A photograph of a forest path with a brown title bar overlaid. The path is dirt and covered with fallen leaves, leading through a dense forest of tall trees. The foliage is mostly green, with some yellowing leaves visible, suggesting an early autumn setting. The title bar is a solid brown color with white text.

Chapter 4
Greenway and Open Space Framework



Introduction

How do Union County citizens see the future of greenways, open space, parks, trails and working landscapes? That question, among others, needed answered as part of this planning process. The first step, however, was to carefully review the results of prior planning and engagement efforts conducted over the past decade to determine what had already been documented in terms of public attitudes toward greenways and open space. Appendix A contains a summary of this review which revealed goals, recommendations, policies, and specific projects that had been previously vetted and validated.

The county and municipal comprehensive plans were reviewed along with the following plans and reports specific to Union County and its communities: Bucknell River Access Report, Buffalo Creek Watershed Plan, Bull Run Neighborhood Plan, Lewisburg Area Comprehensive Park, Recreation, Open Space & Greenway Plan, Buffalo Valley Rail Trail Final Section Feasibility Study, Lewisburg River Launch Report, Riverwoods Greenway Conceptual Plan, US Route 15 Smart Transportation Corridor Plan, and the Union County Natural Areas Inventory.

In addition, plans that were statewide or region-based that contained implications for Union County greenways and open space were reviewed and included the following: Chesapeake Bay Watershed Public Access Plan, Lower West Branch Susquehanna River Conservation Plan, SEDA-COG Metropolitan Planning Organi-



zation's (MPO) Long-Range Transportation Plan, Susquehanna Greenway Plan, West Branch Water Trail Stewardship Plan and greenway plans for the neighboring counties of Centre, Lycoming, and Northumberland.

Public participation results from many of the above and the Lewisburg River Town Community initiative, the Pennsylvania Statewide Outdoor Recreation Plan and from the Pennsylvania Department of Transportation's 12 Year Plan update were also reviewed and are highlighted in Appendix A.

Citizen Engagement

By looking at the results of the various plans and outreach, it was generally known how people in the county felt about retaining farmland,

forests and other open spaces and the development of greenways, parks and trails. Residents value outdoor recreation; therefore greenways and open spaces are needed in order for people to participate in those activities. Overall there is support for greenways, trails, water access points, watershed restoration and the protection of more land as permanent open space. Therefore citizen engagement for this greenway and open space plan was designed to augment what had already been documented and was structured to obtain more specific input.

The public participation process, which included a project steering committee, public meetings, focus groups and interviews, a web-based survey, and landowner interviews, was crucial in understanding the specific needs of Union



County residents regarding greenways and open space. This feedback was used to shape the plan's vision, goals and implementation priorities.

Steering Committee

From the early stages of the planning process through to the final recommendations, the 14-member Steering Committee, representing a diverse set of interests, played an important role in development of the plan. The committee brought a regional and consistent focus while serving as a sounding board for ideas generated throughout the project. The committee also provided input by identifying key issues in addition to assisting with interpreting public input. Overall, the Steering Committee balanced an assortment of contrasting ideas of what is important for a county greenway and open space system and had to weigh various options and implementation strategies.

Interviews

Interviews were used to supplement the Steering Committee and public meetings and were effective for having open dialogue that otherwise may not have happened in a traditional public forum. A total of eight interviews were held, involving more than a dozen people that included natural resource managers, Bucknell University, healthcare professionals, land trusts, community advocates, recreation enthusiasts, and watershed associations. Interview participants were asked to respond to several questions intended to solicit how they envision a successful greenway and open space system

in the county and what the priorities should be for greenways, open space, farmland preservation, trails, and parks over the next 10 years. They were also asked to identify any special needs that should be addressed, along with specific ideas for open space conservation and projects that should be considered as implementation priorities. Finally, everyone was asked how they would allocate a hypothetical \$1 million of funding that was restricted to conservation, greenways, and open space related uses.

These interviews generated a number of common themes. Conservation of farmland, forests, and critical habitat was mentioned frequently along with the need for riparian buffers. Implementation of the Susquehanna Greenway with access to and along the river was noted as a high priority, as was finishing the Buffalo Valley Rail Trail and building new connections to it in order to link neighborhoods and activity centers. Other items repeatedly suggested included improving access to Penns Creek, connecting existing parks and open



spaces, expanding core areas like the Bald Eagle State Forest and establishing riparian corridors that connect resources.

In response to the question about how \$1 million of conservation funding should be allocated, the answers were fairly consistent and included the following:

-  Improve access to and along the West Branch Susquehanna River with a trail system;
-  Permanently preserve farmland, forests, and important wildlife habitat;
-  Install riparian buffers along streams to improve water quality; and
-  Conservation education and marketing for residents and within schools.

Other specific projects that were mentioned as having a high priority were protecting the Shikellamy Bluffs, expanding the conserved wetlands and open space along Buffalo Creek in Mifflinburg, greening the downtowns within communities, and converting the New Berlin Elementary School property into a park and public green space.

In addition, given that the vast majority of new greenways and open space conservation would need to occur on private property, it was important to understand the opinions and concerns of landowners. With the Susquehanna Greenway being the most visible greenway corridor in the county and repeatedly mentioned as a priority by the Steering Committee and in interviews it was decided that large landholders

in the corridor should be interviewed. This greenway has also been the subject of ongoing planning and outreach by the Susquehanna Greenway Partnership. A faculty member from the Bucknell University Center for Sustainability and the Environment personally interviewed eight willing landowners out of a total of 18.

All but one of the people interviewed owned a farm adjacent to the river and every property had a vegetative buffer of 30 to 150 feet between the river and farm fields. Each land owner expressed a desire to preserve the buffer. Most interviewees said they would not have attended a public meeting on this topic and were appreciative that the county was trying to understand their concerns and attitudes. Only two of the landowners were familiar with conservation easements or agricultural preservation and none of the eight had any knowledge about the Susquehanna Greenway. Two interviewees expressed a sincere desire for a greenway along the river, but most were resistant to the idea.

The main concerns to a greenway that provided public access were consistent and included worries about: liability, trash, privacy, being burdened with maintenance, and the belief that a greenway would impede their use of the river and/or their property. One person interviewed reacted in a hostile manner toward the greenway concept and threatened legal action should the government try to impose a trail or any other stipulations on riverfront property owners.

The interview results, and no response by the other 10 landowners after multiple attempts to contact them, would point to an overall lack of interest in developing a greenway and riverfront trail system in the short term among the property owners. However there are opportunities present for a conservation greenway (buffer) and to a limited extent a recreational greenway and trail in a piecemeal fashion. As such, greenway implementation along the river will need to take place through a concerted effort over the next twenty years as changes in ownership could bring to bear a different set of attitudes.

Public Meetings

Five public meetings were held throughout the county to obtain valuable input on the greenway and open space plan. The sessions were announced via press releases/stories in the *Standard Journal*, *The Daily Item*, *Union County Times*, and *Williamsport Sun Gazette* newspapers, posts on the county Facebook page, county and project website, through emailed and mailed notifications to municipal governing bodies and planning commissions and with 11x17 colored flyers posted around the county. Partner organizations and steering committee members also promoted the meetings. For example, the Merrill Linn Conservancy had an

**The UNION COUNTY
GREENWAY and OPEN SPACE PLAN**

A SERIES OF **PUBLIC MEETINGS**

Make a note of the dates!

