

Chapter Four: Implementation

Project Partners

The following is a listing of project partners identified by the study committee and the public participation process.

- Lower Paxton Township
- Dauphin County
- Schools
- Developers
- State Agencies (DCNR, PennDOT, DCED)
- Recreation Groups
- Local Businesses
- Harrisburg Bike Club
- Keystone Trails Association
- Susquehanna Appalachian Trail Conference

Each of these entities will likely be involved with the promotion, funding, and/or implementation of the Township Greenway system. The Township will need to continue to lead the implementation process by applying for and securing grant funds for an initial demonstration project.

The Schools may also contribute to the early implementation projects associated with any Transportation Enhancements ‘Safe Routes to School’ program applications by offering their support and/or potential matching funds. Schools may also be used to promote the greenway through a ‘walkabout’ or a signage art program. A walkabout is where students and residents can gather to demonstrate not only the greenway’s contribution to providing safer routes to school, but also the greenway’s recreational and interpretive educational opportunities.

Developers will be instrumental in the construction of the proposed trails where alignments are to be located within land tracts currently under land development review. Trails should be included within the development plans as required by the Township.

State agencies such as DCNR and DCED will be important sources for design/engineering and construction funding. PennDOT should be involved with the highway-related improvements projects. Local recreation groups and businesses can contribute through fund raising and/or by applying for funding as non-profit agencies.

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Greenway Plan Recommendations

Adopt this Greenway Plan as an addendum to the Township Comprehensive Plan. By doing so, the Township will be able to establish a more authoritative position relative to the proposed improvements, recommendations, and implementation priorities described herein.

The Township must ensure that the proposed improvements within this plan are included in all new land development and roadway improvement projects. The Township must be vigilant to ensure that trail alignments proposed within this plan are included in the construction plans proposed by the developers as part of the land development process, and in the design plans for roadway improvements. Requiring developers to construct trails and/or pedestrian facilities to meet ordinances will allow these new residential (or commercial) developments to “plug into” the greenway trail system and eliminate the need to raise public dollars for pedestrian/trail improvements. The Township will also need to be involved with the roadway design process to make sure space is made for the proposed bicycle and pedestrian facilities, including bike lanes or routes, shoulder improvements, bicycle safe grates, signage, and crossing improvements. This effort must be continuous and therefore the Township should mandate that this Greenway Plan is to be referenced in the review of all land development applications and roadway design projects.

The Township must use its municipal funds to leverage additional grant funding from state and federal sources. The Township will need to apply for and receive grant funding from both State and Federal sources in order to develop the proposed improvements that will not be constructed as the result of land development and roadway projects. Many State grant programs can be used as a designated match for other federal grant programs and vice versa.



Tree lined street in the Colonial Park North area..



A dangerous intersection at Devonshire Heights and Nyes Roads.



Beaver Creek.

By leveraging funds, the Township will be able to maximize the amount of constructed improvements per municipal dollar.

Using the 'Safe Routes to School' demonstration project as an example, the Township has applied to DCNR's development grant program for approximately \$500,000 for the professional services to design and engineer the proposed connections. As part of this 50/50 grant program, the Township will contribute \$250,000 to match the \$250,000 provided by DCNR for the \$500,000 total. This \$500,000 total for professional services could then be leveraged as the 20% match towards the 80/20 federal 'Safe Routes to School' Transportation Enhancements reimbursement program whereby the Township would receive the other 80% (or \$2,000,000) for construction funding. In summary, the Township can realize \$2,500,000 worth of proposed improvements by investing \$250,000 (or 10% of the project total) by properly leveraging their funds.

Adopt a Riparian Corridor Conservation Overlay Zoning District. The model ordinance and corresponding riparian buffers mapping as described in this report will provide additional protection to the Township's natural resources in its most sensitive locations. The newly adopted subdivision and land development ordinance provides performance related criteria and protection for natural resources, however it does not provide protection for the specific geographical locations associated with the Township waterways that the riparian corridor overlay district would provide.

Implementation Priorities

1. Construct a 'Safe Routes to School' demonstration project. The Township is actively pursuing funding for a project by preparing applications to both the PA DCNR Community Conservation Partnerships Program (C2P2) Development grants program and the federally-funded Transportation Enhancements Safe Routes to School program administered by PennDOT. This demonstration project is located in the Colonial Park South / Union Deposit Implementation area (as described later in this chapter) and proposes approximately \$2.5M in improvements. The Township began this process by submitting the DCNR Development grant application in April of 2007. The Township will follow with an application to the PennDOT Safe Routes to School program in the autumn of 2007 for the remaining construction funds.
2. Complete the Neighborhood bikeway and sidewalk connections along existing roadway corridors between neighborhoods and destinations. These are the connections located within a ½ mile walking radius of the destinations identified on the trail mapping at the end of this chapter. These are the most important connections for providing a continual bicycle and pedestrian network within the Townships many communities for the majority

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of Township residents. These proposed routes are located within public rights-of-way, will not require the acquisition of additional land, and will only require construction funding to make them happen.

