles that will become consistent throughout the township. This is intended not to homogenize architectural styles, but to raise the standard for new buildings, additions, and façade upgrades.

SUMMARY

With good coordination among the various interested parties, Worcester's historic resources and rural character can be retained, restored, preserved, and conserved for current and future generations.



Peter Wentz Farmstead

Photo: Morgan McMillan / PWF



The Granary, a landmark historic residence along Skippack Pike

Photo: Donald C. Atkinson



Zacharias Creek at Hollow Road

Photo: MCPC

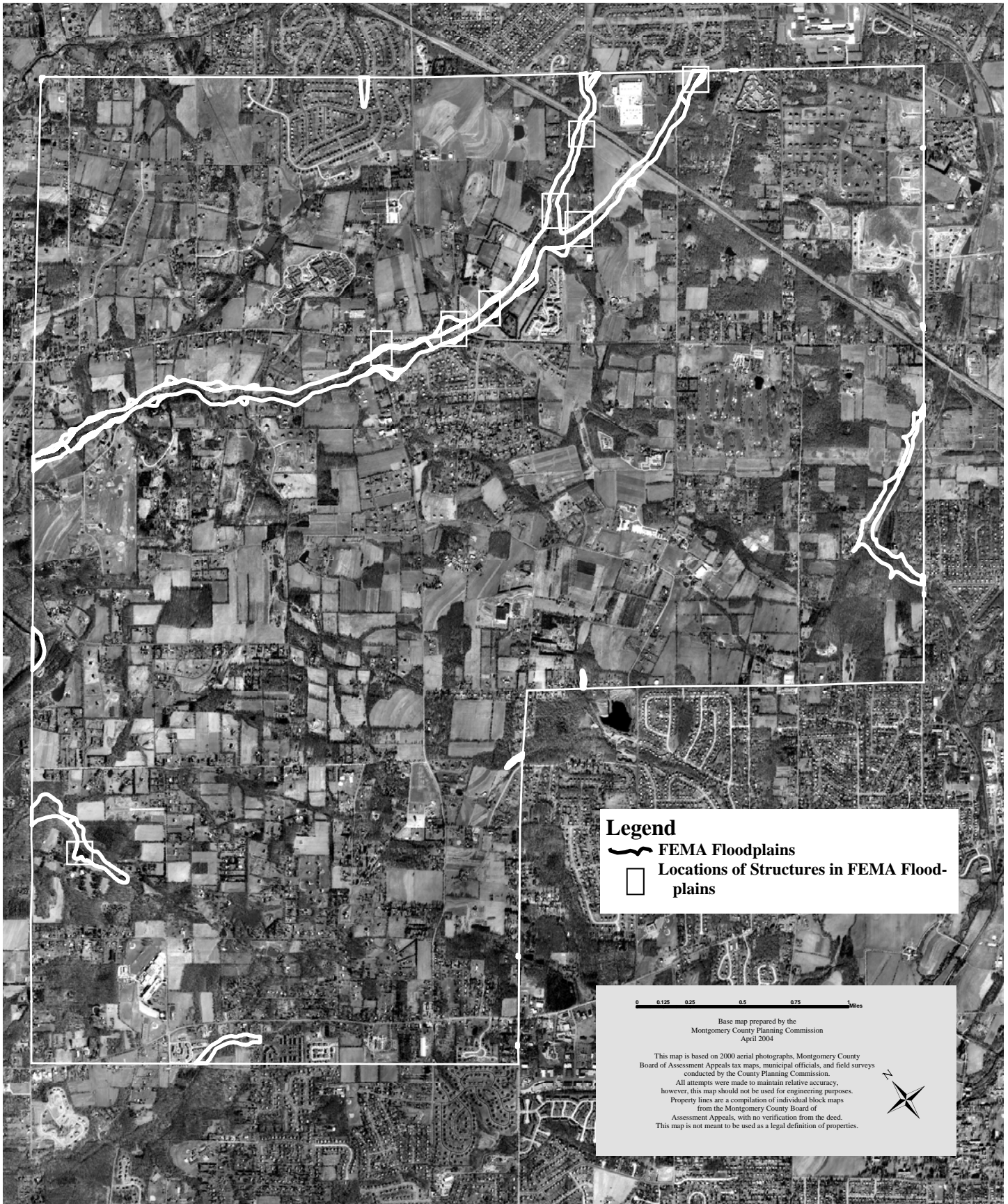
CHAPTER 13

FLOODPLAIN RESTORATION

The restoration of developed floodplains to their natural state is an effective way to reduce the cycle of flood-induced property damage that impacts several areas within the county. Reforestation or wetland plantings are particularly effective ways to do this. While private property owners can undertake floodplain restoration on their own, there may be a number of reasons these owners have not already done so, or the result may mean the removal of all structures from the property. Sometimes the best option is public acquisition of devel-

oped floodplain property for the purpose of returning it to its natural state. The selection of the floodplain property to be acquired should be based on careful analysis of the individual properties involved. This chapter will discuss some of the methods of floodplain restoration and programs available to facilitate such restorations.

Figure 13 - 1
Existing FEMA Floodplains



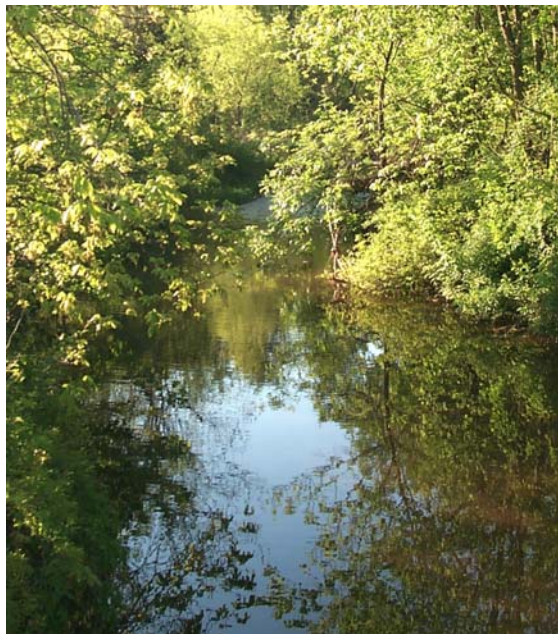
FLOODPLAIN RESTORATION IN WORCESTER

Fortunately, very few buildings in Worcester are located within floodplains. The FEMA floodplains and the locations of structures within these floodplains are shown in Figure 13 - 1.

If flood rescues and losses on such properties were to cause a significant impact on public resources, it might be sensible to investigate the possibility of township action. Fortunately, this has not yet been the case in Worcester. The post-restoration value of natural resource and animal habitat, or the public use of the property, can factor into a decision to acquire flood-prone property.

EXISTING FLOODPLAINS AND STRUCTURES

Figure 13 - 1 identifies all the floodplains within Worcester Township which were mapped by FEMA, the Federal Emergency Management Agency, and received by the Montgomery County Planning Commission in July 2001. The floodplain areas are shown over a background aerial view of the township. Closer examination of the aerials identified a few locations in the township where there are buildings that may be susceptible to flooding.



Zacharias Creek near Green Hill Road

Photo: MCPC

FLOODPLAIN RESTORATION

If a property or portion of a property is selected for floodplain restoration, there are a number of methods to accomplish the restoration, including the removal, modification or relocation of obstructions; replanting; and creek restoration.

FLOODPLAIN RESTORATION PROGRAMS

There are very few programs set up with specific consideration for floodplain restoration, but there are other programs that can be used to accomplish the same result, but in conjunction with other goals.

MONTGOMERY COUNTY OPEN SPACE PROGRAM

The 2003 Montgomery County Green Fields/Green Towns Open Space Program includes a portion of the program for floodplain restoration. This portion of the program was established by the County to help restore floodplains in the county which otherwise could continue to be a drain on public funds, could become a valuable natural resource area, and could possibly become part of a public park or trail system. The program attempts to fill the gap in funding provided by other agencies, which mostly repay the costs incurred by flood damage rather than paying to remove the cause of the costs. The program is administered by the County Open Space Board.



Zacharias Creek at Hollow Road

Photo: MCPC

This program must be coordinated with FEMA and PEMA (Pennsylvania Emergency Management Agency) efforts and funding. Through this program, Worcester Township's entire County Green Fields/Green Towns Open Space grant allotment would be available for the acquisition of land for floodplain restoration, with the requirement that 20% of the purchase amount be provided by the Township or another non-County source.

TREE PLANTINGS

DCNR and PECO each have tree planting programs available to provide communities with funds for trees and some technical assistance for tree plantings.

CREEK RESTORATION

The Perkiomen Watershed Conservancy (PWC) and the Delaware Valley Riverkeepers (DVR) are two local non-profit organizations that provide expertise in acquiring funding and implementing creek restoration projects. The PWC and the DVR often collaborate on creek restoration projects.

SUMMARY

Worcester Township has a few structures that are located in or near a floodplain and could pose the potential for expenditures of public finances and other resources. There are also some unimproved lands in the floodplain which could benefit from replanting and streambank restoration in order to restore important riparian habitat and improve the effectiveness of this natural flood control mechanism. This chapter has identified a few of these locations and described what programs and types of restoration are available if flooding should ever become a problem.



Zacharias Creek at Hollow Road

Photo: MCPC



The Palmer Farm in Center Point

Photo: Pictometry

CHAPTER 14

RECOMMENDATIONS: ACQUISITIONS

This portion of the plan details the Township's intentions for open space and resource protection through the acquisition of appropriate lands or easements on those lands. The recommendations of this chapter are based on the information gathered in the previous sections and reflect Worcester's intention to preserve farmlands and lands of ecological importance and to locate passive and active recreation areas close to its residents. Based on the analysis contained in the previous chapters, significant open space acquisition opportunities still remain within the township, but the increasing de-

mand for housing and other development makes it imperative that Worcester act sooner rather than later to preserve important resources.

ACQUISITION METHODS

There are a number of ways a municipality can obtain open space land or resources. An overview of these alternatives is provided here to serve as a guide for Worcester Township's future open space acquisition efforts. These alternatives provide the Township with flexibility in its approach to implementing its land preservation goals.



View over farms and Valley Forge Road in Worcester in 1987

Photo: Bill McGrane, Jr.

FEE SIMPLE ACQUISITION

This option is the most direct way to acquire open space because it involves simply negotiating with a private landowner to arrive at a mutually acceptable purchase price and then completing the transaction. The municipality then has free and clear title to the property, or fee simple ownership. Because it is usually a straightforward transaction, municipalities often prefer this approach, particularly for establishing a community park.

Compared to some of the other options, however, this approach can be expensive. It also requires a willing seller, presumes an agreement as to purchase price, and requires a plan to maintain and/or improve the parcel for appropriate use.