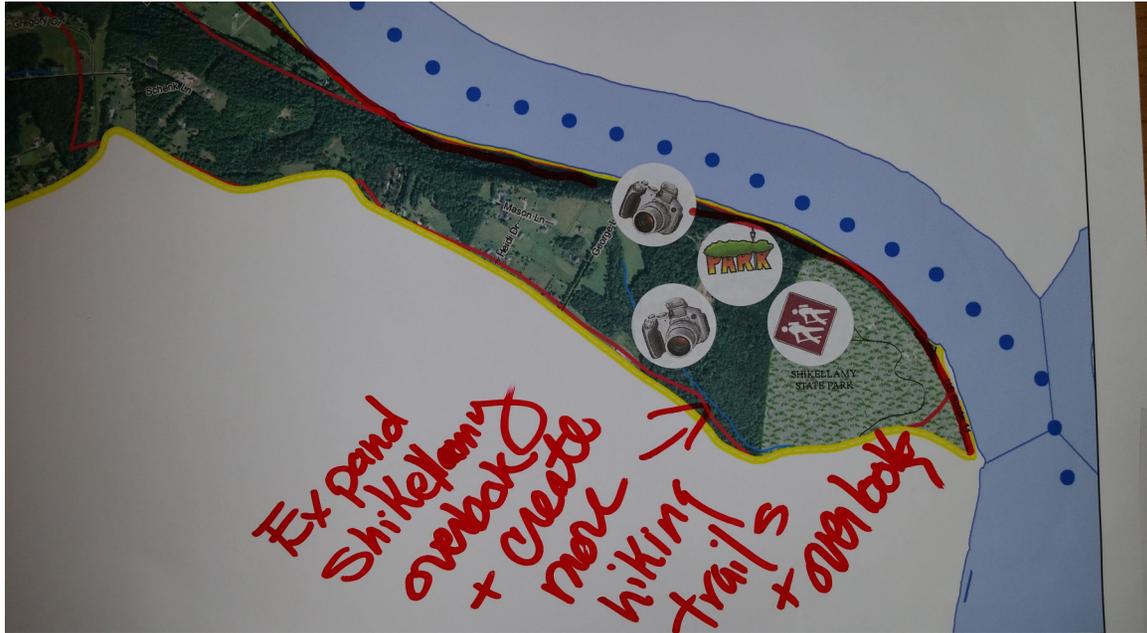
FEBRUARY 25	6:00-8:00 PM	Hartley Twp. Community Center 1724 S.R. 235 Laurelton
MARCH 4	6:00-8:00 PM	UC Government Services Building 343 Chestnut Street Mifflinburg
MARCH 5	6:00-8:00 PM	Union Twp. Municipal Building 70 Municipal Lane Winfield
MARCH 11	6:00-8:00 PM	Allenwood Fire Hall 196 White Deer Avenue Allenwood
MARCH 12	8:00-10:00 AM	Union County Government Center 155 North 15th Street, Lewisburg



- » Join the discussion
- » Ask questions
- » Share your ideas

ucgreenway.org

announcement on their website and Facebook page, while the Buffalo Creek Watershed Alliance and Union County Historical Society emailed members encouraging attendance and participation.



The meetings were held in Laurelton, Mifflinburg, Winfield, Allenwood, and Lewisburg. The format of these sessions included displays of project information and handouts and featured a short presentation about the greenway and open space plan that addressed why the plan was being done, its purpose, benefits of greenways and open space, the project schedule, and instructions on how attendees could have their ideas recorded. The intent was to hear from residents about their thoughts, concerns, needs, desires and issues concerning greenways and open space in the county.

After the presentation, participants were asked to rotate among three stations. This included an “Idea Station” where goals, ideas, and recommendations could be written on a white board.

There was a “Mapping Station” where stickers, representing a variety of greenway and open space resources, could be placed on a set of countywide maps to show where farmland should be preserved, new bike trails should be created, locations for riparian buffers, water access and the like. Comments could be written on the maps and additional features drawn. Lastly was the “Money Station” where people could deposit their \$100 of Monopoly money into boxes representing predetermined project priorities (i.e. land preservation, trails, water access, riparian buffers, community parks) or use the “Other” box to designate a different priority or to suggest the money be “saved”.

The *Idea* and *Mapping* Stations yielded information that primarily centered on the

common themes of community parks, land preservation, riparian buffers/stream quality, trails, and water access. In general people felt a need to establish community parks where residents do not have access to such features, such as in Allenwood Village, and to provide parks in growing residential neighborhoods.

Land preservation was a priority and suggestions included promoting more voluntary land conservation efforts, limiting sprawl development, the use of incentives to encourage greenway and open space protection, and revising local ordinances to provide consistent implementation of land use and conservation goals. Participants identified specific areas for land protection through the mapping exercise. For example large swaths of agricultural areas between Lewisburg and Mifflinburg following the Colonel John Kelly Road, Route 192, Route 45, and Furnace Road corridors were identified as farmland preservation priorities as was the Route 304 corridor between Winfield and New Berlin.

The need to protect existing riparian buffers and to establish greenways for environmental protection where streamside vegetation is minimal was frequently mentioned along with providing education about farm and home best management practices. Trails were a popular topic with emphasis on finishing the Buffalo Valley Rail Trail (BVRT) by completing the US 15 crossing and making a connection to the Susquehanna River in Lewisburg Borough. There was also considerable interest in expanding the trail west beyond Mifflinburg and creating connectors

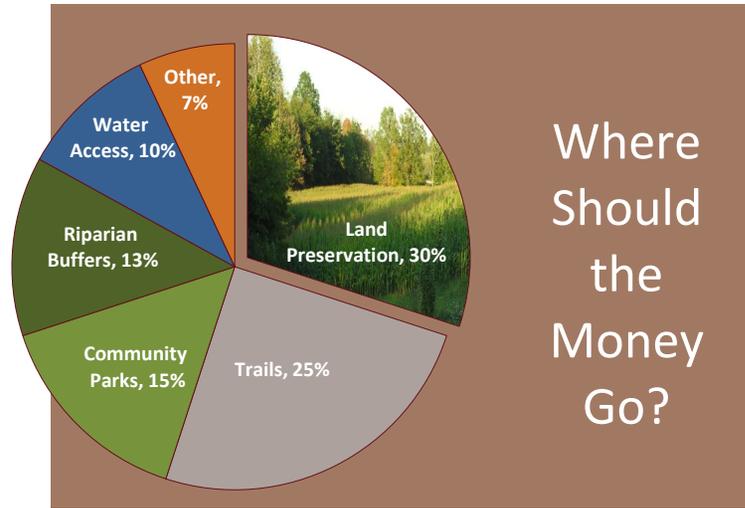
from neighborhoods and activity centers to the BVRT. A trail and greenway system along the West Branch Susquehanna River was another frequently mentioned priority including creating a trail in Gregg Township that would connect Allenwood to Montgomery Borough in Lycoming County. A trail in the southern portion of the county that would connect Winfield to Northumberland Borough in Northumberland County was often cited as well. Other suggestions included improving the PennDOT designated bike routes V and J with wider shoulders, educating the public about proper walking and biking rules, and improving access from Lewisburg Borough to the Riverwoods Soccer Complex.

In terms of water access, the idea of a Penns Creek water trail was popular along with developing river access at the county's Great Stream Commons property near Allenwood. Other suggestions included creating a more formalized river access for canoes and kayaks in Lewisburg Borough. Miscellaneous suggestions included providing cultural and historic interpretation; creating an outdoor mentor program for suburban and urban residents; using demonstration projects in high profile areas to show the benefits of greenways, trails, and open space; adequately planning for the maintenance of any future community park, greenway and trail improvements, and evaluating the designation of US 15, and Routes 45, 192 and 44 as Scenic Byways with PennDOT.

The *Money Exercise* showed how people would prioritize and spend limited resources on gre-

enway and open space implementation categories. Land preservation and trails, as illustrated in Figure 1, led the way with 29% and 25% of all funds being designated to those two priorities. Community parks (15%), riparian buffers (13%), and water access (10%) followed. The "Other" category (7%) was the least popular.