3. Complete the Neighborhood off-road connections. These connections may require property or easement acquisition. The Township should begin to investigate which of these connections beyond the initial demonstration project will be necessary to implement first so that negotiation processes can begin.
4. Prepare Feasibility Studies / Master Plans for the Off-Road trail connections along stream corridors. The Township off-road trail connections proposed with this plan will require further study to determine their feasibility, level of service, and construction requirements. Many proposed alignments follow along existing sewer line easements or through privately-owned land. The Township needs to assess the demand and impacts by reviewing more detailed information.
5. Keep an eye on the opportunities to provide connections to regional trails and/or bikeway systems beyond Township borders. Extending the Township-wide system beyond its municipal boundaries will provide greater transportation and recreation alternatives for all residents. These opportunities may be explored jointly by forming multi-municipal agreements with the adjacent municipalities involved with the potential connections.

GIS Mapping

Trail mapping for the project implementation area exhibits was created using a Geographic Information System (GIS) program. This GIS program is used as a data management and



Rutherford Road in the Colonial Park South / Union Deposit implementation area.



New residential developments in the southwest.



The PPL corridor leading to the top of Blue Mountain and the Darlington Trail.



Conway Road in the southwest.



Route 39 through Linglestown.



Nyes Road looking south.

graphic tool to create the trail mapping exhibits; to calculate accurate lengths for trail segments; and, to identify impacted land parcels. Base data used in the formulation of this report was provided by Lower Paxton Township, the Tri-County Regional Planning Commission (TCRPC), and by the Pennsylvania Spatial Data Access (PASDA) website, including the aerial photography developed as part of the PAMAP project. Each of the proposed improvement alignments shown in these exhibits have been delivered to the Township in GIS format to be included as part of their on-going inventory and for future use and reference.

Implementation Areas

Colonial Park South / Union Deposit

This implementation area is located in the southwest portion and is one of the more densely populated areas in the Township. Locust Lane and Union Deposit Road are the major east-west thoroughfares with Interstate 83, Rutherford Road, and Arlington Road forming the major north-south roads in the area. The majority of the uses located in this vicinity include residential, institutional, neighborhood commercial, and highway commercial along Route 83. Five schools, two parks, and the Lower Paxton Township Municipal Building are located in this vicinity. There are many established developments with sidewalks that are disconnected from other nearby neighborhoods. This area is where the initial 'Safe Routes to School' demonstration project is to be located.

Colonial Park North / Paxtonia

Jonestown Road is the dominant physical feature in this planning area which also comprises a vibrant commercial core for the Township. The west portion of this thoroughfare contains the Colonial Park Mall and other big box retail shopping centers. The Interstate 81 corridor also crosses the planning area to the north. Other major roadways are the north-south

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corridors of Colonial Road and Nyes Road, and the east-west conduits of Devonshire Road and Old Jonestown Road. Outside the commercial corridor the area is comprised of mostly residential and institutional uses. There are three elementary schools, three parks, and the Friendship Community Center all located within this implementation area.

Linglestown

This implementation area is oriented around the small village of Linglestown, located in the northeast portion of the Township. Commercial uses can be found intermittently along Mountain Road and Linglestown Road with the rest of the uses being comprised of primarily residential and institutional. The major east-west roadway corridors are Linglestown Road and Interstate 81. The north-south connectors are Mountain Road, Piketown Road, Lockwillow Avenue, and Blue Mountain Parkway. There are two major schools located within this area; the Linglestown Junior/Senior High, and Central Dauphin High School. Parks located within this area include Koons Park and Wolfersberger Park. The Beaver Creek forms the east boundary for the Township and is a significant natural feature in this locale. The north portion of this planning area contains a PP&L overhead power line that travels to Blue Mountain to the northwest and West Hanover Township to the east.

