



# **KITTATINNY RIDGE CONSERVATION LANDSCAPE**

**A Five Year Conservation Plan**

**AUGUST 2023**





# Acknowledgments

The Kittatinny Ridge Conservation Landscape (KRCL) is a diverse group of organizations, businesses, agencies, academic institutions, and municipalities working together as one voice to “preserve the integrity of the Kittatinny Ridge and Corridor”. The primary partners are the Pennsylvania Department of Conservation and Natural Resources (DCNR), Audubon Mid-Atlantic (AMA), the Appalachian Trail Conservancy (ATC), and The Nature Conservancy (TNC). The work of this group has focused public attention on the importance of the 185-mile-long forested Kittatinny Ridge, and on protecting this area from further habitat loss, fragmentation, and inappropriate land use.

This Conservation Plan is intended to serve as a tool, resource, and framework for strategic, coordinated landscape-scale conservation within the Kittatinny Ridge landscape. Funding for this project was provided through grants from the Landscape Conservation Catalyst Fund of the Network for Landscape Conservation and the Community Conservation Partnerships Program, Environmental Stewardship Fund, under the administration of the Pennsylvania Department of Conservation and Natural Resources, Bureau of Recreation and Conservation. A consulting firm, Resilience Planning and Design, was hired to work with the KRCL Steering Committee to develop the planning process, provide insight and guidance on future conservation priorities and other related goals, and to develop this Conservation Plan.

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# Land Acknowledgment

Kittatinny means “Big Mountain” named by the Lenni-Lenape tribe of Native Americans that inhabited this region. The Kittatinny Ridge Conservation Landscape is land which is the traditional ancestral homeland of the Lenni-Lenape, as well as the Stockbridge-Munsee, the Tuscarora Nation, the Shawnee Tribe, the Seneca-Cayuga, the Saint Regis Mohawk Tribe, the Onondaga Nation, the Oneida Nation, the Cayuga Nation, the Delaware Nation, and the Delaware Tribe of Indians, past and present. We acknowledge and honor with gratitude the Indigenous people who have stewarded this land throughout the generations, as well as having an ongoing spiritual and cultural connection to the landscape. We also acknowledge the hardships they continue to endure after the loss of unceded homelands and forced removal and emphasize the importance of fostering relationships and opportunities that strengthen the well-being of Indigenous communities who carry forward the traditions of their ancestors. The KRCL recognizes the need to forge mutually beneficial relationships with the various Indigenous Tribes and Nations who are connected to this land and is committed to this in the implementation of this Plan.





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# INTRODUCTION

The Kittatinny Ridge—also known as Big Mountain, Blue Mountain, Endless Hill, Great Mountain, and North Mountain in some regions—runs through Pennsylvania for 185 miles from the Delaware Water Gap to the Mason-Dixon Line. The Ridge is the first prominent landscape and it marks the entrance to the Ridge and Valley Region. It is one of the Commonwealth’s most treasured landscapes serving as a vital link in the 1,500 mile-long Appalachian Mountain Range and has been identified as a High Priority Landscape within the Appalachian Climate Corridor by the Appalachian Trail Conservancy. The Kittatinny Ridge Conservation Landscape (KRCL) spans twelve counties and nearly 200 townships and boroughs with approximately 930,000 people. The counties within the KRCL include Berks, Carbon, Cumberland, Dauphin, Franklin, Fulton, Lebanon, Lehigh, Monroe, Northampton, Perry, and Schuylkill.

The Ridge and its surrounding lands represent a scenic place many Pennsylvanians call home, providing beauty, ruggedness, outdoor activity, spirit, ecological services, and access to nature. The KRCL includes 160 miles of the Appalachian National Scenic Trail, 60 miles of the Tuscarora Trail, 3 state forests, 5 state parks, and a variety of other significant natural, cultural, and recreation resources including the Hawk Mountain Sanctuary, Lehigh Gap Nature Center, Waggoner’s Gap, Cherry Valley National Wildlife Refuge, and Delaware Water Gap National Recreation Area. It has been





identified by The Nature Conservancy as one of the most climate resilient landscapes in the Commonwealth. The Ridge provides critical, high-quality interior-forest habitat for dozens of wildlife species. It is an important habitat linkage in the magnificent central Appalachian Forest, connecting forested areas to the north in New England and to the southern Appalachian forests. The Ridge is a Global Important Bird Area for its importance as a migratory corridor and contiguous forest bird habitat for 251 species including Broad-Wing Hawks, kestrels, Ruby-throated Hummingbirds, Eastern Bluebirds, Monarch Butterflies and one of the most threatened migrant song birds in North America, the Cerulean Warbler. Properties across the lower elevations and the many valleys of the landscape are home to agricultural and forest lands and areas of rural, suburban, and urban development.