Figure 1. The Money Station Exercise



Online Survey

In order to accommodate residents that could not attend a public meeting, or who simply prefer providing input from the convenience and comforts of their home, a brief online survey was available from April through June 2015. A total of 150 people participated in the 15 question survey and answered a variety of questions about greenways and open space. An overwhelming 94% of respondents felt it very important to protect Union County's natural and open space resources with stream cor-

ridors, wildlife habitat, and forests being noted as the types of lands that are most critical to protect. Farmland was a close fourth. When asked to identify which benefits of greenways and open space are most appealing participants cited "clear skies, clean rivers, and protected wildlife" the most followed by "providing a place for outdoor recreation" and "bicycle and pedestrian transportation".

Survey respondents equate greenways, open space, and trails with health and wellness as 98% said these resources are important for such purposes in the community. Trails were reported as the most needed outdoor recreation opportunities.

There were two questions related to funding for greenways and open space. In one 83% agreed that it was an appropriate use of funds for local governments to pre-

serve farmland and natural resources, provide community parks, greenways and trails, install riparian buffers, bicycle lanes on roads and water access areas. When asked whether or not they would be willing to personally contribute money annually to preserve farmland, natural areas, greenways and to establish parks, trails and stream buffers, 57% of survey takers indicated a willingness to provide more than \$50 a year for such purposes while 64% supported \$30 or more a year. Only 15% were not willing to contribute at all.



Framework Methodology

Based on the vision and goals, and an analysis of the opportunities presented in Chapter 3, a greenway and open space framework was prepared that defines an overall spatial pattern that efficiently uses existing resources and facilities, adds to the economic prosperity, and promotes the long-term sustainability and conservation of the county's rich natural and agricultural resources. This framework is consistent with and complements the growth management strategy developed as part of the county and municipal comprehensive plans that recommend directing future development into primary and secondary growth areas while conserving natural resource areas. The land use planning principles of focusing new development in an around established communities, preserving rural resources, conserving energy, and conserving fiscal resources are reinforced by this plan.

As can be seen on the Future Land Use Map in Figure 6 of Chapter 2, excerpted from the aforementioned comprehensive plan, a large percentage of the county is proposed to remain as open space. This current planning effort was designed to look at greenways and open space more closely in order to identify more specific priorities for future implementation within the context of this town and country landscape.

The greenway and open space framework started with analyzing and mapping various community, cultural, historic, and natural resources

within the county by overlapping layers of information using Geographic Information Systems (GIS). Conservation priorities were identified through GIS modeling that assigned values to features present on the land. Then public participation results, the vision, and goals were integrated to shape the structure of the greenway and open space system.

The framework establishes a network of hubs and spokes that generally follows and is consistent with the methodology of the Pennsylvania Greenway Plan. Hubs are state forests and other important destinations and the spokes are greenways and open spaces between the hubs that connect natural areas and recreational and cultural destinations with neighborhoods, schools, and employment centers where people live and work. Furthermore greenways (spokes) have been classified into conservation corridors or multi-use corridors in this plan. Conservation corridors/greenways are to promote ecological functionality for improved water quality and wildlife habitat and do not include amenities such as trails. Multi-use corridors/greenways on the other hand are intended to serve multiple functions including environmental, recreational, and alternative transportation objectives.

Greenway and Open Space Alternative Concepts

Several alternative greenway and open space concepts were considered as part of this planning effort. Each of the concepts presented were evaluated generally to assess what public and private actions would be required to implement it, relative costs, expected benefits, likelihood of success, and other relevant factors such as consistency with the stated plan vision and goals. This information was then used to finalize a preferred greenway and open space network concept.

One alternative for the future is to simply maintain the status quo in terms of open space conservation and greenway development. Under this approach the county, municipalities, land trusts, businesses, landowners, and residents would not do anything different over the next 10 to 20 years than what is being done currently. Meaning there essentially would not be a specific plan to follow and no new initiatives would be pursued, which would certainly limit the actions necessary for implementation. On the surface this alternative would be the most economical in the short-term but could prove to be the most costly over the long-term due to the opportunity costs of inaction. The benefits would be fairly marginal as well. Based on the public input, trends, and guidance from the Steering Committee, this alternative does not appear to be viable and would most likely be rejected. Therefore it was ruled out as a preferred alternative.

A second alternative would be to have an integrated multi-purpose greenway and open space network following every major ridge line and waterway within the county which would include conservation buffers along waterways with public access and trails for recreation and transportation. Given the amount of private landownership, concerns noted in the river-front landowner survey, and the sentiments of property owners when the Buffalo Valley Rail Trail was developed, this is likely not an alternative that will have a great deal of widespread support. Also there are critical habitats where public access and recreational use are not desired due to detrimental impacts to the species being protected. Furthermore the cost of developing and maintaining such an extensive trail system would be prohibitive for the county and municipalities to pursue. While the benefits would be extremely high from a recreation standpoint, and it would set an ambitious goal for the future, low implementation success could be expected during the life of the plan. As a result, an expansive multi-purpose greenway and open space network where public access is maximized to the fullest extent was not given further consideration.

A third alternative would be to have all conservation greenways (i.e. riparian buffers) and protected open space that provide no public access to support recreational opportunities and other functions like alternative transportation and cultural and historic interpretation. This approach would theoretically have a higher probability of implementation and the costs would be much more manageable than for

alternative two above. While this might be supported by some, it would not achieve the vision and goals developed based on citizen engagement. The vision statement and goals specifically reference providing opportunities for improved community health and recreation through access to water resources, greenways, open space, parks and trails. Since this would not be consistent with the vision and goals, it was not recommended.

An approach that would appear to be consistent with the vision statement and goals is the fourth alternative which blends elements of the second and third alternatives described above. Envisioned is a network of greenways and open space that would feature both multi-purpose and conservation only areas. Within this system would be a combination of greenway hubs, spokes, habitat blocks, riparian buffers, trail towns, trails, parks, and priority agricultural areas. It is believed this alternative would:

-  Be consistent with the vision and achieve the conservation goals outlined by the public and the steering committee;
-  Strategically provide new opportunities for public access, recreation, and improved health;
-  Balance the interests of private land owners with the overall community;
-  Have a higher implementation success rate; and
-  Would be more reasonable in terms of long-term fiscal impacts.

Therefore this is the preferred alternative that is recommended and will be addressed in the remainder of this chapter. The map in Figure 4 shows the conceptual layout of the preferred greenway and open space network across the county.

Greenway Hubs and Trail Towns

The proposed Union County Greenway system is built upon hubs and spokes (corridors) that are designed to establish a link between communities where people live and work and open space areas and other activity centers; provide connections between points of interest; offer increased recreation opportunities and transportation choices; and preserve open space for wildlife habitat and important ecological functions.