Northwest

Jonestown Road is the main east-west traffic conduit and serves as the commercial core for the area. Other uses in the planning area include residential, institutional, and several large tracts of undeveloped land that remain under constant pressure to fill future development needs for the Township. Significant north-south roadways include Crums Mill Road, Colonial Road, and Forest Hills Drive. The Darlington Trail and the PP&L overhead power line easement runs along the northern boundary of the planning area. The emergence of the Paxton Creek is a valued natural resource found in this area.

Southeast

The primary use of the Southeast planning area is residential. Many large undeveloped tracts also exist, placing this area of the Township under the greatest pressure for future development. The Nyes Road corridor forms the primary north-south traffic corridor and contains various important natural features. Major east-west road connections include Devonshire Heights Road, Locust Lane, and Union Deposit Road. The Beaver Creek is an important natural feature found in this area. Kings Crossing Park and Hodges Height Park are located in this planning area.

Estimate of Probable Development Costs

Below is a summary of the conceptual-level cost estimates to develop the proposed Township-wide bicycle and pedestrian facilities. These costs were developed by taking measurements from the GIS mapping/database and applying them to the unit costs as described in 'Chapter Three: Greenway Plan' under the section entitled 'Proposed Greenway Connections'.

<u>Neighborhood Off-Road</u> - (50,600 LF @ \$40/LF)	\$2,024,000
<u>Neighborhood On-Road</u>	
Bike Lanes / Routes (86,500 LF @ \$15/LF)	\$1,297,500
Sidewalks (86,500 LF @ \$35/LF)	\$3,027,500
<u>Walkways</u> – (14,150 LF @ \$35/LF)	\$495,250
<u>Township Off-Road</u> – (79,500 LF @ \$40/LF)	\$3,180,000
<u>Township On-Road</u> – (165,000 LF @ \$3/LF)	\$495,000
<u>Intersection Improvements</u> – (18 @ \$10,000 Each)	<u>\$180,000</u>
Subtotal Improvements:	\$10,699,250
Contingency (10%)	<u>\$1,069,925</u>
Improvements Total:	\$11,769,175
Design & Engineering (20%)	<u>\$2,353,835</u>
GRAND TOTAL:	\$14,123,010*

** These costs do not include acquisition of properties and are based on estimated construction costs for 2007 including standard prevailing wage rates associated with the public sector. Costs will need to be adjusted at a rate of 3-4% for each year following to account for the general rate of inflation.*

It is not expected that the burden for funding these improvements will be the sole responsibility of the Township. In fact, many if not most of the proposed improvements should be developed as part of the land and/or roadway development processes where the funding is borne by the specific project budget and/or private land developer. The remainder of improvements can be funded through grant programs whereby the Township can leverage their municipal funds to achieve the maximum amount of improvements per Township dollar.

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Based on the report mapping, it is estimated that approximately 40% of the proposed off-road connections - and potentially more as land development applications are filed - could be constructed by private developers. The total for all proposed off-road improvements is \$5,204,000. Private developers could absorb approximately \$2,081,600 (40%) of that total reducing the Township total to \$3,122,400. The total for both the Neighborhood and Township on-road improvements, including walkways and intersection improvements - all of which are proposed to be completed within the existing roadway rights-of-way - is \$5,495,250. It is reasonable to assume that the majority of these proposed improvements (75%) could be implemented as part of roadway improvement projects, thus reducing the Township contribution to approximately \$1,375,000.

The combined total of remaining off-road and on-road improvements estimated to be borne by the Township is approximately \$4,500,000 which can be significantly reduced through the proper leveraging of municipal funds through grant programs as described earlier in this chapter. It is conceivable that the Township could realize the estimated total of \$14,125,000+/- for the improvements described in this report for as little as \$2,000,000+/-.

Potential Funding Sources

For a quick reference guide relative to matching the potential funding source to the proposed improvements, please refer to the funding matrix found at the end of this chapter.

Surface Transportation Program (STP):

Eligible projects include the construction of bicycle transportation facilities; construction of pedestrian walkways; bicycle safety brochures, maps and public service announcements. Any bicycle project must be primarily a transportation project and STP projects should encourage desirable traffic patterns. Additionally, STP projects should sensitize people to environmental and social concerns. The Federal Highway Administration (FHWA) administers this program.

Ten percent of STP funds are set aside for Transportation Enhancements (TE). STP projects are not required to demonstrate impacts on traffic or transit.

TEA-21 Enhancements (SAFETEA-LU):

The Transportation Equity Act for the 21st Century (TEA-21) is a federal program that funds transportation related projects and is a direct successor to the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA). The bill allocated approximately \$217 billion nationwide over six years and includes funding for recreational trails and parks. In Pennsylvania, the Department of Transportation (PennDOT) administers several TEA-21 bicycle and pedestrian related programs. Grant awards in excess of \$1 million are not unreasonable for trail projects.