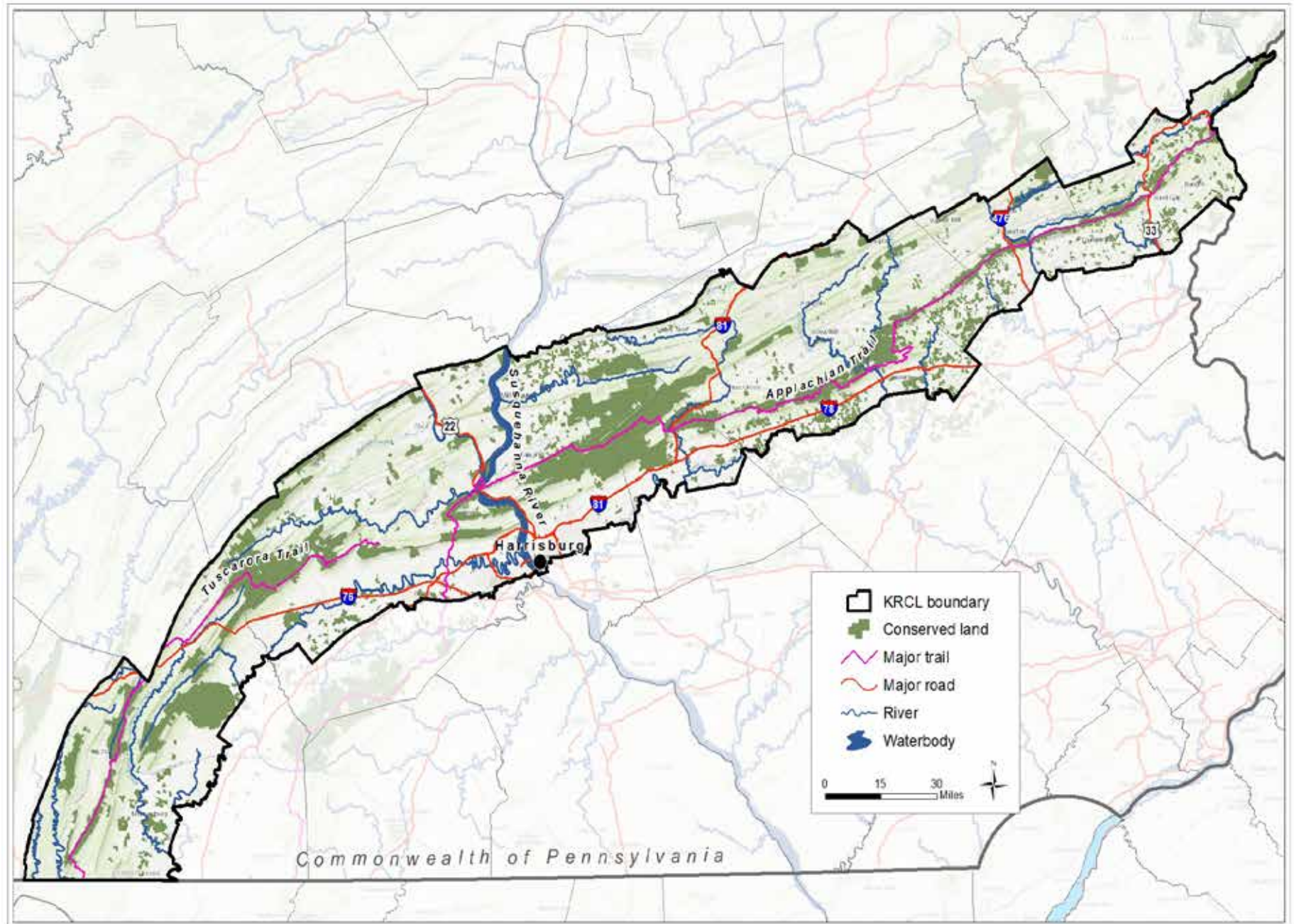
### **Pennsylvania's Conservation Landscape Program**

The Pennsylvania Department of Conservation and Natural Resources (DCNR) designated the Kittatinny Ridge a Conservation Landscape (one of eight in PA) in 2018, making this landscape the youngest to be designated in the program. Founded on a “sense of place,” a Conservation Landscape is a large region where residents, local officials, organizations, and agencies work together to drive strategic investment and actions around sustainability, conservation, community revitalization, civic engagement, and recreational projects. The Kittatinny Ridge Conservation Landscape (KRCL) accounts for 2,158,010 acres of Pennsylvania's Appalachian Mountains and Valleys, which is shown on the map on the following page. 34% of the landscape is protected through federal lands, state lands, private land trusts, or conservation easements.

A core tenant of the conservation landscape approach is the idea that tackling big, multi-jurisdictional projects together, with an emphasis on bringing together a diverse group of partners, can achieve big wins for land protection and stewardship across the state. Other key aspects of the conservation landscape program include leveraging the power of partnership and collaboration to achieve mutual goals, and cross-promoting regional natural assets to reaffirm the



# THE KITTATINNY RIDGE CONSERVATION LANDSCAPE PROJECT AREA







connection between conserving and protecting Pennsylvania’s natural landscapes. This Plan focuses on bringing together a diverse group of partners to accomplish this work, and recognizing historic and present barriers to land use and access.

## The KRCL Strategic Plan

The KRCL is a diverse group of organizations, businesses, agencies, academic institutions, and municipalities working together as one voice to “preserve the integrity of the Kittatinny Ridge and Corridor”. The primary partners are the Pennsylvania Department of Conservation and Natural Resources (DCNR), Audubon Mid-Atlantic (AMA), the Appalachian Trail Conservancy (ATC), and The Nature Conservancy (TNC).

The work of this group has focused public attention on the importance of the 185-mile-long forested Kittatinny Ridge, and on the importance of protecting this area from further habitat loss, fragmentation, and inappropriate land use. In 2020, the KRCL established a five-year strategic plan to guide future activities in the landscape. This included establishing a vision for the KRCL, guiding principles, goals for the group to work towards, and strategies to accomplish these goals.

### The Kittatinny Ridge Conservation Landscape provides:

- Clean and reliable drinking water
- A multitude of recreation options, including hiking on the Appalachian and Tuscarora Trails, hunting and fishing
- An abundance of wildlife, including the world-famous raptor migration
- Breathtaking scenery, both from the top of the Ridge and from miles away
- Economic benefits from the many visitors to the region’s parks, trails, and game lands



## A VISION FOR THE KITTATINNY RIDGE CONSERVATION LANDSCAPE (KRCL)

The following vision for the KRCL was developed during the development of the 2020 Strategic Plan.

Working as a ***synergistic whole***, the Kittatinny Ridge Conservation Landscape draws on collective strengths and broad knowledge to protect the 185-mile long Conservation Landscape that is the Kittatinny Ridge (or the KRCL). We advocate for unbroken forest to provide:

- Protected headwater sources for clean and plentiful water for surrounding communities;
- A scenic Appalachian Trail system experience;
- Outdoor recreational opportunities that are welcoming, safe and available to all;
- Safe passage for resident and migratory wildlife; and
- Natural areas and open spaces which enrich the human mind and spirit.

The Kittatinny Ridge Conservation Landscape is the ***ultimate champion*** for the Kittatinny Ridge, leading and coordinating in the generation of ***funding, research, education, land acquisition, and community involvement*** along the Ridge. It is a ***powerful and inclusive alliance*** where all who love the Ridge gather and work together to protect it. All are welcomed to support and enjoy this national treasure.



## Guiding Principles

As part of the strategic planning process, the following principles were created to guide the work and activities of the KRCL in the future. These principles include:

**1. Conserving the ecological integrity of the Kittatinny Ridge:** The Kittatinny Ridge functions as a critical migratory corridor, a climate resilient landscape, and habitat for a wide array of species. Utilizing current science, advocacy, stewardship, and land protection, the Kittatinny Ridge Conservation Landscape works to conserve the Ridge and its ecological integrity as a large, interconnected landscape.