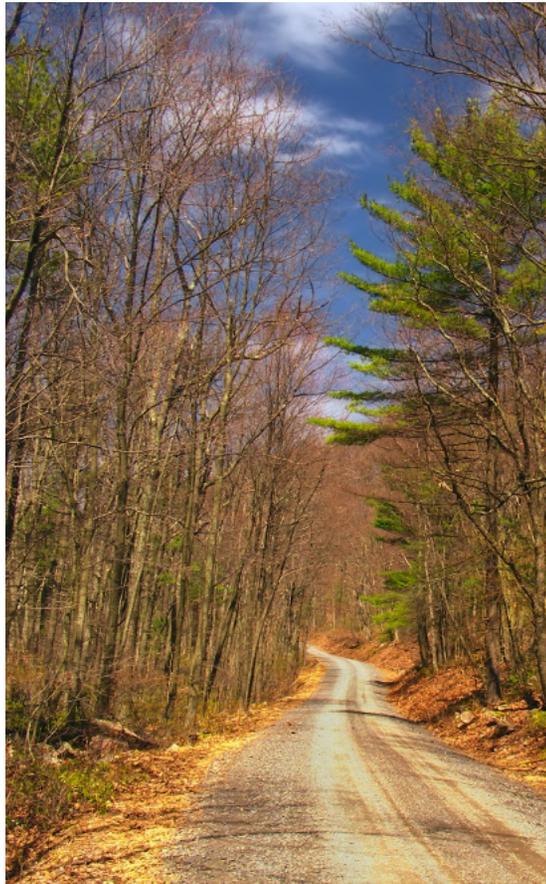
Hubs are areas that feature a high degree of human and/or wildlife activity and are significant destination points within the greenway and open space system. Two hubs have been identified within the county. The first is the Lewisburg area which is designated based on the amenities that are available including lodging, food, a core downtown, fuel, entertainment, recreation, cultural and historical sites, and other services. Additionally it is at the intersection of the Buffalo Valley Rail Trail and the major statewide Susquehanna Greenway corridor, including the West Branch Water Trail. The other hub identified is the Bald Eagle State Forest, which is a major habitat block that provides extensive forest land conservation,



watershed protection, and outdoor recreation. This is a natural resource-based hub that lacks developed amenities, but is a significant activity center for camping, hiking, horseback riding, fishing, hunting, nature study, snowmobiling, and numerous other nature-based activities. It is also an important bird and mammal area and includes a number of sensitive plant and animal species identified in the county Natural Area Inventory.

A hub that is primarily in Northumberland and Snyder Counties, but connects to Union County is the Lake Augusta area that is formed by the City of Sunbury, Northumberland Borough, Monroe Township, and Shikellamy State Park at the confluence of the Susquehanna River's north and west branches. A regional trail network and a Susquehanna River Sports park are proposed greenway related improvements currently being explored within this hub by multiple partners.

Trail Towns, like hubs, are activity centers or destinations along major trails that capture trail-based tourism, whether a rail trail, water trail, or hiking trail. Trail towns support trail users by having needed goods and services available and by providing a location where people can conveniently venture off the beaten path to enjoy other assets. In trail towns the trail often becomes an integral part of the community and is a friendly place that encourages trail users to visit. However trail towns generally are smaller in scale and have fewer amenities available than hubs.

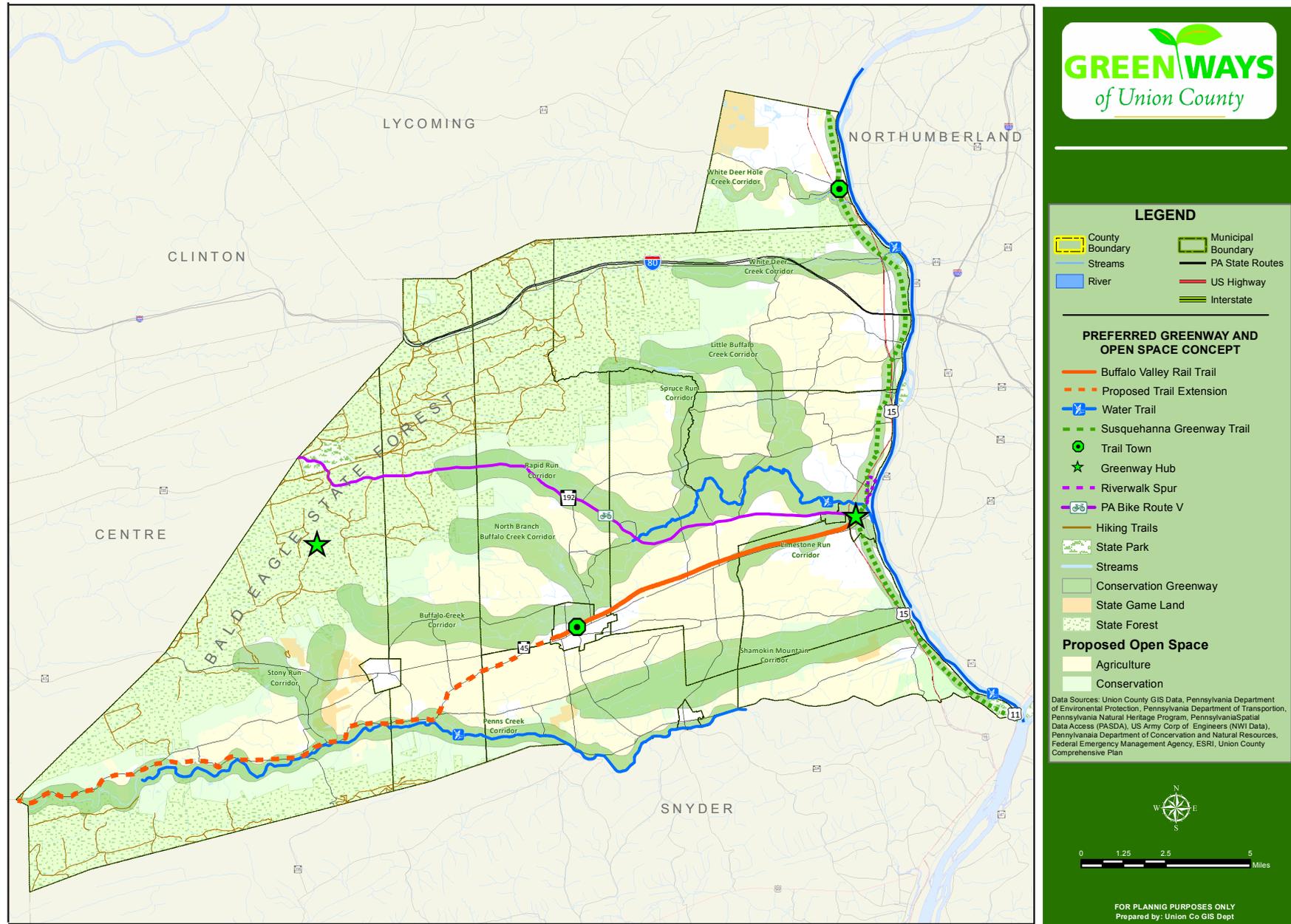


Mifflinburg is designated as an existing trail town and Allenwood is depicted as a future trail town. These are areas that can build a segment of their local economy around an existing or future trail and currently have or are expected to have available food, lodging, fuel and links to other cultural, historic, or natural resource based destinations and points of interest. Additional trail towns could emerge in the future if new trails and routes are established. Greenway hubs and trail towns are identified on Figure 2.

Greenway Corridors Overview

Greenway corridors are the linear segments of green infrastructure that connect hubs, trail towns, habitats, and destinations. In Union County the Susquehanna Greenway along the West Branch of the Susquehanna River that extends from the Lycoming County line in the north to the Snyder County line in the south is a high profile greenway. This is a major statewide greenway that has been planned by the Susquehanna Greenway Partnership and is a regional priority that was originally identified in the Lower West Branch River Conservation Plan developed by the Northcentral Pennsylvania Conservancy. Here the Susquehanna Greenway is proposed as a multi-use corridor that would incorporate public access and a trail system. Initially the access and trail component would be limited to certain sections where the topography is suitable and landowners have expressed an interest in moving this idea forward.