Typically, a non-federal match is required to be 20% of the grant award. A strategy preferred by PennDOT is to require the local partner to prepare construction documents and obtain necessary environmental clearances, property control documents and utility relocations plans as the local match for these “pre-construction” tasks - so that the project is ready for construction using the TE funding. The costs to prepare these documents can be the non-federal match to the TEA-21 funds, and does not necessarily need to be exactly 20% if all needed documentation can be completed for less. More information about this program can be found at the following link: <http://www.fhwa.dot.gov/safetealu/summary.htm>

PA Department of Transportation (PennDOT) Transportation Enhancements, Home Town Streets and Safe Routes to School Programs:

The PA Department of Transportation (PennDOT) “Hometown Streets & Safe Routes to School” program is to fund pedestrian and bicycle-related improvements in communities to improve safety, connectivity, and aesthetics for children to walk to school.

The program is an eligible project category of the “Transportation Enhancements” (TE) program with the funds originating from the Federal Highway Administration and administered through PennDOT in cooperation with the regional planning organizations across the state.

This program, like all FHWA programs requires that all federal and state environmental compliance regulations be met.

This funding program is not a grant program, but is a “reimbursement” program that does not necessarily require the local client to advance payments before being reimbursed. Projects as large as \$1M in federal dollars may be reasonable (equivalent to up to 80% of the total project cost). The 20% matching share can be from non-FHWA federal sources, state, county, local or private sources. The Regional Planning Organization (RPO or MPO) should be consulted.

The application materials and guidance are available online at: <http://www.dot.state.pa.us/pennDOT/Bureaus/CPDM/Prod/Saferoute.nsf>

Legislative Funding:

State and federal elected officials can often include items into legislation for worthy projects in their districts. A conversation between county and municipal officials and legislators is the way to begin this process. This type of funding should be targeted toward capital improvement projects.

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PA Department of Recreation and Natural Resources (DCNR) Community Conservation Partnership Program (C2P2):

A bond issue approved in a statewide referendum initially funded this program. Perennial funding is through a dedicated percentage of the statewide real estate transfer tax.

Funding from the program is dedicated toward recreation, environmental and cultural heritage resources throughout the state. Trails are eligible. Roadway projects are generally not eligible. Several agencies distribute funds through competitive grants, including: the PA Fish and Boat Commission, PA Historic and Museum Commission, and the PA Department of Conservation and Natural Resources (DCNR). DCNR funding application rounds were revised in 2007, so that most development grant applications are due in April. Consult with the DCNR Regional Advisor. State funds can be used for discrete projects or as a match to federal funds. DCNR requires a 50-50 match (cash or in kind) to its grant awards for trails. More information on this program can be found at: <http://www.dcnr.state.pa.us/brc/grants/>

Recreational Trails Program:

This program provides funding to states to make grants for trail and trail-related projects. Funding to this program is provided to the Commonwealth through the Federal Highway Administration (FHWA) and the Intermodal Surface Transportation Act (ISTEA) of 1991 which included the Symms National Recreational Trails Act (NRTA), and the National Highway System Designation Act of 1995 (NHS Act).

The monies may be used for the development of urban trail linkages near homes and workplaces; maintenance of existing recreational trails; development of trail-side and trail-head facilities; provision of features which facilitate the access and use of trails by persons with disabilities; acquisition of easements for trails, or for trail corridors identified in a State trail plan; acquisition of fee simple title to property from a willing seller; and construction of new trails on state, county, municipal, or private lands. Note: This program is one of the only to fund trail maintenance. This fund can be used for motorized (snowmobile) trails. More information on this program can be found at: <http://www.fhwa.dot.gov/environment/rectrails/>

DEP PA Growing Greener:

The Growing Greener Program signed into law by Governor Tom Ridge in 1999 invested millions to preserve farmland and protect open space; eliminate the maintenance backlog in State Parks; clean up abandoned mines; restore watersheds; and provide new and upgraded water and sewer systems.

In 2002, the state legislature added additional monies to the program due to its great popularity. Four different agencies are involved in helping communities "grow greener" under the Environmental Stewardship & Watershed Protection

Act: Departments of Environmental Protection, Agriculture, Conservation and Natural Resources and PENNVEST. Of these four agencies, projects that may be applicable to trail development will most likely be funded by the Department of Conservation and Natural Resources. In 2007, the PA Department of Environmental Protection (DEP) administered a large portion of the Growing Greener funds – with target programs for stormwater treatment and clean water demonstration projects.