INSTALLMENT PURCHASE

This is a variation of fee-simple acquisition in which the municipality agrees to pay the purchase price over a number of years until the full parcel is acquired. In some cases the entire parcel is removed from the tax rolls when the initial agreement is signed. The parties may agree to allow the owner to remain on the land until the sale is completed. The advantage of this method is that benefits accrue to both the municipality and the landowner. For a municipality with limited funds, an installment purchase spreads the cost over a period of time. The landowner may receive tax advantages by spread-

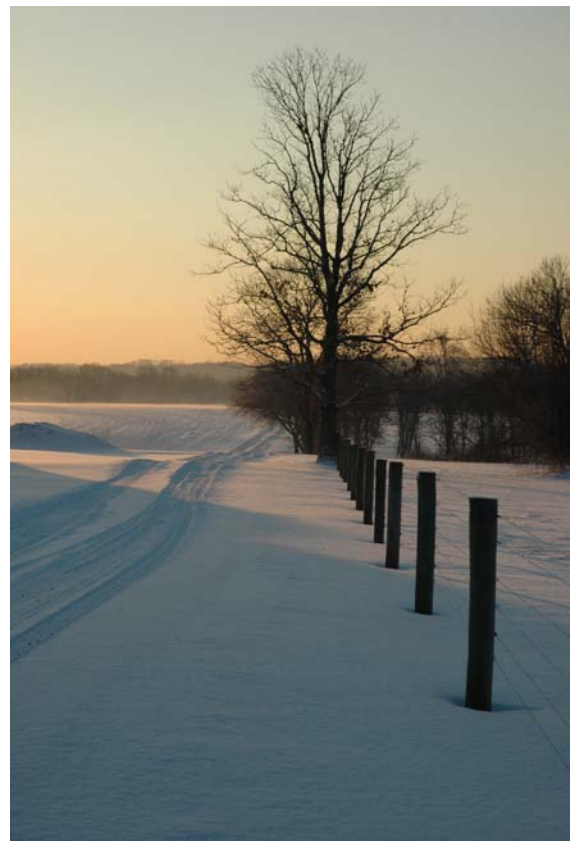
ing out the purchase price over a number of years and may be relieved of responsibility for the property when the agreement is signed.

LONG-TERM LEASE WITH OPTION TO PURCHASE

This involves the negotiation of a lease price with a property owner and includes conditions allowing the Township to use and possibly purchase the property. This method provides the municipality with some flexibility. If the property is not needed in the future for open space, it returns to the owner at the end of the lease period.

PURCHASE AND LEASE-BACK

In a purchase and lease-back transaction, the Township buys the land and leases it back to the owner in accordance with agreed-upon policies for the use and protection of the land. The primary advantage is that this permits the acquisition of property before prices rise or before the property is lost to development. The township also receives some income from the lease while retaining control of the ultimate use of the land.



A Worcester farm winter scene

Photo: Scott Rothenberger

PURCHASE AND RESALE

This method is similar to a purchase and lease-back, except that the land is purchased with the intent to resell it with conditions or restrictive covenants in place which will benefit the Township. If the land is acquired at a low cost, the resulting profit helps repay initial purchase costs and can be used to acquire additional land. Another advantage is that after resale, the municipality is relieved of ownership and maintenance responsibilities and the land is taxable. The conditions or restrictive covenants can allow the Township to achieve its goal for the parcel without the continued responsibility of ownership.

LEASING

This is a popular, relatively inexpensive way to acquire open space, especially if the land is unlikely to be developed (for example, reservoirs and utility land). The term of the lease usually ranges from 20 to 50 years, long enough to finance anticipated capital improvements. The owner of the leased land prescribes conditions and terms under which the land can be used, and the lessee is required to carry liability insurance covering personal injury and property damage.

EASEMENTS

Easements are a useful way to stretch public funds to achieve open space benefits. An easement is a limited right over land that is owned by another person. The costs of easements vary with the type acquired. Easements can be affirmative or negative. Affirmative easements grant limited rights to use the land for public purposes, such as hiking, fishing, or horseback riding. Such easements can be used selectively to obtain public access to certain portions of private lands for trails or water-based recreational facilities. In contrast, negative easements restrict the owner's use of the property. They may or may not allow public access. For example, an agricultural easement requires that the land be kept in some sort of agricultural production. A scenic or historic easement could require a property owner to maintain the scenic or historic quality of the land or structures. This type of easement can be effective in maintaining a municipality's visually attractive roads.

Conservation easements, which require a landowner to preserve important natural resources on the property, can be beneficial to both the landowner and the Township. Agricultural preservation easements are an important tool in preserving farm-



Worcester crops in bloom

Photo: Scott Rothenberger

land — and farming as a way of life — in Worcester Township. Easements are a flexible method of accomplishing preservation goals at a lower cost than outright acquisition.

PURCHASE OF DEVELOPMENT RIGHTS

If the municipality is interested only in protecting the land or some designated features of a property, then this method of acquisition of partial interests rather than full fee title in land is very effective. In essence, a municipality can preserve significant natural, scenic, historic, or cultural resources by purchasing a landowner's right to develop the property or otherwise alter the character of the features that are deemed worthy of protection. If public access is also desired, the agreement can provide for the purchase, lease, or donation of the necessary right-of-way. The purchase of development rights is often coupled with a conservation easement to ensure that the resources will be adequately protected.

EMINENT DOMAIN

Eminent domain is the condemnation of land for a public use by due process of law. It requires a clear declaration of the public purposes for which the land is being condemned and the determination of

a fair market value for the property. Before exercising the right of eminent domain, a municipality will study the necessity of obtaining the particular site and the feasibility of acquiring it by other methods. Only if all other methods fail and the property is essential to an open space system will eminent domain be considered.

LAND TRUSTS AND CONSERVANCIES

Land trusts and conservancies are private non-profit organizations that work to further their conservation mission by soliciting donations of land and grants to fund acquisition projects. Administration and management of the land are usually the responsibility of the organization. Private non-profits have an advantage in that they can often move faster than a government agency to acquire property. Often a public-private partnership is formed whereby the private agency acquires land and then resells it to a government agency at a later date.

When conservation groups work with private landowners to conserve their land, provisions for public access may or may not be included. For this reason, a municipality should work closely with these organizations and landowners where public access is a goal. In this way, conservancies can function as an additional method of acquiring open space to benefit the township.

LAND EXCHANGES

This method involves the exchange of land between a landowner and the township, county, or a land trust to obtain mutual advantages.

VOLUNTARY AGREEMENTS

Voluntary agreements can be established between government agencies and owners of agricultural lands, industrial holdings, and utility lands for various public purposes. For example, a utility company might permit the use of a powerline right-of-way for a trail.

RIGHT OF FIRST REFUSAL AND PURCHASE OPTION

These methods involve an agreement specifying that the land may be acquired by the municipality at a future date. A right of first refusal provides the municipality with the option to match an offered purchase price within a specified time period if a landowner receives another offer. A purchase option establishes the municipality's right to purchase the land by a specified date at a specified price. Both a right of first refusal and a purchase option can be either donated or sold to the municipality.

LIFE OR TERM ESTATES

This technique involves the acquisition of land with certain restrictions attached to the deed. A municipality may be better able to negotiate the purchase of property if certain interests in the land are reserved for the benefit of the landowner. For example, a municipality can purchase land with all rights of ownership conveyed except the right to occupy a house or a portion of the property for a specified term (usually 25 years) or until the death of the landowner. This allows the landowner to remain on the land and secure the property for the municipality, usually at a reduced price because of the delay in obtaining possession. Property can also be donated to the municipality with the reservation of a life estate for the owner.



View from Valley Forge Road over farmland

Photo: MCPC



View across open lands from Hollow Road to Wentz UCC Church

Photo: Laura Caughlan

RECOMMENDATIONS

With these various acquisition methods in mind, the following sections describe which acquisitions Worcester Township would like to pursue to achieve the goals of this plan.

NATURAL RESOURCE PROTECTION

Preserving ecologically important lands protects waterways and stream quality, conserves plant and animal habitat, and provides areas for groundwater recharge. It also helps preserve the township's rural character. It is Worcester Township's intention to protect all of these lands via land use controls, such as riparian corridor protection ordinances (see Chapter 15). In addition, larger blocks of natural resource-rich lands should be preserved for public access and greater control over land management wherever possible. The Township's acquisition strategy for natural resource protection will focus on the following key areas and methods:

- The Zacharias Creek corridor
- The high-priority rural preservation areas identified in the 1995 Open Space Plan: Bean Road, Western Farmlands, Evansburg Woodlands, Lo-

DONATIONS AND BARGAIN SALES

These methods of acquisition involve obtaining land at less than its full market value. Receiving donations of land or easements is the least expensive way for a municipality to obtain or protect land and can, in some instances, be a wise approach for a landowner to take to directly benefit from tax incentives and the shelter effects of charitable donations. If a full donation of land is not possible, or if the landowner has an immediate need for cash, then a partial donation using a bargain sale might be an alternative. By selling land at a price that is less than its market value, a landowner can still receive tax benefits based on the difference between the fair market value of the land and its actual sale price. The primary benefit of these techniques is that a municipality acquires land at a lower cost while the seller obtains tax advantages.

LIFE INSURANCE

In this arrangement, the Township purchases a life insurance policy on the landowner. The Township pays the premiums on the policy. Upon the death of the landowner, the Township receives the land and the heirs receive the life insurance benefits. This amounts to a life estate on an installment payment plan, but the term is indefinite. The Township could end up with land at little expense while the heirs receive the full value of the policy.



A cow in a Worcester pasture

Photo: Scott Rothenberger

cust Corner / Center Point Farmlands, Berks / Weber Road Farmlands, and Stony Creek Farmlands

- The higher value areas located on the Final Composite of Vulnerable Regional Conservation Resources, Open Space Proximity, & Habitat Corridors map, Figure 6 - 16
- The higher value areas located on the Final Composite of Vulnerable Township Conservation Resources, Open Space Proximity, & Habitat Corridors map, Figure 6 - 17
- Work with like-minded organizations and agencies
- Any donations of land for natural preservation, including donations offered by developers as part of the land development process
- Lands along or near Evansburg State Park and Peter Wentz Farmstead
- As more site-specific natural resources information becomes available, additional lands that are found to be valuable for natural or cultural resource protection

These areas are intended to be preserved as much as possible using a combination of methods, including but not limited to acquisition of these key resource areas. Non-acquisition methods the township intends to investigate and/or use are outlined in the following chapter.

AGRICULTURAL PRESERVATION

From its earliest days, Worcester has been a community dominated by farming. A combination of excellent agricultural soils, stable family-run farms, and preservation-minded local officials resulted in Worcester entering the 21st century with many of its large farms still intact. In addition, there are many smaller farmed parcels (5 to 50 acres), including horse farms.