Figure 2. Preferred Greenway and Open Space Concept



Preferred Greenway and Open Space Concept



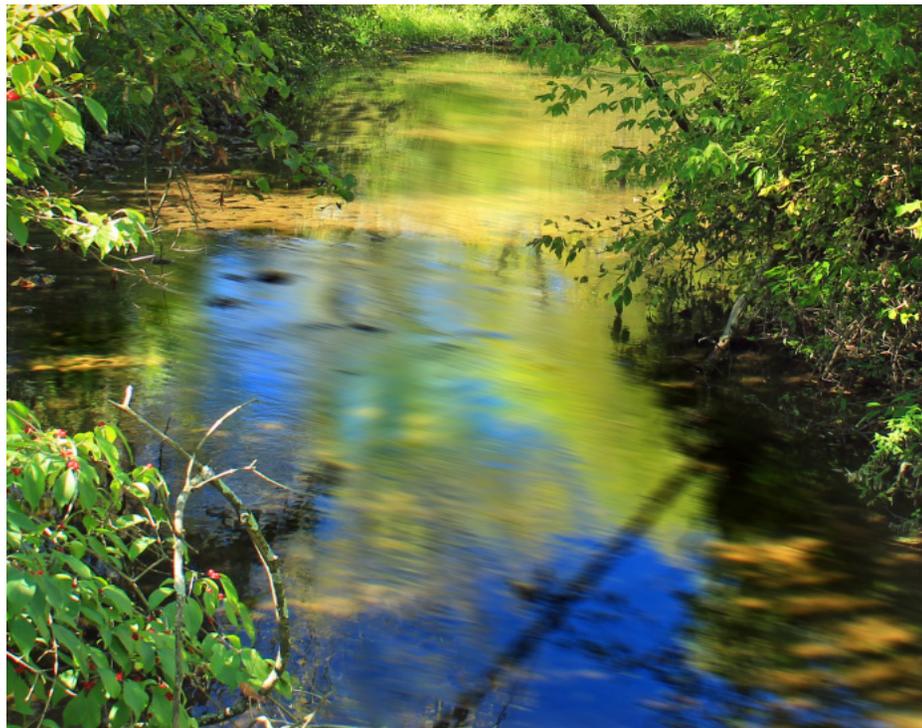
Given that the majority of the corridor is in private ownership, it may take decades to fully implement the trail component that could connect communities up and down the river valley. In terms of conservation, it is recommended that a minimum of 100-foot forested buffer be established along the river for ecological purposes regardless of whether a trail is constructed or not. Greenway corridors for conservation purposes are recommended along all other county streams with the width of the buffer varying by stream. In these corridors public access for the most part would not be encouraged or formalized. It would be the decision of each property owner as to whether or not they wished to allow public access for recreational activities. The reason for this approach is that much of these areas are actively farmed and based on landowner feedback it would appear that conservation greenways, while still posing implementation challenges, would be more acceptable if public access was not included. Also as previously noted the fiscal capacity does not exist at the local level to develop and maintain trails in all these corridors even if the property owners were willing to accommodate them.

The Union County Conservation District in its 2025 Strategic Plan has set a goal for years 2016 through 2019 to increase streamside cropland and pastureland buffers with a 35-foot minimum

of permanent vegetation. On the other hand, the Pennsylvania Department of Environmental Protection recommends 50 feet as the minimum buffer while the Stroud Water Research Center suggests a 100-foot minimum based on research studies they have conducted to evaluate the effectiveness of various buffer widths. The consensus is that riparian buffers are extremely beneficial for treating runoff, storing floodwaters, aiding groundwater recharge, and for providing shade and streamside habitat. However the precise width and composition is still a point of debate among regulatory agencies, scholars, conservation organizations, and landowners. In this plan, we have attempted to suggest recommended minimums for stream corridors in the county,

but recognize that some buffer is better than no buffer at all.

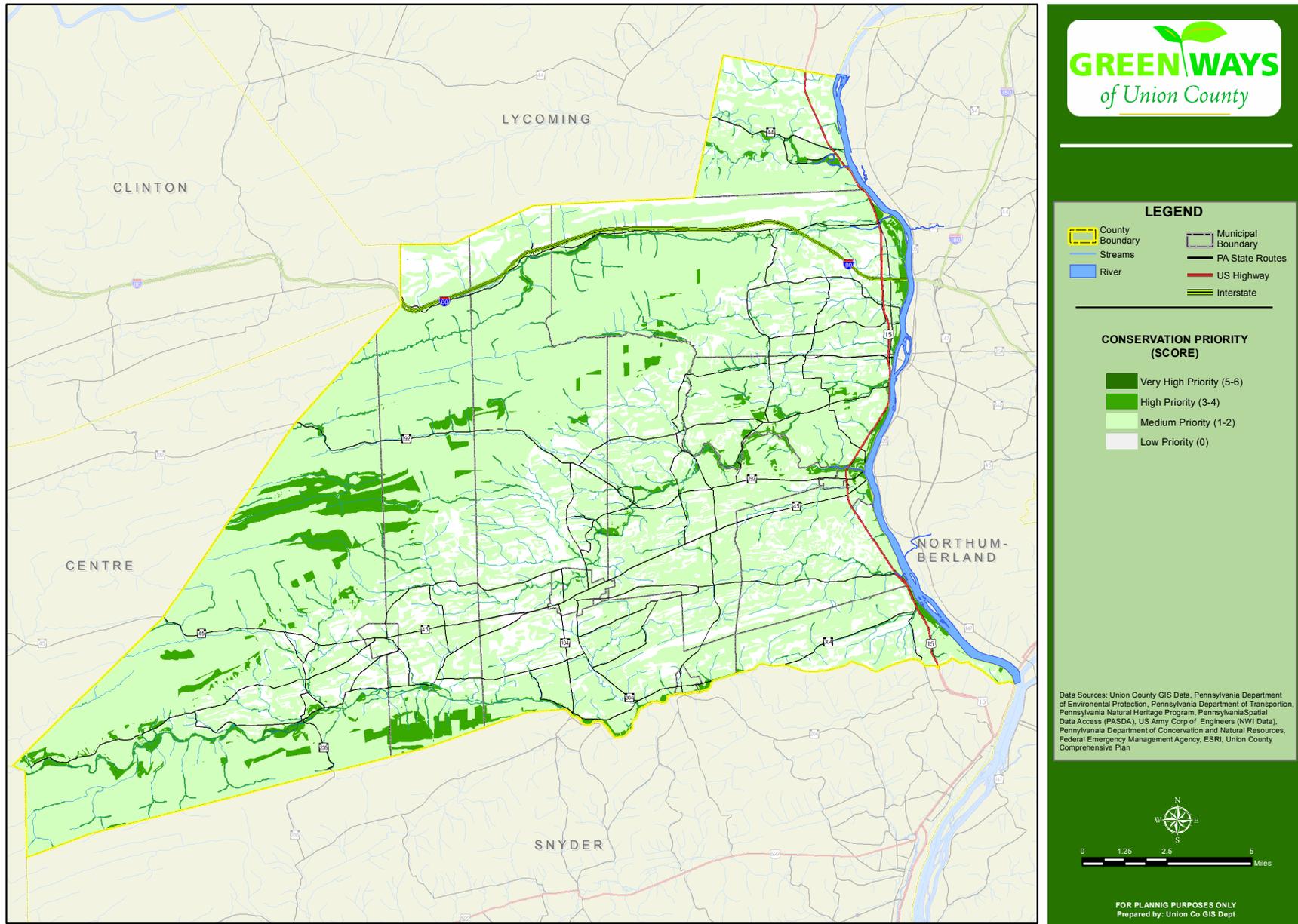
The major conservation greenways proposed, which are shown on Figure 2 and run in an east-west orientation, are White Deer Hole Creek, White Deer Creek, Buffalo Creek, and Penns Creek. On these larger streams and their major tributaries (i.e. Spring Creek, Little Buffalo Creek, Spruce Run, Rapid Run, Laurel Run) existing forested riparian buffers should be retained and areas where buffers are presently lacking should have a minimum of 50 feet established for water quality improvements, bank stabilization, and to provide habitat and wildlife movement corridors. Along other county streams conservation greenways should be established with a 35-foot minimum vegetated buffer.