**2. Serving as a voice for all communities:** Communities along the Kittatinny Ridge are culturally, economically, and demographically diverse. The linear nature of the Ridge can also create a disconnect between the communities who share it. The Kittatinny Ridge Conservation Landscape serves as a platform for community voices and stories, bringing local perspectives to this regional landscape. As a voice for the Kittatinny Ridge, we build trust and awareness among its communities and interest groups locally (e.g. birders, hunters, watershed groups, etc.), and promote recognition of the landscape's importance at a state and a national level.

**3. Preserving a sense of place:** The Ridge is a place to find solitude, recreate, and connect with the land. The values, cultures, history, economies, and stories of local communities - hundreds of thousands of Pennsylvanians strong - are tied to the Ridge and its valleys. We are committed to conserving the natural landscape for the spiritual and intellectual well-being of those who call it home.

**4. Building success and strength through a shared vision and collaboration:** The Kittatinny Ridge Conservation Landscape is a diverse network of stakeholders from both the private and public sectors. We are scientists, educators, land stewards, land trusts, farmers, foresters, researchers, naturalists, and members of many communities, counties, and state agencies committed to protecting our natural and cultural heritages. We all bring different reasons why we work to conserve the Ridge, and we find strength, flexibility and inspiration in that diversity.

**5. Committing to thriving, resilient communities:** The KRCL includes 12 counties, nearly 200 boroughs and townships, and portions of the Delaware, Lehigh, Schuylkill, and Susquehanna River watersheds. Millions of people depend on the clean air and water, timber, and agricultural products produced by the Ridge and its rural Corridor. Maintaining clean water, farmland soils, healthy forests, grasslands, and wetlands will build resiliency and enable the region to thrive economically for generations to come.



## Goals for the KRCL

The primary goals for the KRCL identified during the strategic planning process include:

- Identify and protect biologically important land and open space to advance wildlife and water conservation along the Ridge.
- Build community identification with, and ownership in, the Kittatinny Ridge as a critical and valued natural asset.
- Collaborate with counties, municipalities, and other organizations along the Ridge to contribute to their collective understanding of the ecological, economic, recreational, and social values of protecting the Ridge and advance the adoption of land-use, sustainability and climate resiliency plans, programs and policies which foster its natural health.
- Welcome and invite a diverse network of partners to join the conservation planning process. As the leadership team of the KRCL looks towards increasing land protection and stewardship goals, it acknowledges that building relationships with populations, communities, and organizations that have historically been overlooked by traditional conservation efforts will be critical to achieving its goals.
- Promote science as a basis for the Kittatinny Ridge Conservation Landscape's recommendations/actions by enlisting support from academicians and scientists who generate research that is relevant to the Ridge.





## Purpose of the Conservation Plan

A primary goal of the KRCL Strategic Plan is to identify and protect biologically important land and open space to advance wildlife and water conservation along the Ridge. To achieve this goal, the strategic plan identified the completion of a comprehensive land conservation plan to guide future, coordinated conservation efforts in the Kittatinny Ridge landscape.

The Kittatinny Ridge and its supporting landscapes are threatened by development pressure, climate change impacts, recreational overuse, and lack of stewardship. The Conservation Plan responds to these threats, and others, by framing a strategy for coordinated land conservation, natural resource protection, and land stewardship in the future. Prior to the development of this plan, the KRCL, spearheaded by The Nature Conservancy, identified high priority natural lands and ecosystems in need of protection.

Building on this work and in alignment with the Conservation Landscape model, the holistic conservation planning framework within this Plan acknowledges that future land protection projects and initiatives should also focus on benefiting the people and their communities within the landscape. To take a broader look at the conservation and protection of the KRCL's natural resources, this Plan integrates ecological connectivity, outdoor recreation, equity, climate change, governmental action, and economic development into its guiding framework.

## Landscape Partners

A landscape-scale conservation plan like this will be implemented by a diverse group of partners working together to accomplish mutual goals. This will involve building meaningful relationships with each of these groups. These include, but are not limited to:

- Non-Profit Organizations
- Nature Centers
- Land Trusts
- State and Federal Government Entities
- County Conservation Districts
- County Planning Commissions
- Township and Borough Officials
- Chambers of Commerce
- Tourism and Economic Development Organizations
- Indigenous Tribes and Nations
- Local Businesses
- Clubs and Chapters
- Outdoor Recreation Users
- Community-Based Organizations
- Residents of the KRCL





This Conservation Plan will:

**INCREASE COORDINATED AND HOLISTIC LAND CONSERVATION, NATURAL RESOURCE PROTECTION, AND STEWARDSHIP INITIATIVES**

- Encourage the identification of conservation opportunities from a holistic lens, integrating the ecological, social, recreation, and economic aspects of land protection, to expand the partner network and capacity for this work.
- Promote a coordinated, landscape-scale approach to direct land acquisition and conservation easement protections in the future.
- Protect, restore, and maintain ecosystems and natural resources on the Ridge and in adjacent low-lying areas. Pursue projects at multiple scales, from broader landscape scale projects to smaller community-scale initiatives.
- Increase habitat connectivity and enhance climate change resilience through land protection and policy.





### **PROMOTE THE KRCL'S SENSE OF PLACE AND BUILD COMMUNITY IDENTITY AROUND OUR SHARED NATURAL SYSTEMS**

- Raise awareness of the Ridge and the surrounding natural landscape and how nature contributes to the health and wellbeing of communities and the economy.
- Promote the shared vision for the KRCL and build community identity around our shared resources.

### **SUSTAIN AND EXPAND OUTDOOR RECREATION RESOURCES AND ACCESS**

- Preserve and grow outdoor recreational opportunities, provide additional recreational access, and enhance recreation connections and corridors.

### **SUPPORT NATURE-BASED ECONOMIC DEVELOPMENT**

- Promote nature-based placemaking and economic development to positively impact local economies in the landscape.
- Educate decision makers about the financial benefits of natural systems in the KRCL.

### **BUILD A STRONG AND DIVERSE PARTNER NETWORK**

- Welcome and invite a diverse network of partners to join the conservation planning process. Build and sustain reciprocal relationships.
- Inspire residents, local officials, organizations, and agencies to work together to drive strategic investment and actions around sustainability, conservation, community revitalization, civic engagement, and recreational projects.
- Embrace equity and inclusion as guiding principles in conservation planning work to ensure an equitable distribution of conservation benefits.



## Building on a Foundation of Great Work

The Conservation Plan builds on the work that the KRCL and other partners have been engaged in to achieve shared goals related to land conservation, stewardship, municipal outreach, community development, and communications. A full list of the documents, reports, and studies reviewed to inform this Conservation Plan are included in Appendix C.