The public meeting held in November 2004 identified at least one dozen large farms (greater than 50 acres) in Worcester and almost 50 smaller ones. However, the pressure of development is daily taking its toll on these farms. Worcester has 143 acres of preserved farmland, but hundreds of additional acres could be preserved if funding were available. With this background in mind, Worcester is focusing on agricultural resources as one of the significant preservation goals of its open space program.

In order to spread the Township resources as far as possible, County and State money should be used as often as possible to preserve properties that qualify and rank highly in the State and County programs. Currently, nine farms are active applicants in these programs. Worcester has a history of successful partnerships with the State and County to preserve such farms. Since 1999, the Township has had an Open Space Coordinator who works with the County and land preservation organizations to ensure that landowners understand the opportunities for farmland preservation.

When preserving a farm, whether with or without State and County funds, unfarmed portions of the farm should be evaluated for their potential to meet other Township goals, such as natural resource preservation, historic preservation, scenic views, or trail and greenway connections. Even portions of farmed land could, in some instances, be evaluated and preserved for those other purposes.

Land preserved for agricultural purposes must continue to be farmed and most often will remain in private ownership. The Township recommends that all farmland shown in Figure 10 - 3 be targeted for some form of farmland preservation.



Aerial view of Merrymead Farm

Photo: Scott Rothenberger



Spring view across Merrymead Farm and neighboring farms

Photo: Scott Rothenberger

HISTORIC PRESERVATION

Figures 4 - 12 and 4 - 13 indicate just some of the many properties that could be valuable for historic preservation. It is important to note that many of the properties identified as containing important historic resources are also important natural resource and agricultural lands. There are a variety of methods to preserve a historic resource, and the method of preservation will vary based on ownership goals and resources available. Preservation for historic value can often best be done via land use controls.

Considering overall value and immediate threat, and remembering that acquisition can include easements or other methods, the most immediate acqui-

sition actions by the Township or others should be regarding the following:

- Historic, agricultural, or natural resource properties adjacent to existing historic properties, especially those that would expand or buffer those historic properties. Lands around the Peter Wentz Farmstead and Evansburg State Park are the most obvious example, but this is also meant to apply to other properties as well.
- Any of the resources shown on the maps of historic resources, Figures 4 - 12 and 4 - 13, which are threatened by demolition or collapse.
- Any resource listed on or eligible for the National Register.
- Work with like-minded organizations and agencies.
- Any of the resources shown on the maps of historic resources, Figures 4 - 12 and 4 - 13, which cannot be preserved by a non-acquisition method.
- Any historic resources, especially any of the resources shown on the maps of historic resources, Figures 4 - 12 and 4 - 13, which are located on a property being considered for preservation for other purposes (i.e. a farm or a natural preserve).
- As more specific information becomes available about certain properties and their potential historic value, the Township may decide that preservation is desired for a resource that is not already mentioned here.

SCENIC RESOURCES

Figure 4 - 11 highlights some of the most scenic resources in the township. The Township recommends the following acquisitions to meet this goal:

- View easements over land along the view to downtown Philadelphia.
- View easements over land along the view to the Skippack Creek valley and the Perkiomen Creek valley.
- Scenic easements on properties along scenic roads in the township.
- Land or development rights that would preserve scenic resources.



An old Worcester barn

Photo: Susan Caughlan



View of Zacharias Creek from Hollow Road to Wentz UCC Church Photo: Laura Caughlan

PARKLAND CREATION AND EXPANSION

The Township has begun to create a park system, but parkland accessibility for all residents can be improved with acquisitions and expansion in various portions of the township.

The following are the primary parkland creation and expansion priorities:

- The Fairview Village area, which has a significant concentration of the township's population, has no centrally located, pedestrian-accessible parkland. The Township would like to acquire and develop one or more parks in this area.
- Nike Park is currently undeveloped but could serve as an important link in cross-township trails.

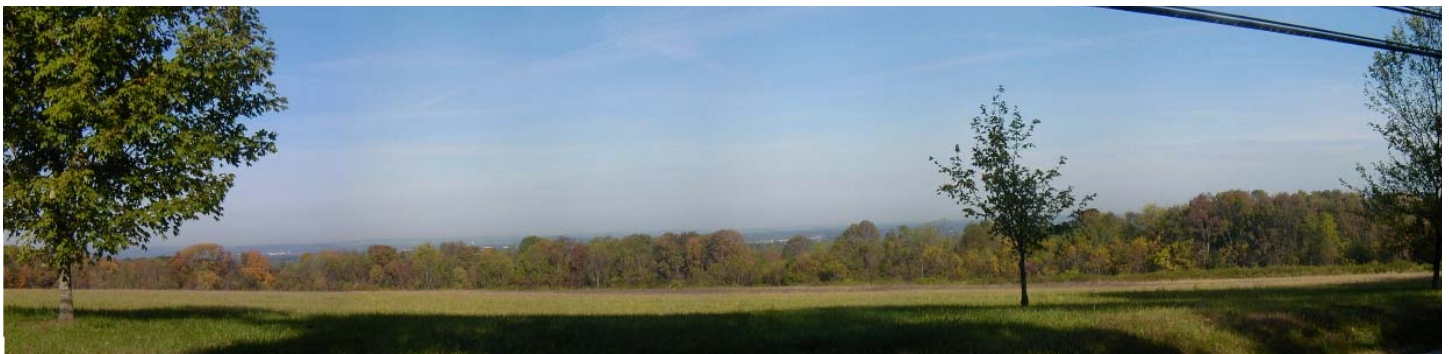
The Township would like to acquire rights to land to the north and west of this property which might be valuable for future pathway connections.

- The Township will continue to accept land offered for donation through the land development process to be used for public active or passive recreation.
- The Cold Spring area is underserved, and existing parkland should be expanded or supplemented.
- The Township would like to provide parkland accessible to the Milestone subdivision and the nearby residential areas.

TRAIL AND GREENWAY CREATION AND DEVELOPMENT

Figure 11 - 4 highlights the trail recommendations from Chapter 11 and Figure 11 - 5 illustrates the implementation priorities for the various trail segments. The most important acquisitions are as follows:

- Acquisitions recommended in the Community Greenway Plan
- Any remaining easements or land purchases necessary to complete the pedestrian and equestrian trail from Evansburg State Park to Heebner Park
- Any remaining easements or land purchases necessary to complete the pedestrian and equestrian trail from Heebner Park to Nike Park
- Upon completion of a feasibility study of a trail from Heebner Park to Peter Wentz Farmstead, any easements or land purchases necessary to complete the trail as recommended in the feasibility study



Scenic view from Valley Forge Road over the D'Lauro Farm

Photo: MCPC



View of a field near the Zacharias Creek Photo: Laura Caughlan

- Pursuit of license agreements for trail use and construction on PECO lands which coincide with the trail network shown in Figure 11 - 4, followed by construction of various segments of the pathway network on PECO lands
- Accepting donations of land or easements for use as part of the trail network, including donations offered by developers to connect their new subdivision to the township network

Longer term acquisition items for the pathway network include:

- Easements or land purchases necessary to implement the Worcester segment of the Liberty Bell and Powerline Trails
- Easements or land purchases to expand equestrian trails in the township
- Any remaining easements or land purchases necessary to complete the following pedestrian and equestrian connections:
 - Ballard Wolffe Park in East Norriton to Nike Park
 - Township Line Road to the Liberty Bell Trail
 - Connection to North Wales Road access to Norristown Farm Park
 - Fairview Village to Evansburg State Park
 - Nike Park to the eastern edge of the township
- Any remaining easements or land purchases necessary to complete the remaining portions of the pedestrian and equestrian routes throughout the township

ACQUISITION FUNDING

Open space can be acquired in many ways, including the purchase or donation of development rights, the purchase or donation of conservation easements, and the fee-simple purchase or donation of the township's most important lands. These have been described at length in Chapter 14. But in order to carry out acquisitions other than donations, there must be funding. There are many sources for funding, each with a certain array of funding or acquisition methods. Most of the funding sources for acquisition are described below.

FUNDING SOURCES

In addition to the funds allocated through the County Open Space Program, Worcester can look for funds from a variety of sources including grants, general revenue funds, bond issues, and donations (of cash, materials, or labor).

Worcester will pursue other grants available from Montgomery County, the Department of Conservation and Natural Resources (DCNR), and others. These grants can be used in conjunction with the county's Open Space grants to help defray the cost of the township's match. To further leverage funds and preserve more acreage, the township will work with conservation organizations such as Montgom-



Heyser Field

Photo: Susan Caughlan

ery County Lands Trust, which has already assisted with the preservation of over 200 acres in Worcester. The following section contains a description of possible grant sources.

MONTGOMERY COUNTY OPEN SPACE GRANTS

In 2003, a referendum to fund open space and green infrastructure projects was passed in Montgomery County. Known as the Green Fields/Green Towns Program, this funding was allocated to municipalities, private non-profit conservation organizations and the county to preserve more open space and enhance the livability of existing communities throughout the county.

Worcester is eligible to receive a total of \$871,889 for open space acquisition and enhancement. This grant requires matching funds equal to 20% of project costs from the municipality. The county grants come with several conditions. The most important condition is that any land purchased with grant money must be permanently preserved as open space or for active recreation. Another condition is that Worcester must complete and adopt an Open Space Plan. This plan must be approved by the county's Open Space Board before grant money can be disbursed.

MONTGOMERY COUNTY FARMLAND PRESERVATION PROGRAM

The Farmland Preservation Program purchases agricultural easements from productive farms in Mont-

gomery County. Once the rights are sold, the land must remain in farming in perpetuity. Worcester has already successfully partnered with the county to preserve three farms under this program. Because of the historical importance of farming in Worcester, and because the township still has many active and undeveloped farms left, the township has a volunteer Open Space Coordinator whose mission is to work with farm owners who are interested in preservation to maximize their success in the program. In 2006, nine Worcester farms are active applicants in the program.

PENNSYLVANIA DEPARTMENT OF CONSERVATION & NATURAL RESOURCES (DCNR)

DCNR annually awards about \$30 million in planning, acquisition, and development grants for parks, recreation, rivers conservation, trails, greenways, and protection of open space and critical natural areas. Most DCNR grants require a 50/50 match. DCNR provides pre-application workshops to assist applicants in the preparation of their application forms.

A priority goal of these programs is to develop and sustain partnerships with communities, non-profits, and other organizations for recreation and conservation projects and purposes. With this in mind, the Community Conservation Partnerships Program (C2P2) was established. It is a combination of several funding sources and grant programs, including the Commonwealth's Keystone Recreation, Park, and Conservation Fund (KEY 93, described below), the Environmental Stewardship and Watershed Protection Act (Growing Greener, also described below), Act 68 Snowmobile and ATV Trails Fund, the Land and Water Conservation Fund (LWCF), and the Recreational Trails component of the Transportation Equity Act for the Twenty-First Century (TEA-21).

PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)

The Growing Greener program has funded efforts to clean up Pennsylvania's rivers and streams, reclaim abandoned mines and toxic waste sites, invest in new alternative energy sources, preserve farmland and open space, and develop watershed restoration programs. Thus far, Growing Greener has generated nearly \$1.50 in matching funds for the environment for every \$1.00 in state money. As the Growing Greener program evolves, it will focus on brownfield redevelopment, farmland and open



Merrymeade Farm in the morning fog

Photo: Scott Rothenberger



Woods in Evansburg State Park near Grange Avenue

Photo: Laura Caughlan

space preservation, water quality improvements, enhanced state and community parks, and an upgraded fish and wildlife infrastructure. Growing Greener II will accomplish these goals while making critical investments in community revitalization and the promotion of the use of clean energy.

KEYSTONE RECREATION, PARK, & CONSERVATION FUND

The Keystone Recreation, Park, and Conservation Fund Act was signed into law in 1993. It directs a portion of the state's Real Estate Transfer Tax to the Keystone Fund, establishing a dedicated and permanent funding source for recreation, parks, conservation, and other programming. Grants from this program require a minimum 50% match from the recipient municipality or nonprofit organization. As of 2002, \$144 million had been granted to more than 2,100 projects. The demand on the Keystone Fund already outstrips resources by a 4 to 1 margin.

PENNSYLVANIA DEPARTMENT OF COMMUNITY & ECONOMIC DEVELOPMENT (DCED)

The mission of DCED is "to foster opportunities for businesses and communities to succeed and thrive in a global economy, thereby enabling Pennsylvanians to achieve a superior quality of life." There are several assistance and grant programs available to Pennsylvania municipalities. Often, local economic and community revitalization efforts are supported by the implementation of green infrastructure and open space plans.

PENNSYLVANIA HISTORICAL & MUSEUM COMMISSION (PHMC)

Many communities value their historic resources and work to preserve them for future generations. These resources can then be integrated into the open space network and cultural amenities of that community to enhance local image and aesthetics. The PHMC offers several programs that aid municipalities in these efforts.

- Certified Local Government Grant Program - Provides funding for cultural resource surveys, national register nominations, technical and planning assistance, educational and interpretive programs, staffing and training, and pooling CLG grants and third-party administration.
- Keystone Historic Preservation Grant Program - Provides funding for preservation, restoration, and rehabilitation of historic resources.
- Pennsylvania History and Museum Grant Program - Funding under this program is designated to support a wide variety of museum, history, archives and historic preservation projects, as well as nonprofit organizations and local governments. There are 10 types of grants.

DELAWARE VALLEY REGIONAL PLANNING COMMISSION (DVRPC)

TRANSPORTATION AND COMMUNITY DEVELOPMENT INITIATIVE

The TCDI program is intended to assist in reversing the trends of disinvestment and decline in many of the region's core cities and first-generation suburbs by:

- Supporting local planning projects that will lead to more residential, employment, or retail opportunities
- Improving the overall character and quality of life within these communities to retain and attract business and residents, which will help to reduce the pressure for further sprawl and expansion into the growing suburbs
- Enhancing and utilizing the existing transportation infrastructure capacity in these areas to reduce the demands on the region's transportation network
- Reducing congestion and improving the transportation system's efficiency

CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM (CMAQ)

This program seeks transportation-related projects that can help the region reduce emissions from highway sources and meet National Clean Air Act standards. The program covers the DVRPC region of



View across fields from Hollow Road

Photo: Laura Caughlan

Bucks, Chester, Delaware, Montgomery, and Philadelphia counties in Pennsylvania and Burlington, Camden, Gloucester, and Mercer counties in New Jersey.

TRANSPORTATION ENHANCEMENT PROGRAM

Transportation Enhancements is a set-aside of federal highway and transit funds, mandated by Congress in the Transportation Equity Act for the 21st Century (TEA-21) for the funding of "non-traditional" projects designed to enhance the transportation experience, to mitigate the impacts of transportation facilities on communities and the environment, and to enhance community character through transportation-related improvements.

NATIONAL PARK SERVICE RIVERS, TRAILS, & CONSERVATION ASSISTANCE PROGRAM

The program offers technical assistance only to non-profit organizations, community groups, and local or state government agencies. Rivers and Trails technical staff offers the following types of assistance for recreation and conservation projects:

- Building partnerships to achieve community-set goals
- Assessing resources
- Developing concept plans
- Engaging public participation
- Identifying potential sources of funding
- Creating public outreach

- Organizational development
- Providing conservation and recreation information

PECO ENERGY GREEN REGION OPEN SPACE GRANT PROGRAM

PECO Energy, a subsidiary of Exelon, is currently involved in several environmental partnerships, including "TreeVitalize" with DCNR, clean water preservation with The Nature Conservancy, and environmental education initiatives with the Schuylkill Center for Environmental Education and Green Valleys Association. Green Region grants are available to municipalities in amounts up to \$10,000. The grants can be used with other funding sources to cover a wide variety of planning and direct expenses associated with developing and implementing open space programs, including consulting fees, surveys, environmental assessments, habitat improvement, and capital improvements for passive recreation.

GENERAL REVENUE FUNDS AND BOND ISSUE

Worcester has the option of using general revenue funds for open space and recreation purposes. It also has the option of issuing a bond to pay for the costs of development rights acquisition, parkland, and park and trail development. The decision to



Skiptack Creek near Grange Avenue

Photo: Laura Caughlan



Merymead Farm, Valley Forge Road, and Central Schwenkfelder Church

Photo: Scott Rothenberger

pursue these options rests with the township supervisors after being advised by township administration and possibly by public referendum. A township land trust can be formed to administer funds and hold easements, freeing the township from dependence on the timing of funds from other sources.

DONATIONS

Worcester should encourage donations from individuals, businesses, and groups to help pay for parkland and other open space acquisition, park and trail development, and tree planting. The donations may be land, development rights, conservation easements, cash, materials, or labor. Worcester could organize special days during which local citizens and groups could gather to participate in implementing open space projects.

CHARITABLE FOUNDATIONS

Several private foundations are available to municipalities to assist with open space and cultural resources acquisitions. The most notable in the Delaware Valley are the William Penn Foundation and the Pew Charitable Trust.

LAND TRUSTS

Several local and regional land trusts can help municipalities with acquisitions or can make their own acquisitions to help a municipality meet its open space goals without the municipality taking ownership of the land or easement and incurring the responsibilities of ownership. The Montgomery County Lands Trust, the Natural Lands Trust, and the Heritage Conservancy are all active in local preservation efforts. In fact, the Montgomery County Lands Trust has already been instrumental in preserving over 200 acres in Worcester Township and continues to be a very valuable partner with the Township.

SUMMARY

Using the various acquisition methods outlined in this chapter, the Township would like to acquire lands and resources that are designated on the respective maps as high priority for the preservation of natural, agricultural, historic, scenic, and cultural resources in the township.



View across Merrymead Farm and neighboring farms

Photo: Scott Rothenberger



Springtime in a Worcester horse pasture

Photo: Scott Rothenberger

CHAPTER 15

RECOMMENDATIONS: NON-ACQUISITION PROTECTION METHODS

Acquisition provides the most control over land use, but it can come at a high financial cost. An important part of open space planning involves understanding and using preservation techniques that are not dependent on land or resource acquisition. The use of these non-acquisition methods of open space preservation may add to the public open space system, but they are more commonly used to preserve or protect vulnerable lands and resources that will remain privately owned. These tools typically involve land use controls but also include voluntary agreements with private landowners.

UPDATE THE MUNICIPAL COMPREHENSIVE PLAN

A municipal Comprehensive Plan provides the background and analysis and sets forth the strategies to accomplish certain goals that the municipality would like to achieve. The goals often include open space goals. In Pennsylvania, the Comprehensive Plan also provides some legal foundation for a municipality's actions, including land use regulations. But perhaps just as important, a Comprehensive Plan can point the staff, volunteers, and other resources of a municipality in the direction that its leaders would like them to go.



A Worcester cornfield along Skippack Pike

Photo: Susan Caughlan

WORCESTER'S PROPOSED ACTION

The Township is in the process of completing an update of its Comprehensive Plan. Upon adoption of the updated Plan, the Township can proceed with implementation strategies that will help achieve the open space goals of that plan and this Open Space Plan.

CONSERVATION SUBDIVISION

One way to preserve open space resources that would otherwise be destroyed or compromised during land development is to “design the open space first”; that is, identify the resources that are the most valuable from an ecological as well as cultural perspective and then group the homes or other buildings in a way that preserves those areas as permanent open space. The overall density of the site (permitted number of homes) is usually the same as permitted under conventional development. The homes are located on smaller lots, but are adjacent to open space often to both the front and the rear. The open space areas can preserve historic landscape character, natural features, scenic views, and farmland, as well as provide proper landscape context for historic buildings. Open space in these types of developments can provide important links in the overall township greenway system. The open space may be dedicated to the township, or it may be owned privately or by a community association.

Through conservation subdivision, 50% to 70% of a site can be preserved as open space. Fragmentation of large parcels into a multitude of individual lots is avoided and the open space can be managed under a uniform management plan. Some of the open space may be located in the developed portion of the site in such a way that the homes are designed around neighborhood greens. While this type of development benefits the township by preserving natural and cultural resources, it also benefits the developer by lowering grading and infrastructure costs (reducing road and utility lengths and stormwater facilities). Homes adjacent to permanent open space often have a higher value as well, benefiting the developer, the township (in tax revenue), and the homeowners.

WORCESTER'S PROPOSED ACTION

Worcester has obtained the assistance of the Natural Lands Trust, through a grant from the Pennsylvania Department for the Conservation of Natural Resources, to revise its zoning and subdivision ordinances to incorporate the concepts of conservation subdivision. As of this writing, these new ordinances have been prepared and are being considered for adoption in early 2006.

PERFORMANCE ZONING

With performance zoning, the residential lot sizes are directly related to the extent of a site's natural features. When environmental features such as high-water-table soils, floodplains, and steep slopes exist on a site, the minimum lot size must be increased in order to allow for development while minimizing disturbance of the vulnerable resources. Sites with no environmental constraints or vulnerable resources can accommodate development on standard size lots, typically one to two acres. These provisions are incorporated into the zoning ordinance.

Performance zoning necessitates that the required minimum lot area be free of vulnerable resources. For example, a lot having 1.5 acres of vulnerable resources (floodplains, wetlands, etc.) in a district with a minimum lot size of 1 acre would need to be 2.5 acres ($1.5 + 1 = 2.5$) in size. This allows a portion of the lot to be used for residential purposes while preserving the vulnerable resource areas from disturbance.