Priority Open Space

In addition to greenways, priority open space areas, including farmland, were evaluated and identified for future conservation. Using GIS analysis that incorporated a scoring methodology the most critical open spaces in terms of environmental sensitivity were identified. These results are shown in Figure 3. The conservation of these natural resource areas is critical to healthy communities and for maintaining important ecological functions.

Figure 3. Conservation Priority Ranking



Conservation Priority Ranking



Forested watersheds and other open spaces provide for recharge of both surface and groundwater supplies. Native vegetation also contributes to clean air, provides habitat for wildlife, and adds to the aesthetics of the landscape by providing a backdrop for the farm valleys. For the most part a significant number of the priority areas have been incorporated into the proposed greenway alignments since they follow stream corridors or are already protected within the state forest. In addition the Merrill Linn Land and Waterways Conservancy provided a list of properties that it feels are a high priority in terms of open space land protection. These lands are shown on the map in Figure 4 and are in sync with the Conservancy’s Linking Landscapes initiative which seeks to establish new land and ecological connections within the region for the purposes of enhancing the resiliency of protected areas and to halt the loss of biodiversity.

Farmland is valued economically and culturally by county residents and is a way of life for farm families. Whether a full-time or part-time vocation, these activities provide valuable income for farmers and agricultural-related businesses. If agriculture is to remain viable into the future it will be dependent on having a sufficient land base of high quality soils to support production. The map on Figure 5 shows priority agricultural conservation areas located in the Route 44 corridor in Gregg Township, in Kelly Township along Colonel John Kelly Road, in East Buffalo, Buffalo and West Buffalo Townships in the Route 45 and 192 corridors, and along Route 304 in Limestone and Union Townships. There

is also an area along Route 45 that extends from Mifflinburg to Hartleton. The other agricultural lands in the county are also important but were not included in the priority areas either due to having lesser soil quality, lack of imminent development pressure, are planned for future development, or similar factors.

Community parks also serve as important open spaces and recreational activity centers where residents can relax, play, and spend time with friends and family. Currently Union County does not meet the minimum acreage for community parks based on population. As population continues to grow, so, too, will the net deficit in community parkland. The creation of new parks was not identified as a

high priority by the public but it will nonetheless be important for certain growing municipalities, like

East Buffalo Township for example, to provide more community park land that is conveniently accessible to residents. If new parks are not planned and developed, it will likely result in overuse of existing parks, which can detract from the recreational experience for park goers, wear out park facilities and equipment ahead of schedule and negatively impact physical features (i.e. trees, turf, streams).

Trails

Although this is not a trail plan, trails were a common topic of discussion and the focus of significant public input. Greenways often include a trail component, so trails have been incorporated into the greenway and open space framework as appropriate. The highest priority is to complete and maintain the existing trails in the county. Several phases of the Buffalo Valley Rail Trail (BVRT) have been constructed which has resulted in a continuous trail from 10th Street in Mifflinburg to 10th Street in East Buffalo Township. A section from 8th Street to 5th Street with a connector to Market Street has also been recently built in Lewisburg Borough. The BVRT sits within a strip of land that averag-

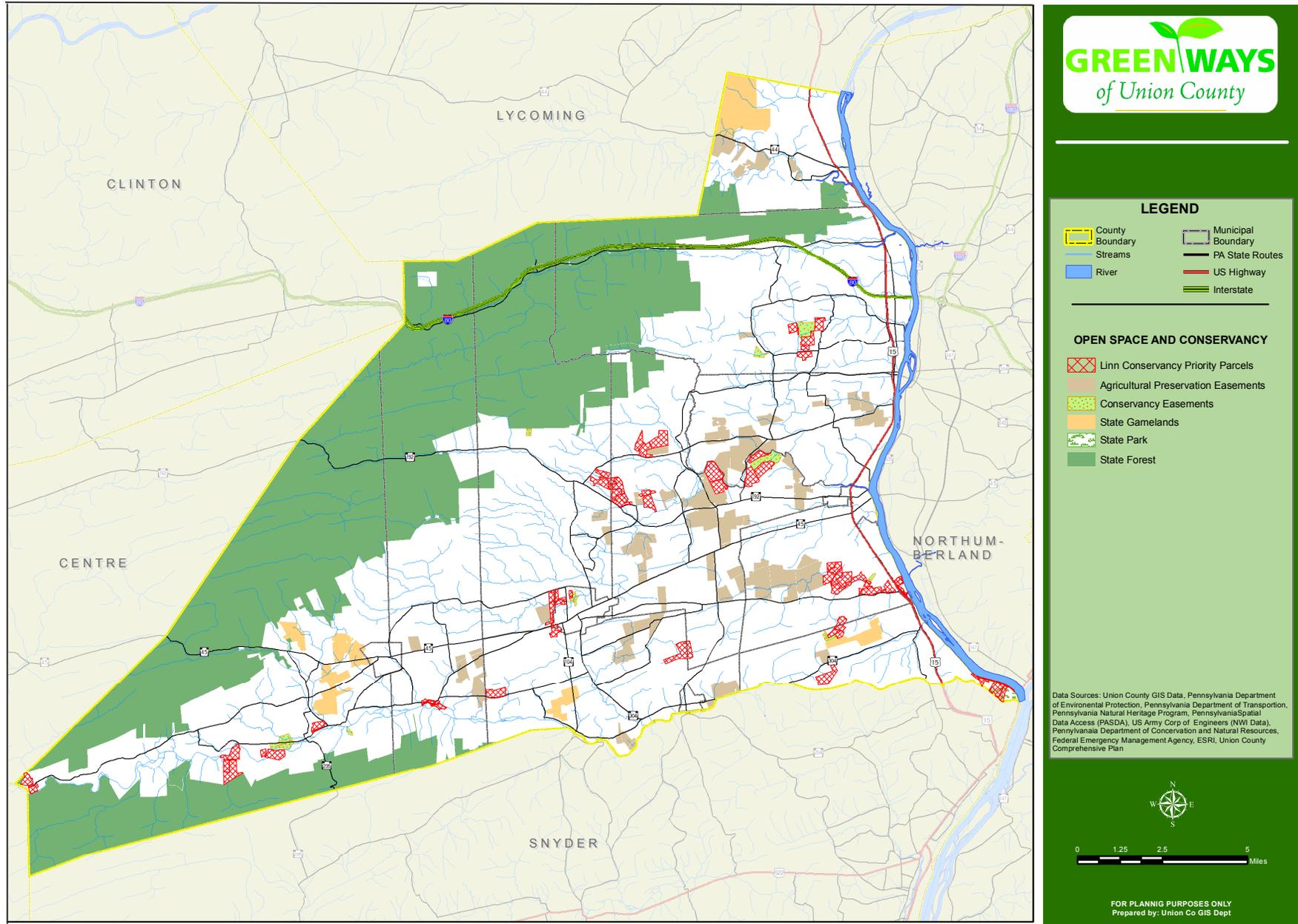
“The very first time I hit the Buffalo Valley Rail Trail, I had an overwhelming feeling of peace. It was one of those early mornings when no other human was on the trail but me. I could hear the birds singing. I could feel the chill in the air. I felt so “full” with all that was around me. And I began to hum a bit as I biked. Life was so good. And since then, it continues to be therapy in so many definitions of life.”

- KJ Reimensnyder-Wagner,
Songwriter/Musician

es 60 feet in width and is a greenway corridor connecting the county’s two largest population centers. The major gap that exists is

the crossing of US Route 15 to complete a link into historic downtown Lewisburg. The public has identified closing this trail gap as a high priority.