***Ecological assets and threats to the Ridge are well-documented***, especially when examining data, studies, and reports maintained by the individual partners involved in land protection efforts throughout the KRCL. For example, the value of the Kittatinny Ridge landscape in providing significant wildlife habitat and corridors for wildlife movement is acknowledged by many entities working in this region. Additionally, the impacts of development activity on habitat fragmentation is also well-reported.

***Significant land conservation work has happened across the KRCL in the last several years through the Kittatinny Land Partnership***. 25,000 acres were conserved across the landscape between 2015 and 2022. For example, in 2020, The Nature Conservancy, with support from the Appalachian Trail Conservancy and the Appalachian Trail Landscape Partnership, conserved 1,100 acres of land that expanded the existing Cove Mountain Preserve to help sustain important habitats for native species, reinforce climate resilience, and protect the views and hiking experience of the Appalachian Trail.

***Financial benefits of nature and open space are becoming increasingly important considerations in community planning and decision processes***. In the past, the value of benefits had often been overlooked or considered unlimited. However, as awareness of the tenuous nature of healthy ecosystems has increased, communities have expanded nature-based strategies designed to preserve them as important assets that sustain quality of life and the economy.

Economically, the Kittatinny Ridge provides significant revenue and financial benefits. Audubon's "Return on Environment" research shows the annual value of open space in the KRCL is approximately \$1 billion dollars per county. For example, nature in Monroe County annually generates \$1.1 billion dollars in natural system services savings; \$164 million dollars in savings due to healthy riparian areas; \$368 million in local outdoor recreation revenue; \$10 million dollars in agricultural retail sales; and \$67 million in savings from reduced healthcare costs.



***Nature-based placemaking is an emerging framework in the region linking conservation and economic development.*** Nature-based placemaking refers to the interaction and integration of a community's natural assets, economic activity around those assets, and the culture of the community towards both the assets and activity.

***Communities and counties across the KRCL region are made up of diverse residents and cultures*** that deserve targeted, unique communications and interactions to become more involved in conservation work. This was gleaned from an analysis completed by Shippensburg University on demographic types present among residents across the KRCL to help better identify strategic methods to communicate the value of conservation in the KRCL.

***Equity and conservation are an emerging focus in land conservation work,*** including the acknowledgment of historic and current barriers to nature stewardship, ownership, use, and access (especially for youth, older individuals, People of Color, persons with disabilities, etc.) and working alongside those communities to dismantle those barriers. Many land trust organizations, municipalities, and state agencies have built diversity, equity, inclusion, and justice into their strategic plans and are prioritizing this in conservation and outdoor recreation projects.

***Pennsylvania has long been an “outdoors state” and outdoor recreation activities such as hiking, fishing, hunting, camping, and others are embedded in the state’s culture.*** According to the Pennsylvania 2020-2024

Statewide Outdoor Recreation Plan, 90% of Pennsylvanians surveyed participated in outdoor recreation activities. Statewide priorities for outdoor recreation planning include increasing access to outdoor recreation opportunities for all Pennsylvania residents and addressing challenges related to maintenance and funding.

***Greenways are prioritized in future conservation efforts from the local to the state levels.*** For example, many of the county open space plans that identify conservation priorities across the landscape utilize the guiding framework of creating connected green networks of “hubs and spokes”, or green corridors and trails that connect open space parcels. This approach is being used to coordinate both land protection and outdoor recreation goals.

***Shared regional open space and recreation resources offer opportunities for collaboration.*** The Appalachian Trail and the Tuscarora Trail represent two recreation opportunities that span multiple jurisdictions, municipalities, and landowners and represent places where partnership could help increase capacity and resources for specific projects.

***Climate resiliency is an increasingly important priority among land protection organizations, agencies, and county and local government.*** For example, the Appalachian Trail Conservancy, which oversees the protection and management of the Appalachian Trail, is part of an effort called the A.T. Landscape Partnership. This effort focuses on protecting critical natural landscapes beyond the corridor of protected lands around the A.T in response to increasing

development and climate change impacts.

***Maintaining and restoring ecological connectivity, which facilitates the movement of wildlife, has risen as an important strategy for conservation in the face of climate change.*** Landscape conservation is a significant component for increasing climate change resiliency, providing enhanced carbon storage, and creating pathways for wildlife migration and future habitats. For example, The Nature Conservancy is working with a variety of partners on strategic land protection efforts to protect migratory pathways and areas of high biodiversity to create “climate-resilient corridors” that link protected parcels together to increase ecological integrity and function. The Pennsylvania Natural Heritage Program has also developed a climate connectivity mapping analysis tool that highlights a statewide network of connected and resilient high biodiversity value terrestrial areas.

***Culturally and historically significant places, such as the Delaware Water Gap, are significant elements of the KRCL, its sense of place, and its identity.*** The Kittatinny Ridge reflects Indigenous, colonial, and modern history. There are many partners working to elevate and preserve this history throughout the landscape.

***Natural resource and stewardship projects are happening at multiple scales,*** from large-scale land protection efforts on the Ridge to the greening of the built environment through street trees, pollinator gardens, and green infrastructure in communities throughout the landscape.

***Watershed and water resource protection continues to be a major environmental priority for communities across the landscape.*** These are being worked on across scales in both urban and rural communities throughout the region. The KRCL’s headwater streams are valuable to wildlife and people throughout the landscape and provide another means of connection.

***Military installations represent potential partners in land conservation,*** particularly as protection of military installation buffer lands that contribute directly to resource conservation and habitat protection. In recent years, the US Department of Defense has placed an increased emphasis on incorporating climate change resilience and adaptation concepts into its master planning, security policies, and training missions; military installation-level conservation land programs contribute to protecting important climate resiliency-related features. These important benefits of military-related land conservation can help enhance the reach, ability, and financial resources of ‘traditional’ land conservation partners in the KRCL to complete important land conservation projects.





## Public Participation

The outreach and engagement efforts for this conservation planning initiative targeted a broad range of participants to both guide the development of the Conservation Plan and ensure diverse feedback informed its content. The Conservation Plan was informed by the following community outreach activities:

## VIRTUAL SUMMIT

This online summit was held as a kick-off event on April 19, 2022, for the Conservation Plan project and had participation by conservation partners from throughout the region. At the summit participants were provided an overview of the conservation planning process, engaged in a discussion of the future of conservation and presented an emerging framework that explored future conservation through the lenses of ecological connectivity, recreation, economic development, and equity. Seventy-four people attended this event via Zoom, and it included a keynote address by Kathy Henderson, Director of Economic Development of Carbon Chamber and Economic Development Corporation, and a discussion about the emerging conservation framework and what specific outcomes participants hoped to see in the Conservation Plan. The summit was advertised through the project website, social media, the KRCL digital newsletter, and through direct invites.