In a zoning ordinance, performance zoning generally applies protection ratios to a wide range of vulnerable resources, such as floodplains, wetlands, steep slopes, soils, geology, and woodlands. The protection ratios are multiplied by the area of each vulnerable resource on the lot. This area is then subtracted from the total lot area to yield the net lot area. The net lot area must be equal to or greater than the required minimum lot size. For example, a proposed 3-acre lot containing 1 acre of floodplains, which has a 100-percent protection ratio, and 1.5 acres of steep slopes, which have a 50-percent protection ratio, would have a net lot area of 1.25 acres, as calculated below:

$$\begin{array}{rcl}
 1.50 \text{ (acres of steep slopes)} \times 0.50 & = & 0.75 \text{ acre} \\
 1.00 \text{ (acre of floodplain)} \times 1 & = & 1.00 \text{ acre} \\
 \hline
 & = & 1.75 \text{ acres} \\
 & & \text{of constrained land} \\
 3.00 \text{ acres (gross lot area)} - 1.75 \text{ acres (con-} & & \\
 \text{strained acreage)} & = & 1.25 \text{ net acres}
 \end{array}$$

Therefore, this lot would be permitted only if the required minimum lot size was 1.25 acres or smaller. Otherwise, the size of this lot would need to be increased in order to meet the minimum lot size requirement while providing for protection of the natural features of the site.



A small, picturesque riparian corridor in Worcester Photo: MCPC

WORCESTER'S PROPOSED ACTION

The Township's ordinances already remove floodplains, wetlands, steep slopes, and riparian corridors from the gross tract area before the minimum lot size is calculated. The Township will consider whether to add additional protected resources, such as woodlands, and whether to consider soils and geology for performance zoning as well.

NATURAL RESOURCE PROTECTION ORDINANCES

There are many ordinances that can protect natural features such as floodplains, stream corridors, wetlands, groundwater, steep slopes, and woodlands. As previously mentioned in the audit in Chapter 2, Worcester already has several natural resource protection ordinances. The following resources can also be protected by ordinance:

WOODLANDS

Protection of existing trees and woodlands can be accomplished with woodland preservation ordinances. Some ordinances provide minimum standards that must be followed during construction for trees that will remain. Other ordinances allow developers to install fewer street trees, buffers, or individual lot trees if existing trees are preserved.

Clustering and conservation subdivision zoning ordinances are the most common method to help preserve woodlands. By allowing a developer to move housing onto smaller lots, woods can be preserved.

GROUNDWATER PROTECTION

There are several ways to protect groundwater quality. The first involves stormwater ordinances that include provisions for groundwater recharge and the removal of pollutants from stormwater runoff. Comprehensive stormwater ordinances also require the identification of "hotspots." These "hotspots" are land uses that involve certain hazardous materials. The stormwater ordinance imposes more stringent runoff containment measures that help prevent the release of hazardous material into waterways or groundwater via stormwater.

A second method of groundwater protection involves the identification of protection areas around public wells. Wellhead protection areas consist of the surface area around a well which directly con-

tributes to recharging the well. Wellhead protection ordinances regulate the contribution area by restricting the uses permitted, limiting the intensity of development, and regulating land management techniques. A municipality can also impose design standards that would not allow, for example, hazardous material containment structures (or land uses that utilize hazardous materials) in the protection area to limit potential groundwater pollution.

A community-wide wellhead protection ordinance is applicable to only a few locations in Worcester, given the limited number of public water supply wells in the township. Should any new developments propose a community water system using groundwater, the Township can consider developing standards for a wellhead protection ordinance.

SCENIC ROADS AND VIEWS PROTECTION

Communities can reduce the visual impact of new development along scenic roads and preserve important views by encouraging or requiring homes to be located in a way that preserves existing views. For example, the zoning could allow a smaller lot size if homes are located in wooded areas or behind ridgelines. The community could also require homes that will be located along existing roads to have a larger lot size and a larger setback from the road, or screening vegetation between the road and the home, such as a hedgerow, which is a typical rural element. In the case of longer views across properties, a view ordinance could limit development and plantings to certain parts of a site out of the way of the view, or it could include height restrictions, or both.

A municipality can also try to work with developers to design the development so as to minimize its impact on scenic viewsheds. This is a consideration that can be part of the requirements of conservation subdivision design.

Given that many scenic views cross municipal borders, scenic roads and view protection efforts would also benefit from planning among multiple municipalities.

WORCESTER'S PROPOSED ACTION

The Township will consider developing an ordinance or modifying existing ordinances to protect the scenic views and roads identified in this plan. In the future, and possibly working with neighboring municipalities, Worcester can conduct a more detailed viewshed and vista study to identify additional sites.

Protection of the scenic roads and views will involve considering increased lot and building setbacks from tract boundaries, protection of the identified scenic area as part of preserved open space in conservation subdivisions, and determining development and planting restrictions for scenic vistas.

TRANSFER OF DEVELOPMENT RIGHTS

This method can preserve rural areas by transferring some development from rural areas to more appropriate areas. With a transfer of development rights (TDR) program, rural landowners can sell their development rights to developers for use in township-approved development areas, or the township can act as a "bank" for development rights, purchasing



Scenic view from Hollow Road of the Heebner Farm

Photo: MCPC



A scenic view along Water Street with a historic farmhouse and barn

Photo: MCPC

them when development threatens a rural parcel and reselling them to a developer when an appropriate site is to be developed.

For example, a rural landowner with 50 acres might normally be allowed to subdivide this parcel into 20 2-acre lots. Instead, with a TDR program, the landowner can sell the right to build some or all of these 20 lots to a developer. The developer can add those units to the number of units normally allowed to be built in an area approved by the Township for denser development. The rural landowner, who has been paid for these development rights, is then required to deed restrict the land against any future development.

A TDR ordinance is often used as a tool for agricultural and/or open space protection, although it can protect any important resource. In a TDR program, local governments approve transactions and may also monitor easements. Some communities have created "TDR banks" that buy development rights with public funds and either retire them or re-sell them to developers and other private landowners. Other communities have contracted out the easement monitoring aspect of the program to a local land trust.

The use of TDRs across township borders is something that can be investigated in the future. This may be useful for the transfer of residential development rights to the region's existing cities, towns, and villages. This will help to preserve open space

and protect rural character in the sending municipalities while encouraging economic development in areas better suited for this type of land use.

WORCESTER'S PROPOSED ACTION

The Township is currently working on its first TDR transaction to transfer residential development rights from one parcel to another parcel, thereby preserving one parcel as open space and increasing the density on the other. The Township has included a limited TDR provision in its conservation subdivision ordinances.

Worcester will also consider pursuing discussions with its neighbors regarding multi-municipal TDRs.

REQUIRING OPEN SPACE IN DEVELOPMENTS OR A FEE IN LIEU OF OPEN SPACE

Municipalities can require developers to provide open space through zoning and/or subdivision ordinances. Zoning ordinances can specify the percentage of required open space in specific zoning districts as well as other criteria relevant to the maintenance of common open space. The municipality cannot require the open space to be dedicated to the township or open to the public or to include specific recreational facilities. However, the community can require that the land meet specific standards, such as being flat, open land suitable for playing fields.

Subdivision ordinances can require developers to provide open space that may be dedicated to the Township. If a developer chooses not to provide the land, the ordinance can require fees in lieu of land. An adopted recreation plan must be in existence to



A tot lot in the Sunnybrook development

Photo: Susan Caughlan



Open space along Stony Creek in the Sunnybrook development - preserved due to zoning requirements

Photo: Susan Caughlan

support this ordinance and must follow the provisions in the Pennsylvania Municipalities Planning Code. The community must decide whether it prefers fees in lieu of open space, to create larger central parks for a number of neighborhoods, or smaller scale open space within each development. Of course, the community can also request a combination of both — perhaps a small park for the development and a smaller fee in lieu of the rest of the open space to help provide for part of a larger community park.

Requiring developers to provide open space allows municipalities to meet the needs of new residents without building additional municipal parks. The choice of requiring open space or a fee in lieu of the land allows a community flexibility in establishing its open space priorities.

WORCESTER'S PROPOSED ACTION

The Township already has limited requirements for open space in some zoning and subdivision ordinances and will explore the fee-in-lieu option as a way to develop an extensive and inclusive open space and park system.

HISTORIC PRESERVATION ORDINANCES

While not directly related to open space preservation, historic preservation ordinances can help preserve historic properties that add to the character of an area. Worcester's many historic homes and other structures help define it as a rural community and provide a sense of place and identification with the past that promotes community spirit.

There are a number of techniques that communities can use for historic preservation. Communities can amend their building codes to require a review before demolition permits are issued. This method delays demolition and allows for community input. Communities can also amend their zoning ordinance to encourage historic preservation.

Another way of encouraging historic preservation is the creation of a village ordinance that provides for preserving existing buildings and developing infill structures or restricts the uses within the district. New uses that are incompatible with historic areas, such as gas stations, are not permitted in these districts. The zoning ordinance can also encourage historic preservation by allowing historic buildings to have more uses than normally permitted in a particular district. For example, apartments, bed and breakfast establishments, or offices might be permitted in historic homes located in a single-family detached residential district.

A third possibility is that communities can create historic districts, with the approval of the Pennsylvania Historic and Museum Commission. A historic district is an honorary distinction and can help property owners restore historic buildings with tax credits. However, once a historic district is created, townships or boroughs can establish more stringent



Farmhouse next to Wentz UCC Church Photo: Donald C. Atkinson

control over the design and preservation of facades. The township or borough must create a Historic Architectural Review Board to review proposed changes to historic buildings.

WORCESTER'S PROPOSED ACTION

One of the township's primary goals is to protect and enhance the existing villages. The township is expecting to investigate a new village zoning district that would provide for the reuse of existing buildings, permit mixed uses, and include design standards for the preservation of village character.

The Township has created a Historic Structures Preservation Committee to investigate various methods of preserving the township's historic resources.

The Committee will consider proposing a demolition permit review process as a technique to help protect or document buildings that are proposed to be demolished. The Committee will also investigate the establishment of historic districts and historic architecture preservation ordinances in the township.

The Township will continue to work with local historic preservation organizations to coordinate the efforts and resources of each.

AGRICULTURAL SECURITY AREA

Agricultural Security Areas, although not a direct means to preserve agricultural land, help to make farming more profitable and therefore more viable, and thereby protect it from conversion to residential development.

State law allows groups of farmers, with municipal approval, to create agricultural security districts, which confer three distinct benefits on residential land owners.

First, farms in agricultural security areas are protected from new ordinances that would restrict normal farming operations or define farms as nuisances. However, the farm operation must use acceptable farming practices that do not threaten the public health, safety, and welfare.