Figure 4. Linn Conservancy Priority Parcels



LEGEND

County Boundary	Municipal Boundary
Streams	PA State Routes
River	US Highway
	Interstate

OPEN SPACE AND CONSERVANCY

Linn Conservancy Priority Parcels
Agricultural Preservation Easements
Conservancy Easements
State Game Lands
State Park
State Forest

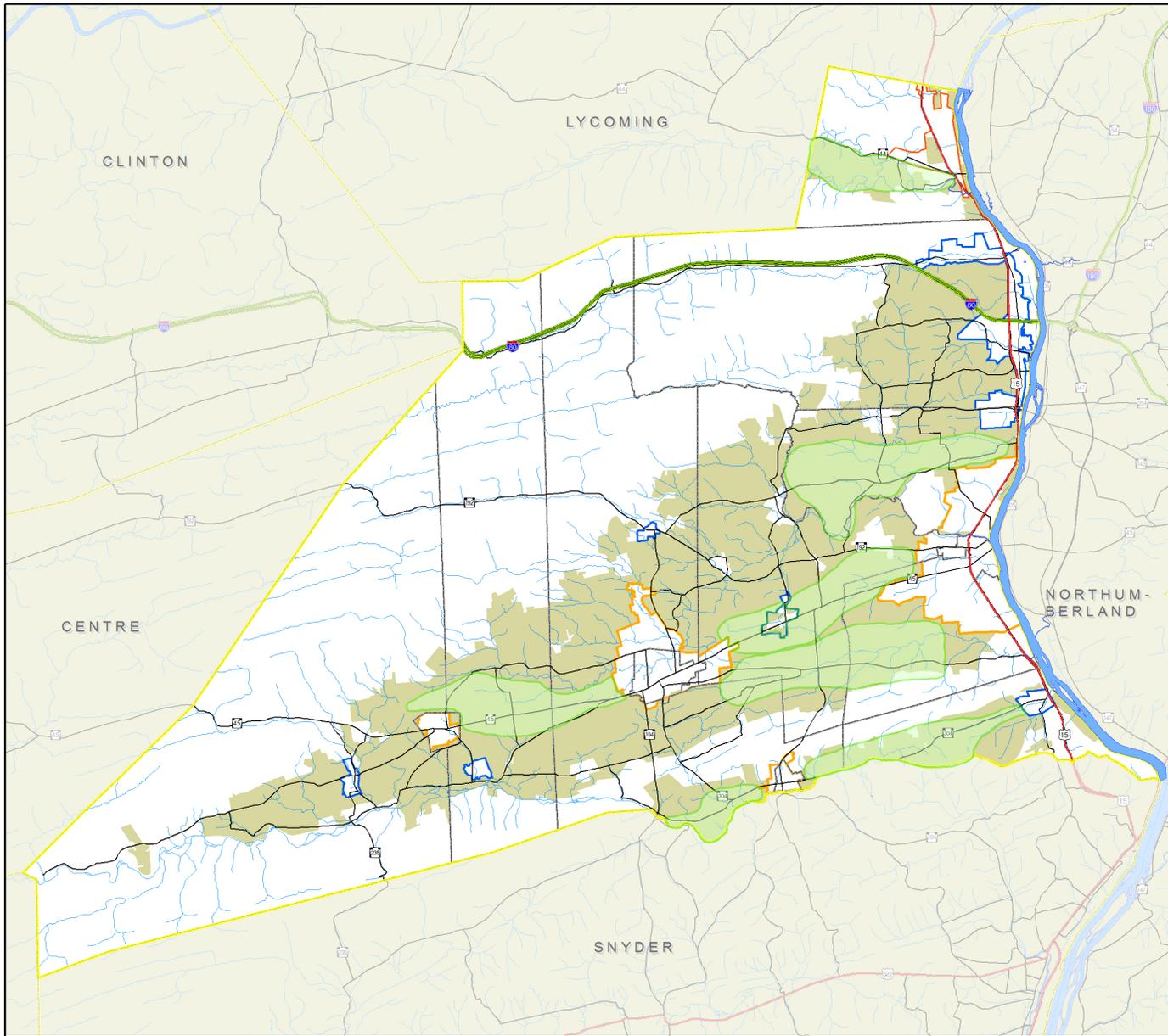
Data Sources: Union County GIS Data, Pennsylvania Department of Environmental Protection, Pennsylvania Department of Transportation, Pennsylvania Natural Heritage Program, Pennsylvania Spatial Data Access (PASDA), US Army Corp of Engineers (NWI Data), Pennsylvania Department of Conservation and Natural Resources, Federal Emergency Management Agency, ESRI, Union County Comprehensive Plan



FOR PLANNING PURPOSES ONLY
Prepared by: Union Co GIS Dept

Linn Conservancy Priority Parcels

Figure 5. Priority Agricultural Conservation Areas



LEGEND

County Boundary	Municipal Boundary
Streams	PA State Routes
River	US Highway
	Interstate

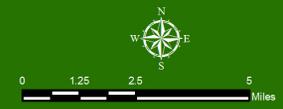
AGRICULTURAL CONSERVATION AREAS

- High Priority Ag Conservation
- Agricultural Conservation (Comp Plan)

GROWTH AREAS

- Primary Growth Areas
- Secondary Growth Areas
- Gregg Township Growth Area

Data Sources: Union County GIS Data, Pennsylvania Department of Environmental Protection, Pennsylvania Department of Transportation, Pennsylvania Spatial Data Access (PASDA), US Army Corp of Engineers (NWI Data), Pennsylvania Department of Conservation and Natural Resources, Federal Emergency Management Agency, Union County Comprehensive Plan



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Prepared by: Union Co GIS Dept

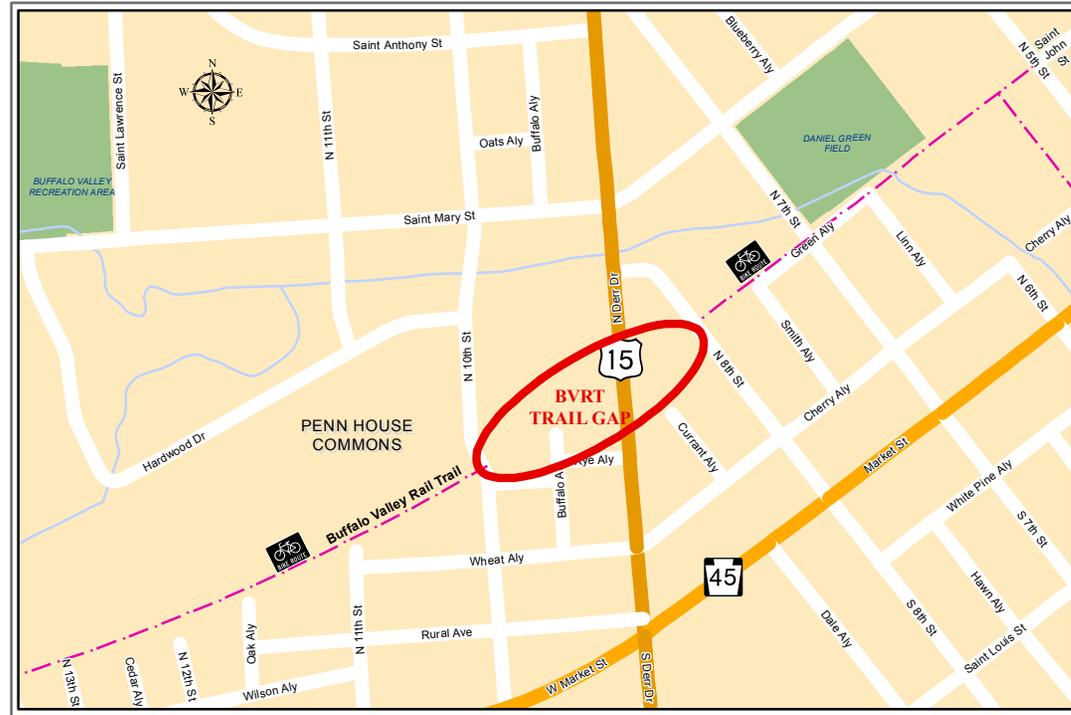
Agricultural Conservation Areas

The other unfinished piece of the BVRT is from 5th Street to the Susquehanna River along St. John Street and the river bridge which was the subject of a feasibility study completed by the Buffalo Valley Recreation Authority. Refer to Figure 6 for the location of the BVRT trail gap and unfinished section in Lewisburg.