## TARGETED IN-PERSON COMMUNITY MEETINGS

In May 2022 four in-person meetings were hosted in different geographic areas of the KRCL to collect feedback for the Conservation Plan. The purpose of these meetings was to take a deeper dive into specific areas and topics related to land conservation and protection, and to gather input from a wide range of individuals with different perspectives, backgrounds, areas of interest, and expertise. Attendees, who were personally invited to attend the meetings, included representatives from non-profit organizations, land trusts, state agencies, Environmental Advisory Councils, county conservation districts, county planning commissions, townships and boroughs, tourism organizations, businesses, clubs and chapters, social welfare organizations, and outdoor recreation user groups. Meetings were held in Lehighton, Kempton, Harrisburg, and Carlisle. These meetings focused on conversations around the intersectional topics of land protection, outdoor recreation, tourism and economic development, municipal outreach, and equity and inclusion.

## KEY THEMES FROM TARGETED COMMUNITY MEETINGS

For more information on survey findings, please visit Appendix \_.

- ***Demand for open space and recreational opportunities has been increasing, as has stewardship and maintenance needs for these spaces.*** There is a need to balance increasing public access with adequate stewardship of natural landscapes.
- ***There is a need to better serve the landscape's underrepresented and marginalized populations*** in the conservation planning process in both urban and rural communities.
- ***Communities throughout the landscape have their own identity.*** Strategies that include recruiting local ambassadors, developing localized communication campaigns, and partnering with local organizations and entities who have specific ties to an area of the KRCL should all be considered moving forward.
- ***There is a need to tell the story and vision of the Ridge and landscape in a compelling way.*** This should emphasize the full identity of the Ridge beyond its natural landscapes to encompass the culture, community, and sense of place.
- ***For communities further away from the Ridge, finding what is most important to them is key to engaging a broader audience in this work.*** Examples include taking a watershed approach and connecting conservation efforts to access to clean water and maintaining water quality, riparian corridors, and aquatic habitats.
- ***There is a need for better inter-organization communication.*** It was said that often organizations and partners get stuck in their own boxes and don't have capacity, time, or a platform to communicate with other groups. Efforts should be made to advance inter-organization communication.
- ***Municipalities hold an important position in land use planning and land protection.*** There is an opportunity to protect more natural lands in the KRCL through conservation easements and land purchase. There is also an opportunity to preserve natural assets and create more green space through zoning and land use policy. Additionally, government officials can play a role in connecting land protection with outdoor recreation and economic development efforts.
- ***Agricultural lands and viewsheds represent important natural resources*** deserving of protection in the KRCL.
- ***Continue to value, reinforce, and evaluate the economic benefit that open space provides*** to municipalities and communities.
- ***Working with private landowners*** to conserve land and, in some cases, expand outdoor recreation access remains a challenge.







## KEY THEMES FROM SURVEY

- 86% of survey respondents indicated that they or their agency/organization/business/or community identify with and feel connected to the Kittatinny Ridge Conservation Landscape region.
- The top goals/priorities indicated by survey respondents in their work include water resource protection, wildlife habitat protection, stewardship, outdoor recreation, and environmental education.
- 63% of respondents indicated that their agency/organization/business/or community would be willing to collaborate on projects related to this Conservation Plan.
- To participate in collaborative conservation projects, many respondents indicated the need for better partner relationships, networking opportunities, and funding.
- 51% of respondents said they would be interested in attending future events, trainings, or webinars related to conservation and stewardship of the KRCL.
- 64% of respondents indicated they would be interested in attending an annual gathering of the KRCL partners to network with others about landscape-scale conservation and the work of other partners.
- A diverse range of potential implementation actions related to equity and inclusion, networking and collaboration, and recreation priorities were submitted by respondents.







# LANDSCAPE ANALYSIS

To plan for the future conservation, stewardship, and restoration of natural systems in the Kittatinny Ridge Conservation Landscape (KRCL), a landscape analysis of the entire region was completed to better understand threats, challenges, and opportunities for collaborative, place-based initiatives that protect what people love about this area. A summary of the major threats and challenges facing the Kittatinny Ridge landscape is included in this section. Additionally, an in-depth analysis of inclusive conservation opportunities through the lenses of ecological priorities, equity and social inclusion, and recreational access is also included in this Plan as a way to identify potential initiatives that provide numerous co-benefits to people and nature. Lastly, this analysis was also examined through subregion areas of the landscape to further parse out potential conservation priorities moving forward.





## Threats and Challenges

Like most areas along the East Coast, the Kittatinny Ridge landscape faces challenges that threaten the many benefits the landscape provides to wildlife and habitats, families, and communities within the KRCL. These are described in greater detail below.

### DEVELOPMENT PRESSURE

Much of the KRCL is vulnerable to future development pressure. The KRCL includes nine out of the top 20 fastest growing counties in the state, making it particularly susceptible to residential and commercial development, including warehouse construction and high-voltage transmission lines that disrupt large tracts of forest, decrease water quality, impact views of the natural landscape, and cause habitat loss. There is concern that scenic vistas of the Appalachian Trail, and of the Ridge itself, will be impacted or obscured by additional development. Many of the outdoor recreation activities community members enjoy within the landscape, such as hunting and fishing, depend on intact forestland and clean, healthy waterways. Additionally, unprotected portions of the Kittatinny Ridge landscape are experiencing rapid conversion of farmland into residential and commercial warehouse development. Farmland remains a significant

part of the Commonwealth's heritage and supports the state's food system.

### LAND OWNERSHIP

While the core Ridge has a significant amount of conserved forest, including five state parks and three state forests, most land is privately owned and unprotected from development. Nearly two-thirds of the Ridge's 500 square miles are privately owned, its management status unknown, and unprotected. Contacting and engaging interested landowners in conservation activities requires investment from multiple partners.

### INVASIVE SPECIES AND OVERABUNDANT WILDLIFE

The Hemlock Woolly Adelgid and Elongate Scale is causing a severe decline in hemlock trees, and the Tree of Heaven is out-competing native plant species. Invasive vines, such as Oriental Bittersweet, Japanese Honey-Suckle, and English Ivy, often outcompete native plants for available resources and choke out less aggressive native plants, while also damaging native tree species. Additionally, many years of an increasing white-tailed deer population have resulted in severe forest degradation throughout the landscape.