Second, condemning land in agricultural security areas is more difficult. Land condemnations by the Commonwealth or local municipal authorities, school boards, and governing bodies must be reviewed and approved by a state agricultural board before any action can be taken.

Third, farms in an agricultural security area can apply to sell development rights to the county and state. When development rights are sold, farmers receive the difference between the development value of their property and the farm value of their property. In return, a conservation easement is placed on the property, permanently restricting any non-farm development on the property. This program permanently preserves the farm and allows the farmer to remain on the land, pass it on to heirs, or sell the land to another farmer.

WORCESTER'S PROPOSED ACTION

The Township will continue to support the growth of the Worcester ASA by educating landowners about the benefits of this program. Worcester's Open Space Coordinator will encourage farmers in the ASA to apply to the state Farmland Preservation Program. Particular attention will be given to those farms that scored highest in the analysis for farmland preservation as mentioned in Chapter 10.



Merrymeade Farm

Photo: Scott Rothenberger

AGRICULTURAL ZONING

In communities that have a significant portion of land devoted to agriculture, this type of zoning can be useful to help preserve land for farming. Generally, a minimum lot size of 10 acres is required, consistent with the state's Act 319 program, which allows farmland to be assessed at a lower tax rate. Often there are anti-nuisance clauses written into the ordinance to protect farmers from complaints from neighbors who are unaccustomed to farm practices.

A variation of this type of zoning allows farmers to sell off small lots from their landholdings for residential purposes. This allows the farmer to receive some financial gain from limited development while continuing to make a living from the land. An acceptable method often used to regulate density is a sliding-scale ordinance, which sets a figure for the amount of dwellings or lots to be subdivided depending on the tract's overall size. As the acreage increases, more lots are permitted. For instance, if a tract of land is under 15 acres, one lot is permitted to be subdivided; if the tract is between 15 and 40 acres, 2 lots are permitted; if the tract is between 40 and 80 acres, 3 lots are permitted to be subdivided, and so on.

Another variation uses the type of soils on the tract as a tool for figuring density. For instance, if the soils are prime agricultural or of statewide importance, the permitted lot sizes (min. 10 acres) would be larger than on those tracts of land with less sig-

nificant soils (min. 1 to 2 acres). The purpose of this type of regulation is to preserve the best farmland soils and keep them productive.

Successful agricultural-based zoning requires areas of prime and statewide importance soils and active farming. The zoning must be clearly related to protecting agriculture rather than overall rural character. If this nexus is not strong enough, the ordinance could be challenged.

WORCESTER'S PROPOSED ACTION

Worcester Township will seek to use all methods that will help to preserve agriculture in the township. If agricultural zoning is viewed to be legally defensible in Worcester, the Township will pursue it in order to preserve or create as much opportunity for viable agriculture as possible.

AGRICULTURAL LAND MITIGATION ORDINANCES

In this relatively new farmland protection technique, local governments can enact an ordinance to require developers of agricultural land to permanently protect one acre of agricultural land for every acre of agricultural land they convert to other uses. Typically, developers have the option of placing an agricultural conservation easement on farmland within the proposed development area or in another part of the municipality, or paying a fee to an agricultural protection fund.

WORCESTER'S PROPOSED ACTION

The Township will consider investigating the potential benefits and legal limits of this type of ordinance.

ZONING TO ENHANCE AGRICULTURAL VIABILITY

An agricultural protection zoning ordinance can designate areas in which farming will be encouraged and other land uses discouraged. Some ordinances restrict residential density, promote right-to-farm provisions, and authorize commercial agricultural activities, such as farm stands, which add to farm profitability. Agricultural protection zoning can stabilize the agricultural land base by keeping large tracts of land free of non-farm development, allow-



A horse pasture with a long, scenic view

Photo: Susan Caughlan



Tending to the land at Merrymead Farm

Photo: Scott Rothenberger

ing communities to conserve contiguous agricultural land. Maintaining a critical mass of farmland can help ensure that other industries vital to farming, such as feed suppliers, also can survive, helping to promote the regional farm economy.

Zoning that requires large lot sizes before horses are allowed on a property restricts such uses to fewer locations. Since horse farms are so prevalent and desirable in Worcester, zoning ordinances should be crafted to ensure that such uses are not discouraged.

Another tool is to alter the allowable uses in the zoning districts in and near prime agricultural areas to include businesses related to farm operations, such as food processing and distribution. This can allow farmers to efficiently contain all processes of production in and near the areas zoned for agriculture, and to locally produce value-added products that are more competitive in the marketplace.

WORCESTER'S PROPOSED ACTION

The Township will consider investigating the potential benefits and legal limits of this type of ordinance.

INCENTIVE ZONING

Incentive zoning can help to advance a community's physical, cultural, and social goals by requiring land developers to provide specific amenities and benefits in exchange for incentives, such as the expansion of permitted uses.

WORCESTER'S PROPOSED ACTION

For Worcester, this type of zoning might be used to encourage the preservation of historic resources and to promote appropriate development in villages. The Township will consider investigating the potential benefits and legal limits of this type of ordinance.

RURAL DEVELOPMENT GUIDELINES

Communities can adopt rural development guidelines that aim to protect natural resources, maintain rural character, and preserve open space. Rural subdivisions can be designed to "settle back" into the countryside to minimize the aesthetic impact to neighbors and passersby.

Conservation subdivision emphasizes the importance of identifying the open space system on a parcel prior to submitting any plan for subdivision. Once the open space system is identified, suitable areas for development can be delineated. Some additional development considerations that can help preserve rural character are:

- Minimize the clearing of vegetation and preserve important natural features.
- Retain stone walls, hedgerows, and other rural landscape elements.
- Avoid construction in open fields or on ridgelines.
- Reuse farm roads and country lanes whenever possible, rather than constructing new wide roads.
- Maintain or enhance scenic views.

WORCESTER'S PROPOSED ACTION

The Township has incorporated these guidelines into the conservation subdivision ordinances that have recently been adopted.



The Worcester Township Building

Photo: unknown

SUMMARY

There are many ways to protect the township's resources without acquiring land or resources. The township will pursue as many of these methods as possible and has already embarked on a few of those described here.

FUNDING

Non-acquisition methods must be carried out primarily by the Township on its own initiative and using its own resources. However there are a few sources for some funding for the research, analysis, and professional services involved with some of the non-acquisition methods described. Some sources also offer their own professional or technical support for free or at reduced rates.

MONTGOMERY COUNTY PLANNING COMMISSION

The MCPC offers a full range of planning services to municipalities in the county at a reduced rate. Typical services include plan preparation, drafting ordinances, professional planning advice, and special planning projects in the areas of community planning, open space and trail planning, environmental planning, transportation planning, site and landscape design, and graphic design. With this broad planning expertise, MCPC can facilitate any of the non-acquisition methods discussed in this chapter.

NATURAL LANDS TRUST

The Natural Lands Trust is a valuable resource for non-acquisition preservation methods. Recently NLT assisted Worcester in drafting conservation subdivision ordinances. NLT also provided mapping expertise for the preparation of the combined resources maps in Chapter 6 of this plan.



CHAPTER 16

IMPLEMENTATION

Implementation is the keystone of this open space plan. This plan has identified and examined the open space issues important to the township and has set ambitious goals for the preservation of open space, natural features, historic resources, and important linkages in Worcester Township. In this chapter, a list of prioritized actions is established to guide Worcester toward achieving its goals.

In the near term, implementation will principally involve two types of action: securing funds for the various types of acquisition strategies, and pursuing

the various non-acquisition actions outlined in the previous chapter for natural resource preservation, historic resource protection, trailway planning and development, and active recreation. The Township's most immediate efforts will focus on allocating the funding available to Worcester under the County Open Space Program, continuing to actively facilitate applications by township farmers to the state farmland preservation program, and enacting conservation subdivision ordinances. This will generally occur during the first phase of the Green Fields/ Green Towns Program ending in spring 2008.

Long-term actions will build upon these earlier efforts and will be implemented in the following five to ten years. Finally, if Worcester is to be successful in meeting the challenge of preserving significant amounts of its remaining open land, it must create a mechanism that is able to act in a timely fashion and is supported by adequate funding and the will of the residents.

IMPLEMENTATION STRATEGIES

Worcester is a historically rural and agricultural community that has been under increasing development pressure for many years. As a result, less than half of the township remains as open land or farms. Many historic resources remain, but their continued existence is threatened by the same development pressure. Unlike more developed communities, Worcester still retains the architecture of its natural landscape. Streams, woodlands, hillsides, and open fields are important components of the township's rural character which are at risk of being lost if these resources are not protected and development is not managed.

The challenge this plan addresses is how to retain the township's historic, natural, and rural character in the face of the development that will inevitably occur. The goals in Chapter 2 set the framework for

meeting this challenge. The chapters that follow provide the background and analysis of the various resources, as well as some focused attention on particular aspects, such as agriculture, trails, and greenways. The two major approaches to achieving the Township's goals, acquisition and non-acquisition methods, are discussed, and funding sources for those methods are identified.

The first goal aims to preserve high-priority natural, agricultural, and recreation open space lands as well as to conserve and buffer the historic and scenic resources of the township. The second goal, recognizing that some land inevitably will be developed, is to ensure that this development will preserve as much of the township's natural and cultural resources as possible. The third and fourth goals focus on the development of a network of trails and habitat corridors, connecting destinations and natural areas within and beyond the township.