The Act authorizes grants through DEP for acid mine drainage abatement, mine cleanup efforts, abandoned oil and gas well plugging and local watershed-based conservation projects. These projects can include: watershed assessments and development of watershed restoration or protection plans, implementation of watershed restoration or protection projects, storm water management wetlands, riparian buffer fencing and planting, stream bank restoration and agricultural best management practices (BMPs). Grants are available to a variety of eligible applicants, including: counties, authorities and other municipalities; county conservation districts; watershed organizations; and other organizations involved in the restoration and protection of Pennsylvania's environment. These grants support local projects to clean up “non-point” sources of pollution throughout Pennsylvania. Since many of the proposed trails and greenways include areas along waterways, there will be many opportunities for re-establishment of riparian buffers. It may be possible to blend Growing Greener grants with other grants for trail construction. This funding source would be most applicable to greenway corridors along Township creeks.

DCED Community Revitalization Funds:

The Department of Community and Economic Development (DCED) Community Revitalization Fund is a state program that supports local initiatives to improve the stability of communities and enhance local economies. This agency has four application periods throughout the year. Applications are submitted online. The grant program covers a wide range of eligible uses including: acquisition of land, buildings, and right-of-ways; recreation projects; programs and developments that build capacity of the local community and relevant local organizations to better serve the needs of the community, and other reasonable and necessary expenses related to community-based activities. Active support of the district's state senator and / or state representative is critical in a successful grant application. More information on this program can be found at: <http://www.newpa.com/programDetail.aspx?id=72>

PennDOT:

The Pennsylvania Department of Transportation may provide assistance with any on-road cycling route that is proposed on state highways or through TE funding. PennDOT may provide signs and installation of “share the road” markings and, if any shoulder widening is necessary, the local district may provide these improvements through its “Betterment Program” maintenance

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funding. This funding source would be applicable towards the Township greenway and trail system on-road routes.

Lower Paxton Township:

Some grant programs allow “in-kind” services in place of cash to count as a local match. It is strongly suggested that the Township immediately begin to keep a detailed inventory of municipal staff and/or official time spent on the greenway project. Occasionally, grantors may allow time spent to date to count as part of the in-kind match for funds. This record will also demonstrate a continuing commitment on the part of the Township to the successful implementation of the master plan. The Township may in some cases choose to invest municipal funds in specific aspects of the Greenway development as “leverage” to secure funding from other partners.

Private Foundations:

There are corporations and foundations that support public works such as trail development. The competition for these funds is brisk, but the opportunities should be researched. Funding is often to non-profit organizations.

Schools:

Local schools may also be of assistance in several ways. The student body might get involved with clubs, fundraising events, and trail cleanup days. The faculty could incorporate the trail into various curricula with students helping to develop and possibly maintain the trail as part of a classroom assignment or after school club. While the amounts of funds raised may be relatively small, this process builds constituents and support that is critical to the long-term success of the greenway and trail system.

Maintenance

Maintenance responsibilities for off-road trail sections could be assumed by volunteer ‘Friends of the Trail’ or similar groups, homeowners associations, or possibly by Township staff. Each of the trail operation and maintenance agreements will need to be developed on an individual basis by location and will determine the most appropriate entity to perform these tasks. Annual operations, maintenance and security guidelines for a typical trail can be found in the report appendix.

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Potential Funding Sources			Applicability			
Program	Agency	Federal / State / Local	Neighborhood Off-road	Neighborhood On-road	Township Off-Road	Township On-Road
Surface Transportation Program (STP)	FHWA	Federal	X	X	X	X
TEA-21 Enhancements (SAFETEA-LU)	FHWA / PennDOT	Federal	X	X	X	X
PennDOT Transportation Enhancements - Home Town Streets / Safe Routes to School	FHWA / PennDOT	Federal	X	X	X	X
Legislative Funding	Elected Officials	Federal / State	X	X	X	X
PA DCNR Community Conservation Partnership Program (C2P2)	PA DCNR	State	X		X	
Recreational Trails Program	FHWA	Federal	X	X	X	X
PA DEP Growing Greener	PA DEP	State	X		X	
PA DCED Community Revitalization Program	PA DCED	State	X	X	X	X
PennDOT Betterments Program	PennDOT	State		X		X
Lower Paxton Township	Municipality	Local	X	X	X	X
Private Foundations	varies	varies	X	X	X	X
School District	School District	Local	X	X	X	X

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