## **WATER QUALITY IMPACTS**

Water is an invaluable resource that provides numerous benefits. The Kittatinny Ridge drains portions of the Delaware, Lehigh, Schuylkill, and Susquehanna River basins. There are 6235 miles of streams and rivers that serve as a critical network of water resources supporting and providing clean and reliable drinking water for counties within this landscape, as well as providing important wildlife habitat. Headwaters for the KRCL's stream and river network start on the Ridge and flow down into the valleys and lower elevations where most communities exist. What happens in this area of the region impacts water quality, especially in low-lying areas of the landscape. Keeping forests intact and connecting them through vegetated riparian or upland corridors is essential for protecting water quality.

## **CLIMATE CHANGE**

Nature provides great protection against climate change. The ability of healthy forests to sequester carbon, reduce temperatures, and absorb storm water can help communities avoid the impacts of a changing climate, like flooding, erosion, extreme heat and cold events. Climate plays a significant role in local conditions, such as growing seasons, habitat quality, energy costs, tourism, and recreational activities. A changing climate also causes an increase in the frequency of flooding, wildfires, blowdowns, and other natural disturbances, which create challenges for communities. Rising temperatures and extreme weather events are altering and destroying habitats, causing plants and animals to shift their ranges

## **CLIMATE CHANGE IN PENNSYLVANIA**

Pennsylvania has experienced measurable changes in temperature, precipitation, and storm intensity. Since the early 20th century, temperatures have increased more than 1.8° F. Winter temperatures have risen even faster, increasing 1.3° F per decade from 1970 to 2000 in the northeastern U.S. The frequency of very hot days has also increased significantly. Record high temperatures in the U.S. in 2017 outnumbered record lows by 9:1, and by the middle of the century the northeastern part of the country is expected to see 20 to 30 more days above 90° F. Annual precipitation has increased about 10 percent over the past 100 years, and heavy precipitation events also have increased significantly.

According to the 2014 National Climate Assessment, the heaviest downpours, which are the number of days where the total precipitation exceeded the top 1 percent of all rain and snow days, have increased by 71 percent in the Northeast. Looking to the future, Pennsylvania is projected to be as much as 5.4° F warmer by the middle of this century than it was at the end of the last century if emissions aren't curtailed significantly. Additionally, annual precipitation is expected to be 8 percent higher by the middle of this century, and winter precipitation is expected to be 14 percent higher.



northward and to higher elevations. Interacting stressors such as insect pests, pathogens, and climate change will be, and are, affecting native trees and plants, animals, and rare and endangered species. These changes could lead to disruption of ecosystem processes and functions; changes in the timing of natural cycles; loss of diversity in native trees, shrubs, and understory plants; shifts in forest community composition; and impacts on the Commonwealth's forest products industry.

The good news is that the forested areas of the KRCL allow wildlife to move safely within and between natural areas to escape rising temperatures and increased floods or drought. As climate change impacts alter habitat, scientists believe ecosystems like those found along the Kittatinny

Ridge, so long as the natural landscape remains intact, can be sustained. With appropriate measures, the KRCL will be strong enough to continue providing safe places for diverse plant and animal species, while also providing clean drinking water, economic income, and other vital services people rely on for survival.

Climate Change Vulnerabilities include:

- Changing forest composition
- Impacts to rare species
- Forest pests
- Invasive plant species
- Fragmented habitats
- Extended recreation season
- Limited winter recreation



- Increased Flood Risks
- Warmer Water Temperatures
- Natural Disasters and Public Safety
- Energy Demand and Infrastructure
- Reducing Atmospheric Carbon
- Public Safety and Health Risks

## **POLLUTION**

State forests and remote areas accessible by gravel roads are common targets of illegal dumping of furniture, tires, junked automobiles, appliances, construction debris, and general refuse. Pollutants from illegal dumping impacts forest health and water quality. Additionally, if unchecked, this behavior creates a culture antithetical to the goals of the KRCL.

## **OUTDOOR RECREATION DEMAND**

According to the latest 2020-2024 Pennsylvania's Statewide Comprehensive Outdoor Recreation Plan, demand for outdoor recreation has been increasing by at least 3.1% per year for the past several years. The COVID-19 pandemic has further illustrated the importance of outdoor recreation and natural areas on quality of life for communities. As the outdoor recreation industry grows, so too do the demands on recreation facilities and operations. In some portions of the Ridge, such as Monroe County, recreational tourism has been one of the fastest-growing sectors in the local economy. An increase in outdoor recreational usage and demand also poses stewardship challenges, especially since so many recreation areas are volunteer managed.

## **COMMUNITY OUTREACH**

Many people who live on or near the Ridge do not recognize the many natural, recreational, and historical resources of the Kittatinny Ridge and landscape. Many municipalities also do not have the resources to enforce conservation ordinances and natural resource regulations, and some communities and landowners are reluctant to support land use controls. Conservation issues and challenges typically span jurisdictional boundaries, and many existing, jurisdiction-specific plans overlap. An example of this overlap may be state and municipal plans. Achieving the conservation goals laid out in this plan will require action and collaboration at all levels, including at the state, regional, and local level. To achieve this, extensive outreach with the various entities who hold, conserve, or steward natural lands throughout the landscape and a direct approach to engaging them in future conservation efforts is needed.

## Overview of the Landscape Scale Analysis

The Kittatinny Ridge Conservation Landscape (KRCL) is composed of natural landscapes, communities, historic places, outdoor recreation opportunities, and diverse populations of people. In planning to address future challenges and threats that pose risks to the landscape and to meet the goals laid out in this Conservation Plan, a landscape-scale analysis of ecological priorities, demographic diversity of communities, and recreational access needs was completed. Figure 1 shows the overlapping themes. The purpose of this approach was to identify and analyze the varying needs and opportunities throughout the landscape, and to identify areas of overlap where additional effort can be focused in the future.

Diverse, collaborative partnerships are needed to conserve landscapes. Spatially, the areas of overlap between these three components, or their level of co-occurrence across the landscape, provide insight into holistic conservation needs and inclusive conservation opportunities that go beyond traditional land protection goals. This is further illustrated in the analysis shown on the following pages. Maximizing the benefits of conservation projects will create opportunities for new partnerships that have different but shared goals, whether they relate to land stewardship, community development, or water resource management.