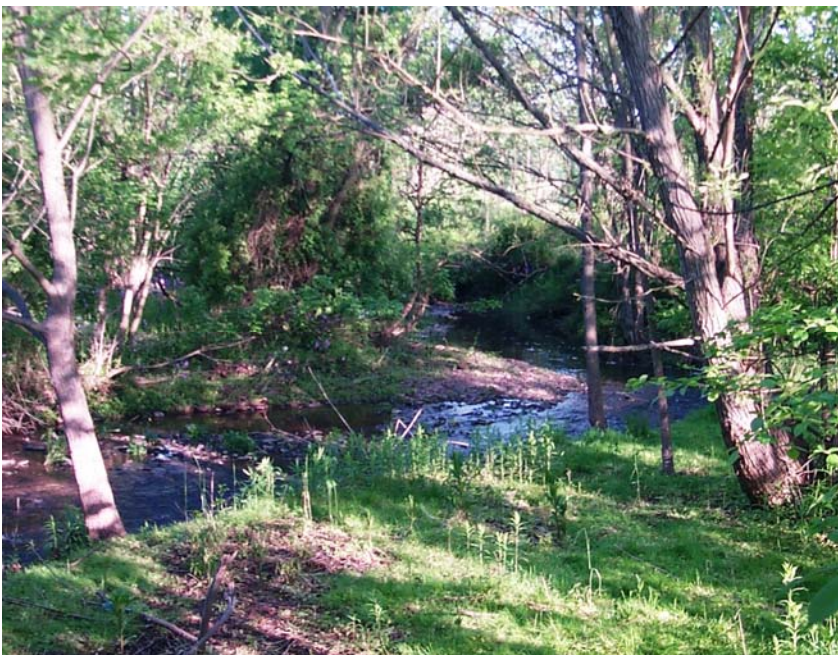
To meet these goals, the Township will consider a combination of the many strategies outlined in this plan, which can be summarized as follows:

Natural Resource Protection Strategies:

- Conservation subdivision
- Performance zoning
- Natural resource protection ordinances
- Transfer of development rights
- Acquisition of land or easements

Agricultural Preservation Strategies:

- Encourage further additions to the Agricultural Security Area
- Evaluation of farms for qualification to farmland preservation programs
- Open Space Coordinator working with landowners to apply to farmland preservation programs
- Zoning provisions to encourage and protect agricultural activities, including horse farms
- Transfer of development rights
- Performance zoning
- Conservation subdivision provisions to allow farming on open space land
- Investigate the potential of rural development guidelines
- Acquisition of land or easements



Preserved segment of the Zacharias Creek

Photo: MCPC



Commemorative plaque on the privately preserved Gerstemeier Farm

Photo: Susan Caughlan

Historic Resources Protection Strategies:

- Zoning provisions to encourage appropriate infill and new development in villages and other parts of the township
- Zoning provisions to encourage adaptive reuse of historic structures
- Establishment of a Historic Committee to consider and propose further actions by the Township
- Investigate establishment of historic districts
- Coordinate with other historic preservation organizations.



The Schierenbeck Farm, a candidate for preservation through the Farmland Preservation Program

Photo: Susan Caughlan

Scenic Roads and Views Protection Strategies:

- Ordinances to require buildings to be set back from scenic resources
- Conservation subdivision

Parkland Creation and Expansion Strategies:

- Conservation subdivision
- Ordinance requiring the provision of open space in new developments or a fee in lieu of parkland
- Acquisition of land or easements

Trails and Greenways Strategies:

- Conservation subdivision
- Ordinances to require or encourage trails and greenways to be provided
- Acquisition of land or easements
- Coordination with adjacent municipalities and county to plan and construct multimunicipal trails

Figure 16 - 1 indicates where these strategies would be implemented and Figure 16 - 2 indicates the various implementation areas of the township.

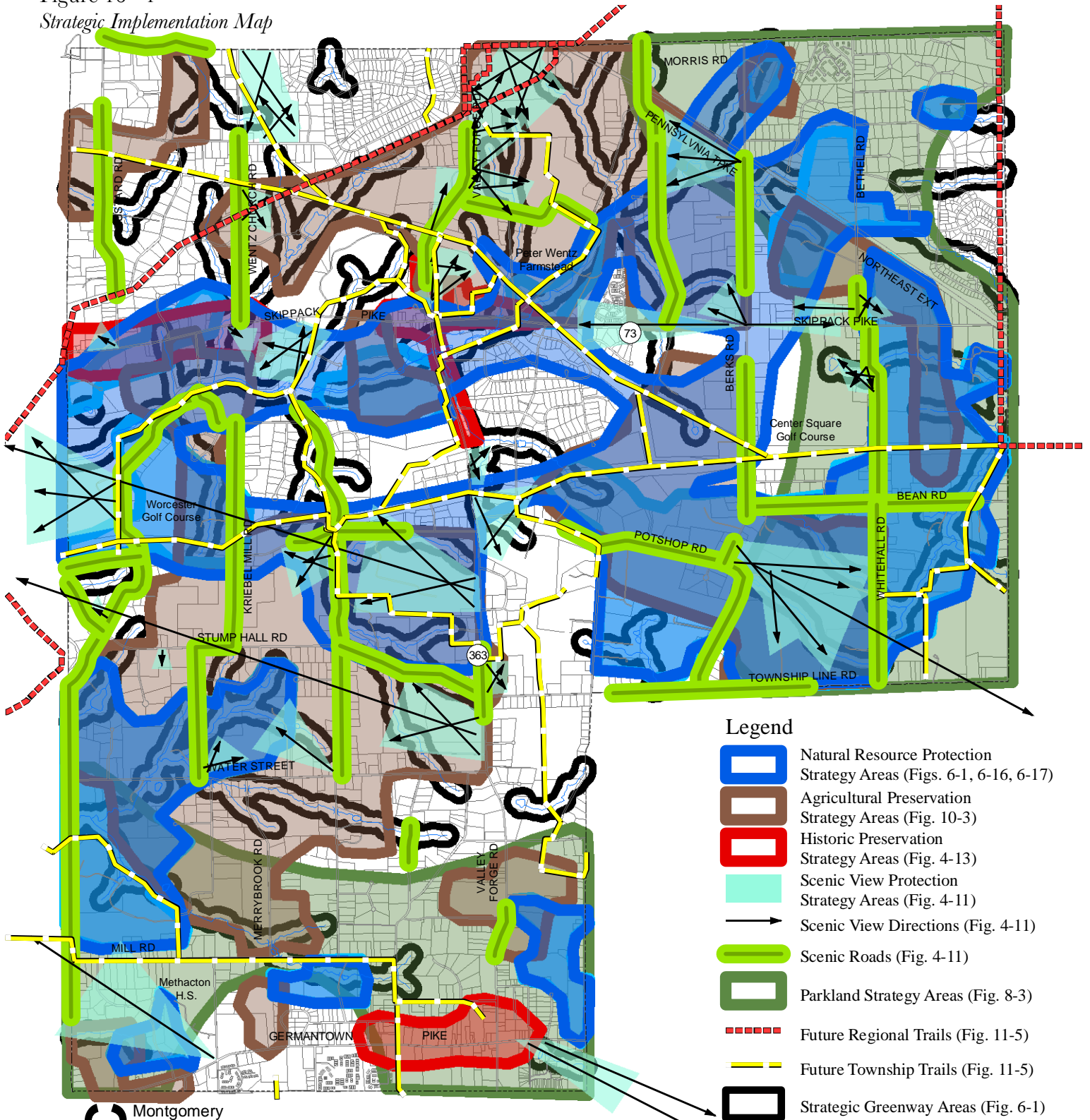
Worcester intends to take advantage of outside sources of funding to leverage its ability to use acquisition methods of various kinds. In addition, the Township will use non-acquisition methods to preserve significant amounts of natural open space resources and achieve a trail and greenway network. Non-acquisition methods will also be the primary means of preserving historic and scenic resources.

The Implementation Matrix on the pages following the strategic maps lists the specific actions the Township intends to use to achieve its goals.

IMPLEMENTATION MATRIX

Figure 16 - 3 lists actions that the Township can take to implement the goals of this plan. These actions are categorized according to the goal they support.

Figure 16 - 1
Strategic Implementation Map

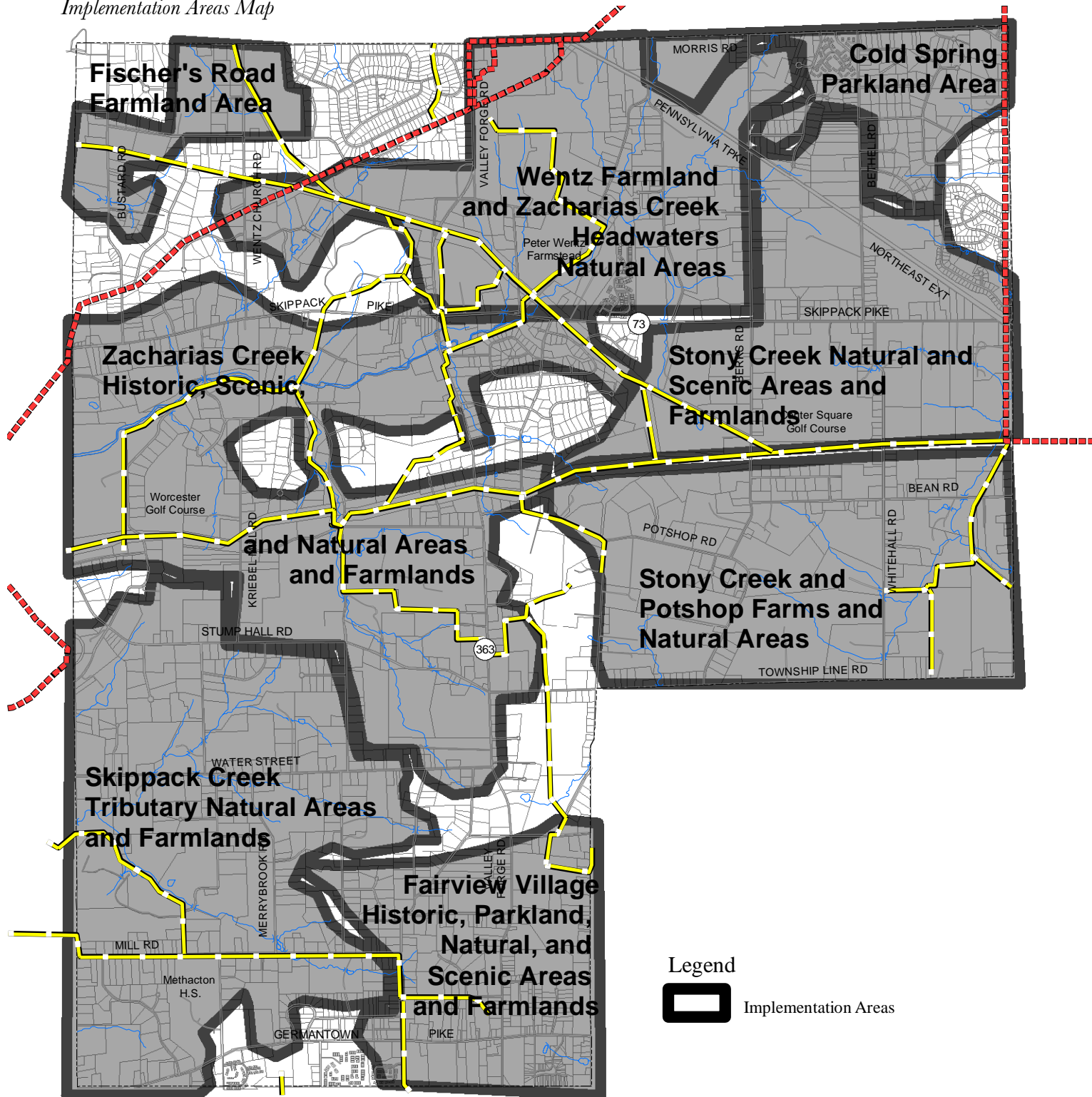


Legend

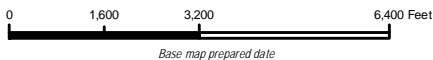
-  Natural Resource Protection Strategy Areas (Figs. 6-1, 6-16, 6-17)
-  Agricultural Preservation Strategy Areas (Fig. 10-3)
-  Historic Preservation Strategy Areas (Fig. 4-13)
-  Scenic View Protection Strategy Areas (Fig. 4-11)
-  Scenic View Directions (Fig. 4-11)
-  Scenic Roads (Fig. 4-11)
-  Parkland Strategy Areas (Fig. 8-3)
-  Future Regional Trails (Fig. 11-5)
-  Future Township Trails (Fig. 11-5)
-  Strategic Greenway Areas (Fig. 6-1)

MCPC Montgomery County Planning Commission
 Montgomery County Courthouse - Planning Commission
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 www.montcopa.org/plancom
 This map is based on 2000 ortho photography and official sources. Property lines were compiled from individual block maps from the Montgomery County Board of Assessment Appeals, with no verification from the deed. This map is not meant to be used as a legal definition of properties or for engineering purposes.