There is also interest in extending the BVRT westward from Mifflinburg in order to provide a tie-in to the western part of the county. This would need to be evaluated more closely to determine the most desirable route but it is likely that using existing low-volume roads such as Swengel Road would have a higher probability of short-term implementation success than using the former railroad corridor that was vacated in the 1970s. The ultimate goal is to one day have a route that ties into the Cherry Run Rail Trail and the Penns Valley Rail Trail that is proposed in eastern Centre County should that effort materialize.

In terms of major new trails a riverwalk along the West Branch Susquehanna was frequently mentioned by the public and steering committee as a long-term priority within the greenway. There are several landowners that are willing to partner on this which could serve as a demonstration project for early implementation. In Gregg Township, Union County owns 1.5 miles of riverfront property and/or old rail corridor at Great Stream Commons that joins land owned by Lycoming County to the north. There is the potential to have a trail of approximately four miles in length from the village of Allenwood to Montgomery Borough. Lycoming County has

Figure 6. The BVRT Gap and Unfinished Section



plans in the future to bring a trail system from the Williamsport area to Montgomery and eventually one would be able to travel on a trail from Allenwood to Jersey Shore Borough and then access the Pine Creek Rail Trail which goes 60 miles to Wellsboro in Tioga County. From there a connection is planned to the Genesee Valley Greenway in New York which would form the Genesee-Susquehanna Greenway, extending from Rochester, NY on the shores of Lake Ontario to the Chesapeake Bay in Maryland. The opportunity exists for Union County to be part of this interstate 400-mile mega greenway as seen in Figure 7.

The river frontage south of Allenwood downstream of White Deer Hole Creek has severe topographic challenges and an active railroad line which would result in design solutions that are not economically feasible. Therefore it is recommended that at Allenwood a Susquehanna riverwalk would be routed across the State Route 44 Bridge to tie into the State Route 405 greenway corridor that was proposed in the Northumberland County Greenway Plan. Or in lieu of that it could connect to the river canal trail from Dewart to Watsonstown Borough that was previously proposed by the Warrior Run Community Corporation. In all likelihood it would make the most sense to have the riverwalk/trail on the Northumberland County



Figure 7. The Genesee-Susquehanna Greenway



side It should be noted that in Kelly Township, Albright Care Services has shown a willingness to work with the community to establish a trail on their mile of river frontage. North of the Albright Care toward West Milton, the degree of difficulty for establishing a trail increases due to the physical constraints imposed by the floodway, an active rail line, and US Route 15. It may not be impossible to fit a trail in this alignment,

but it would be challenging once beyond Delta Place north to the village of West Milton.

Presently the railroad from West Milton to Winfield that intersects with the BVRT is an active freight line owned by the Lewisburg and Buffalo Creek railroad. If, in the future, the railroad is not economically viable, it should be railbanked and converted to a trail. An-

other option, should the rail remain profitable and in operation, would be to explore the possibility of a rail with trail from Lewisburg to Winfield since a number of short line railroads have started using this practice in circumstances where other achievable alternatives do not exist. The SEDA-COG Joint Rail Authority, for example, has done this on a very limited basis while the Western New York and Pennsylvania Railroad has been expanding its collaboration with trail groups in recent years. This may not be feasible due to liability concerns of the rail owner and operator or due to the costs involved to construct the trail to the required standards.

There is the potential to have a trail from Winfield to Northumberland, if the property owners are open to the concept and would be willing partners. In this stretch, the railroad bed was vacated decades ago and for the most part is intact and privately held. During the development of this plan, it was learned there might be interest on the part of one or more landowners.

Several other community based trails or pathways were also considered and are worthy of exploring. These include a trail along Penns Creek in New Berlin, a trail or bike lane in Mifflinburg along 8th Street, a connector from the BVRT to the Koons Trail in Mifflinburg, and a trail along Buffalo Creek from Lewisburg Borough to the Dale's Ridge Trail. In addition to the potential trails noted here, there are on-road bicycling opportunities throughout the county on low-volume rural roads. For example, the

Sugar Valley Narrows Road, also known locally as the White Deer Pike, provides a continuous ride from the village of White Deer through the White Deer Valley and Bald Eagle State forest which connects to the Sugar Valley Scenic Bike Route loop identified in the Clinton County Greenway and Open Space Plan. Similarly places like South Creek Road in Gregg Township, part of the Warrior Run Pathways Bike Touring Routes “Spring Garden Ride”, Wildwood Drive in Limestone Township, Creek and Weikert Roads in Hartley Township, and many others around the county offer some roads less traveled for cycling enthusiasts. The Susquehanna River Valley Visitors Bureau has also mapped several routes of interest on its website at <http://www.visitcentralpa.org/things-to-do/outdoor-recreation/bicycling>.

Water trails were also reviewed in addition to the traditional land based trails. The West Branch Susquehanna River is a water trail and a National Recreation Trail that is part of the Captain John Smith network in the Chesapeake Bay watershed. There is also a water trail on Buffalo Creek that has been established locally by the Buffalo Creek Watershed Alliance. The only new water trail recommended in this plan is on Penns Creek from Weikert downstream. It should be noted that an official water trail designation communicates certain expectations to users in terms of available goods, services, and other amenities along the route. As such, there can be considerable investment needed to reach a point where volumes of water trail paddlers can be effectively accommodated. Therefore in the short-term, the goal should be



to improve access to Penns Creek for canoeing and kayaking with the long-term goal of building up to official water trail status once the necessary support infrastructure is in place. Below Weikert there are limited places where people can legally put in and take out canoes without trespassing. Related to water trails, water access points mainly for canoe and kayak launching and fishing were identified as a need during the planning process. Once again, consistent with recommendations in other plans

over the past ten years, river access at Great Stream Commons north of Allenwood in Gregg Township was suggested. On the river another access point is needed in Lewisburg Borough and could be at St. George Street or at a number of other locations including where Buffalo Creek enters the river. At the present time, there are no Pennsylvania Fish and Boat Commission (PA FBC) launches in the county, but there are facilities nearby at the West Milton State Park and Chilisquaque Creek accesses. It



should be noted that this will change with the construction of the Central Susquehanna Valley Transportation (CSVT) project since part of the mitigation plan for developing the highway calls for installing a PA FBC boat ramp in Union Township slightly upstream of and within the shadows of the new river bridge.

Summary

A coordinated network of greenways, open space, and trails as proposed by the preferred alternative accomplishes multiple goals and objectives related to conservation, public health, and transportation. It is responsive to public input received during this planning process and is consistent with and seeks to achieve the priorities noted in other plans completed over the last ten years. In Chapter 5 specific implementation strategies are provided to outline how the preferred greenway and open space framework and recommendations presented in this chapter might be achieved over the life of the plan. This includes priorities, potential partners, lead entities, estimated costs, and potential funding sources.