Depending on how many themes overlap, there will be degrees of co-occurrence from high to low. It's important to recognize that areas with a low co-occurrence score may still be highly valuable for their ecological value, demographic diversity, or recreational access. This co-occurrence model focuses on conservation opportunities providing multiple benefits or interests. Because of this, a landscape scale approach provides one lens for identifying opportunities for land protection that are collaborative and attract diverse partnerships. Ultimately, this approach strives to make the land conservation process and protected landscape more accessible, targeted, effective, and successful for all communities with ties to the KRCL.



Figure 1: Overlapping themes of the Landscape-Scale Analysis



## Landscape Scale Analysis Components

### ECOLOGICAL PRIORITIES

*Ecologically, there are gaps in the open space network that need to be filled to maintain high biodiversity levels along the ridge and throughout the KRCL. The KRCL is also a critical ecological connection to the northern terminus of the Blue Ridge Mountains and, thus, crucial for connecting major East Coast migration corridors. Ecological priorities were identified and analyzed as part of this analysis for identifying future conservation opportunities.*

The ecological priorities for the Kittatinny Ridge Conservation Landscape (KRCL) were provided by The Nature Conservancy, an important partner organization supporting conservation efforts across the KRCL. These ecological priorities are the result of years of extensive collaborative efforts culminating in a thoughtful, targeted, and effective work product laying the groundwork for this landscape-scale analysis and, ultimately, this Conservation Plan. The KRCL, through Audubon Mid-Atlantic and The Nature Conservancy, partnered with the Shippensburg University Center for Land Use and Sustainability (CLUS) to complete a parcel level assessment to guide conservation efforts in the Kittatinny Ridge Landscape (KRCL).

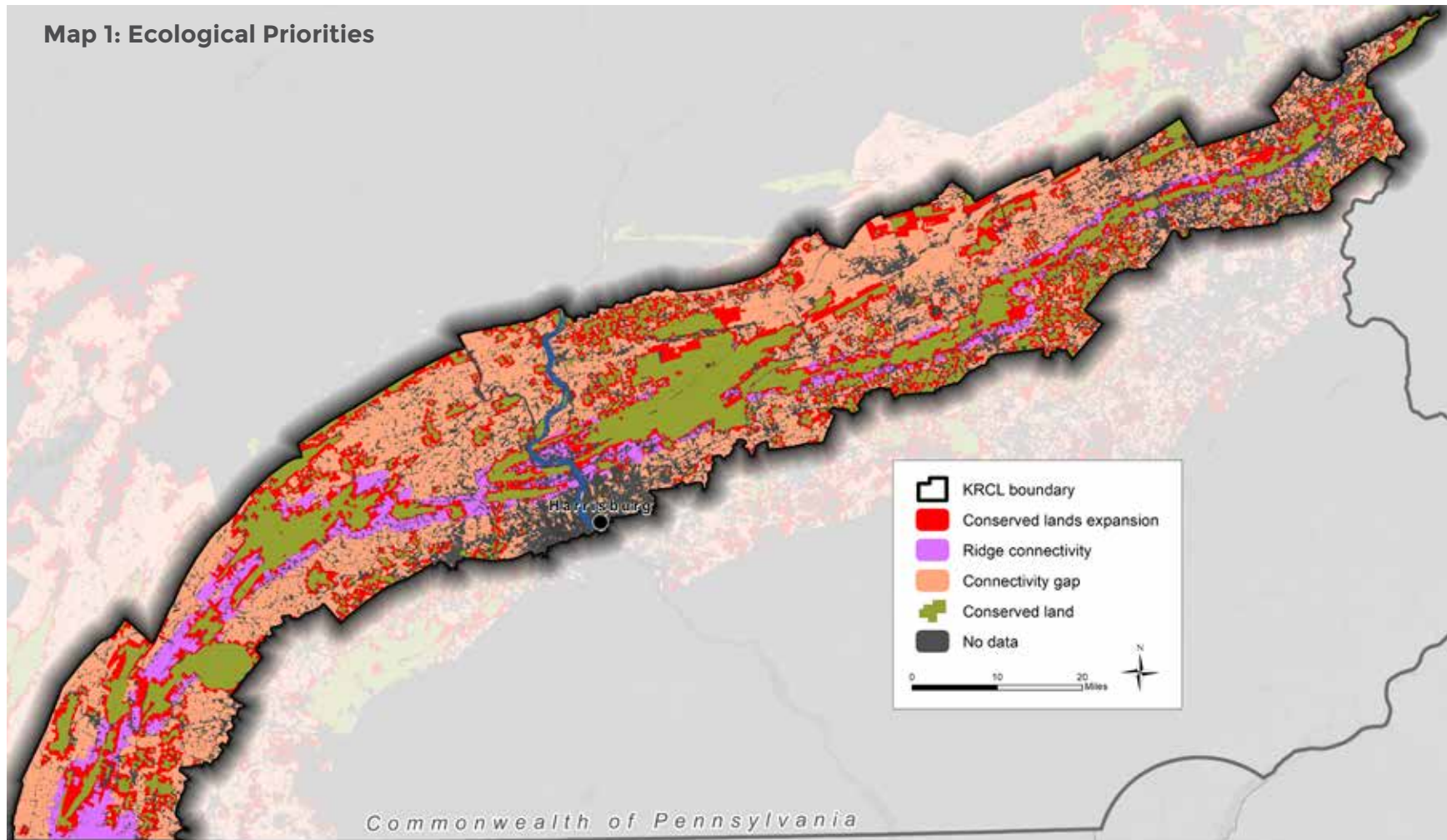
The assessment identified resilient areas in Pennsylvania's Tuscarora Mountains, Schuylkill Ridges, and the Poconos, and its geographic extent included the entirety of all the counties within the KRCL. Only parcels greater than 10 acres were included for conservation consideration, and individual county datasets from 2019 were merged. Parcel attributes related to conservation values were calculated so that each KRCL partner can assess parcels based on metrics most relevant to their priorities. These are shown in Map 1.

Ecological priorities were identified by the following criteria:

- **Conserved Lands Expansion:** Lands with more than 75% undeveloped land cover AND within 50 meters of already conserved land were identified as high priority to expand already conserved or managed lands and reduce habitat fragmentation.
- **Connectivity Gap:** Lands outside the core ridge area with more than 75% undeveloped land cover AND within 50 meters of already conserved land were identified as high priority to enhance the connectivity of conserved lands along the core ridge and down to lower elevation areas of the KRCL.