Figure 16 - 2
Implementation Areas Map



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Figure 16 - 3
Implementation Matrix

| GOAL 1: Preserve High-Priority Open Space Lands | |
|---|--|
| Objectives | <ul style="list-style-type: none"> ▪ Protect sensitive natural resources ▪ Preserve important agricultural lands and working farms ▪ Conserve historic and heritage resources ▪ Buffer important historic and natural resource areas ▪ Protect scenic views and roads ▪ Provide high-quality recreation opportunities |
| Action Items | <ul style="list-style-type: none"> ▪ Utilize local, state, and federal funding mechanisms in order to preserve approximately 50 to 100 acres annually. ▪ Discuss options for a local funding mechanism for the purpose of preserving additional Open Space Priority Lands. ▪ Preserve farmland surrounding Peter Wentz Farmstead to buffer the historic site from development, to preserve the unique attributes of the farmstead, and to expand Worcester’s supercluster of protected farmland. ▪ Review and revise ordinances as necessary to protect and promote the continued economic viability of working farms of all types in the township, in order to encourage existing farmers to continue farming as well as to attract additional farm owners to the township. ▪ Acquire easements and land parcels along the Zacharias Creek corridor. ▪ Preserve high-value areas located on the Final Composite of Vulnerable Regional Resources, Open Space Proximity, and Habitat Corridors map, Figure 6 - 16, and on the Final Composite of Vulnerable Township Resources, Open Space Proximity, and Habitat Corridors map, Figure 6 - 17. ▪ Preserve the most valuable township resources located on the Composite of Township Resources and Linkages map, Figure 6 - 1, and the Most Vulnerable Township Resources Map, Figure 6 - 2. ▪ Work with appropriate government and non-governmental agencies and organizations. ▪ Encourage monetary and land donations for resource preservation. ▪ Preserve land along or near Evansburg State Park. ▪ As more site-specific natural resources information becomes available, consider preservation of identified parcels. ▪ Work to preserve properties that qualify for preservation under the State Farmland Preservation Program. ▪ Work to preserve properties that have been determined to be valuable by the Township. ▪ Encourage and support initiatives that will increase the economic viability of farms. |

Figure 16 - 3 (cont'd)
Implementation Matrix

| GOAL 2: Protect the Rural Character of the Township | |
|--|--|
| Objectives | <ul style="list-style-type: none"> ▪ Protect the natural and cultural features that give Worcester its rural character ▪ Prevent the degradation of that character by guiding the design of new development ▪ Minimize the impacts of new development |
| Action Items | <ul style="list-style-type: none"> ▪ Consider a mandatory conservation subdivision process to provide significant and connected open space in subdivisions and to ensure township input into the character of these developments. |
| | <ul style="list-style-type: none"> ▪ Work with appropriate government and non-governmental agencies and organizations. |
| | <ul style="list-style-type: none"> ▪ Consider creating an Environmental Advisory Council to review the specifics of land development plans in order to assure the protection, to the greatest extent possible, of important natural resources in the township. |
| | <ul style="list-style-type: none"> ▪ Consider a historic preservation ordinance to promote the preservation of lands and structures that may have local, state, or national historic significance. |
| | <ul style="list-style-type: none"> ▪ Consider ordinances to encourage small horse farms and horse boarding operations. |
| | <ul style="list-style-type: none"> ▪ Consider methods for preserving the township's scenic views and scenic roads. |
| | <ul style="list-style-type: none"> ▪ Work with Lower Providence Township to control school district costs by limiting new housing development. |
| GOAL 3: Develop a Network of Parks and Recreational Trails | |
| Objectives | <ul style="list-style-type: none"> ▪ Connect the passive and active open space within the township ▪ Connect to important destinations and other trail systems throughout the county |
| Action Items | <ul style="list-style-type: none"> ▪ Develop the following trail sections (refer to Figure 11 - 5): <ul style="list-style-type: none"> Evansburg State Park to Heebner Park along Zacharias Creek and Hollow Road Heebner Park to Nike Park Palmer Trail Hub and Peter Wentz Farmstead Connector |
| | <ul style="list-style-type: none"> ▪ Identify potential linkages between existing and planned destinations within the township and in neighboring townships, and identify possible strategies to implement these linkages. |
| | <ul style="list-style-type: none"> ▪ Consider developing a recreation facilities assessment plan for the Township to determine how to address recreation needs as well as the ideal location of the facilities. |
| | <ul style="list-style-type: none"> ▪ Fulfill the needs for neighborhood, community, and natural parks identified in this plan. |
| | <ul style="list-style-type: none"> ▪ Work with appropriate government and non-governmental agencies and organizations. |
| | <ul style="list-style-type: none"> ▪ Review the need for a Park & Recreation Fee Ordinance in conjunction with a Park & Recreation Assessment Plan to help create and preserve more active and passive open space. |
| | <ul style="list-style-type: none"> ▪ Enact an ordinance requiring developers to provide a trail connection across the parcel to facilitate the interconnection of the township trail network. |

Figure 16 - 3 (cont'd)
Implementation Matrix

| GOAL 4: Connect Areas of Preserved Open Space with Natural Greenway Linkages | |
|--|--|
| Objectives | <ul style="list-style-type: none"> Enhance and protect the township's potential as important natural habitat |
| Action Items | <ul style="list-style-type: none"> Establish a protected greenway along the Zacharias Creek (including feeder creeks and headwater areas) to handle floodwaters, minimize erosion, protect water quality, and provide important wildlife habitat, including sections that will remain non-access areas and other areas that will remain low-access. |
| | <ul style="list-style-type: none"> Establish a protected greenway along the Stony Creek feeders (including headwater areas) to handle floodwaters, protect against erosion, protect water quality, and provide important wildlife habitat. |
| | <ul style="list-style-type: none"> Use SmartConservation™ resource mapping to identify and prioritize areas of environmental significance in order to plan for future protection of sensitive natural resources. |
| | <ul style="list-style-type: none"> Use SmartConservation™ habitat corridor mapping to identify and prioritize significant habitat corridors in order to plan for future protection of these corridors. |
| | <ul style="list-style-type: none"> Work with appropriate government and non-governmental agencies and organizations. |

IMPLEMENTATION TIMELINE

The committee has recommended a timeline, see Figure 16 - 4, to implement the items in the implementation matrix.

The higher priority actions should be acted on, if not achieved, by 2008. The remaining actions should be pursued in the succeeding five to ten years, with some of the actions ongoing over the life of the plan. Other plan recommendations not specifically listed are generally considered long-term priorities but may be elevated in priority based on the presentation of specific opportunities.



Preserved segment of the Zacharias Creek

Photo: Laura Caughlan

Figure 16 - 4
Implementation Timeline

| Proposed Implementation Item | Estimated Start Date | Estimated Completion Date |
|--|----------------------|---------------------------|
| Design and construction of the Zacharias Creek Trail from Evansburg Park to Heebner Park | started | 2006 |
| Adoption of Comprehensive Plan Update | started | May 2006 |
| Adoption of Growing Greener Conservation Subdivision Ordinance | started | March 2006 |
| Protect a minimum of 50 to 100 acres of land annually | started | on-going |
| Encourage monetary and land donations for permanent open space | started | on-going |
| Create a Historic Advisory Commission | March 2006 | May 2006 |
| Assess need for a permanent Open Space Committee | February 2006 | under consideration |
| Design and construction of Liberty Bell and Powerline Trails | To be determined | To be determined |
| Design and construction of additional township trails | To be determined | To be determined |
| Coordinate development vision with Lower Providence Township and Methacton School District | 2006 | on-going |
| Discuss options for a local funding mechanism for preserving additional Open Space Priority Lands | 2006 | To be determined |
| Preserve farmland surrounding Peter Wentz Farmstead | 2006 | 2007 |
| Work with appropriate government and non-governmental agencies and organizations | on-going | on-going |
| Review and revise local ordinances to protect and promote the economic viability of working farms | 2006 | To be determined |
| Review the need for a recreation facilities assessment plan | 2006 | To be determined |
| Review the need for a Park & Recreation Fee Ordinance | 2006 | 2007 |
| Enact a trail ordinance | 2006 | To be determined |
| Consider the need for recreational space in Fairview Village | 2006 | To be determined |
| Establish a protected greenway along the Zacharias Creek | 2006 | To be determined |
| Establish a protected greenway along the Stony Creek feeders | 2006 | To be determined |
| Use SmartConservation™ resource mapping to identify and prioritize areas of environmental significance | 2006 | on-going |
| Use SmartConservation™ habitat corridor mapping to identify and prioritize significant habitat corridors | 2006 | on-going |
| Consider methods for preserving the township's scenic views and scenic roads | 2006 | 2007 |
| Consider new or revised ordinances to encourage the existence of small horse farms | 2006 | To be determined |

SUMMARY

The Township will work simultaneously on three fronts:

- 1) The Township will be pro-active in pursuing certain acquisition and non-acquisition actions,
- 2) The Township will work on identifying those lands most likely to be eligible for conservation funding, and
- 3) The Township will actively pursue offers and questions from property owners who are interested in conservation.

Worcester Township has successfully maintained much of its rural agricultural heritage in the face of mounting development pressure over the past 25 years. However, its unique historic resources, natural features, and rural character are in danger of being lost if the Township does not take action to protect them. This plan establishes ambitious but achievable goals by which the Township intends to protect and preserve its quality of life. The implementation strategies outlined in this chapter are the framework by which these goals will be realized. As the Township moves forward, on its own and in partnership with others, to implement these actions, they will benefit all the residents of Worcester Township, now and in the future.



Fairview Village

Watercolor by Bill Bourne