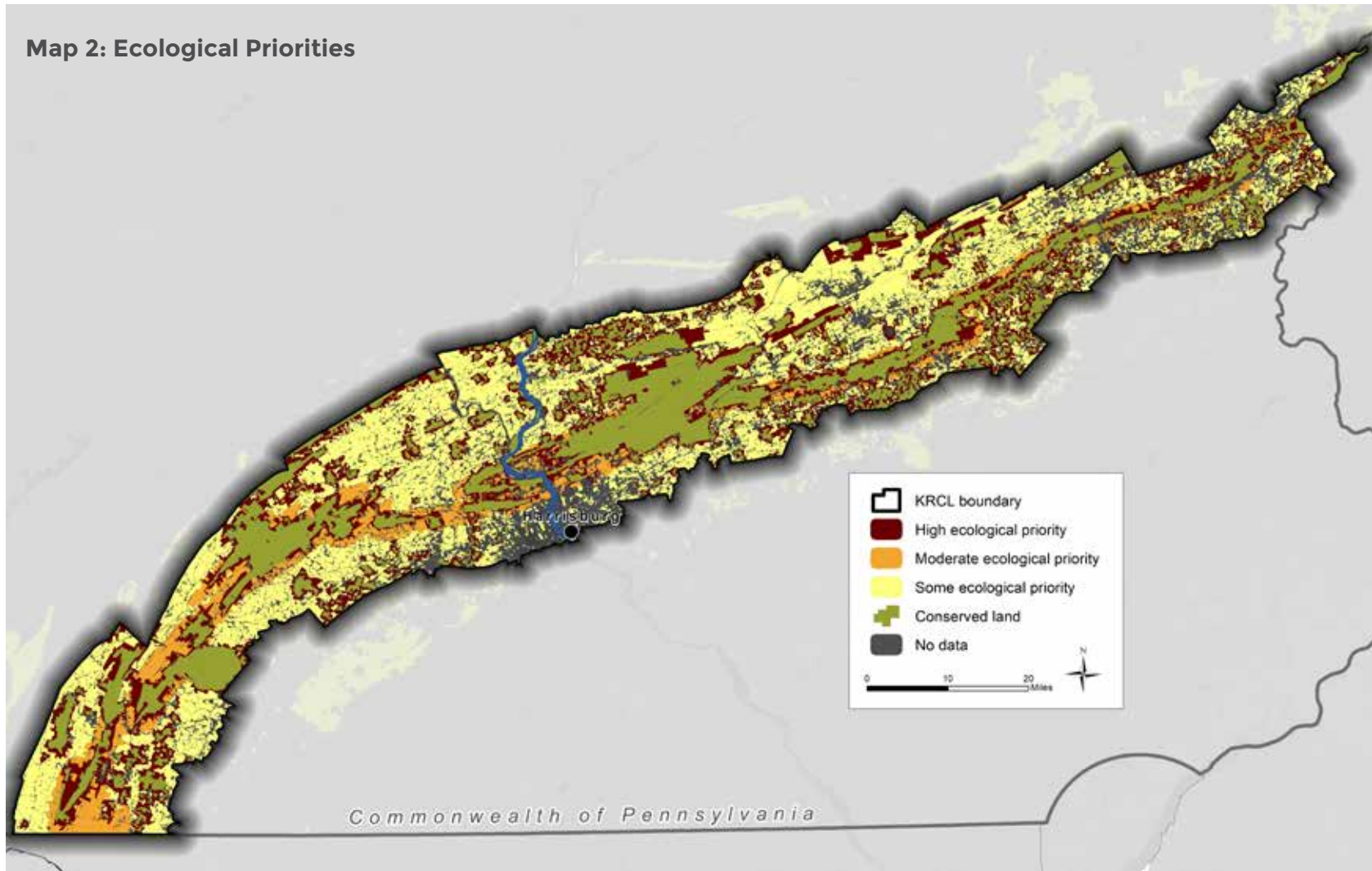
- **Ridge Connectivity:** Considering the ecological importance of the core ridge area, the connectivity gap parcels along the ridge were raised to a higher level of ecological importance than the gap parcels outside the core ridge area. Conserving these parcels would greatly enhance conserved land connectivity along the core ridge area, providing a more intact corridor for wildlife and a more resilient high elevation ecosystem.
- **Low-Priority:** Lands with less than 75% undeveloped land cover.

To identify high ecological priorities, a scoring method was developed to represent the areas of highest ecological need in the KRCL, with 1 being some, 2 being moderate, and 3 being high ecological priority. Map 2 represents shows these ecological priorities.





Map 2: Ecological Priorities



### KEY TAKEAWAYS - ECOLOGICAL PRIORITIES

- When examining the distribution of ecological priorities in the map above, the highest priority areas are scattered across the landscape with little visible pattern.
- There are high priority areas along the core ridge as well as areas in lower elevations.
- Because of this, it's clear to see that from an ecological perspective, high impact conservation efforts are needed throughout the KRCL at all elevations. For partners working along the core ridge, there are additional opportunities considering the secondary ecological priority level.

## DEMOGRAPHIC DIVERSITY

*Socially, there are populations within the region that have been underserved and underrepresented in KRCL conservation discussions and plans. Those communities have not been approached, consulted, or heard from about the potential for shared interests. This analysis explored demographic data with the goal of identifying areas within the KRCL that provide greater opportunity for discussion with local groups to find common objectives. Ultimately, this analysis can help begin the process of increasing representation within KRCL conservation efforts.*

Cultivating community support for conservation, a love for the outdoors, and a culture of stewardship and land protection is crucial to accomplish the conservation goals in this plan. The work of conserving natural places intersects with and affects human communities in ways that create benefits and burdens. Many marginalized groups, including BIPOC (Black, Indigenous, People of Color) individuals, those with disabilities, lower-income households, youth, and older adults, have often been directly or indirectly excluded from participating in defining, protecting, enjoying, and stewarding the natural systems that exist. The impact that population growth and development have on the KRCL can be dramatic, and ultimately impact sustainable development efforts, cultural assets, and the protection of natural resources. As a result, both the social and biotic communities lose when any populations are excluded from the conservation conversations. A core element of this Conservation Plan is to provide a platform for all communities to participate, share ideas, and be active members in the future of land conservation in the KRCL.

To identify areas within the KRCL that may represent communities that have been underserved and underrepresented in conservation efforts thus far, this analysis established four criteria to inform land protection opportunities to include, listen, and incorporate a diversity of voices and backgrounds.

- People of color
- Low-income
- Disability
- Age under 5 and age over 64

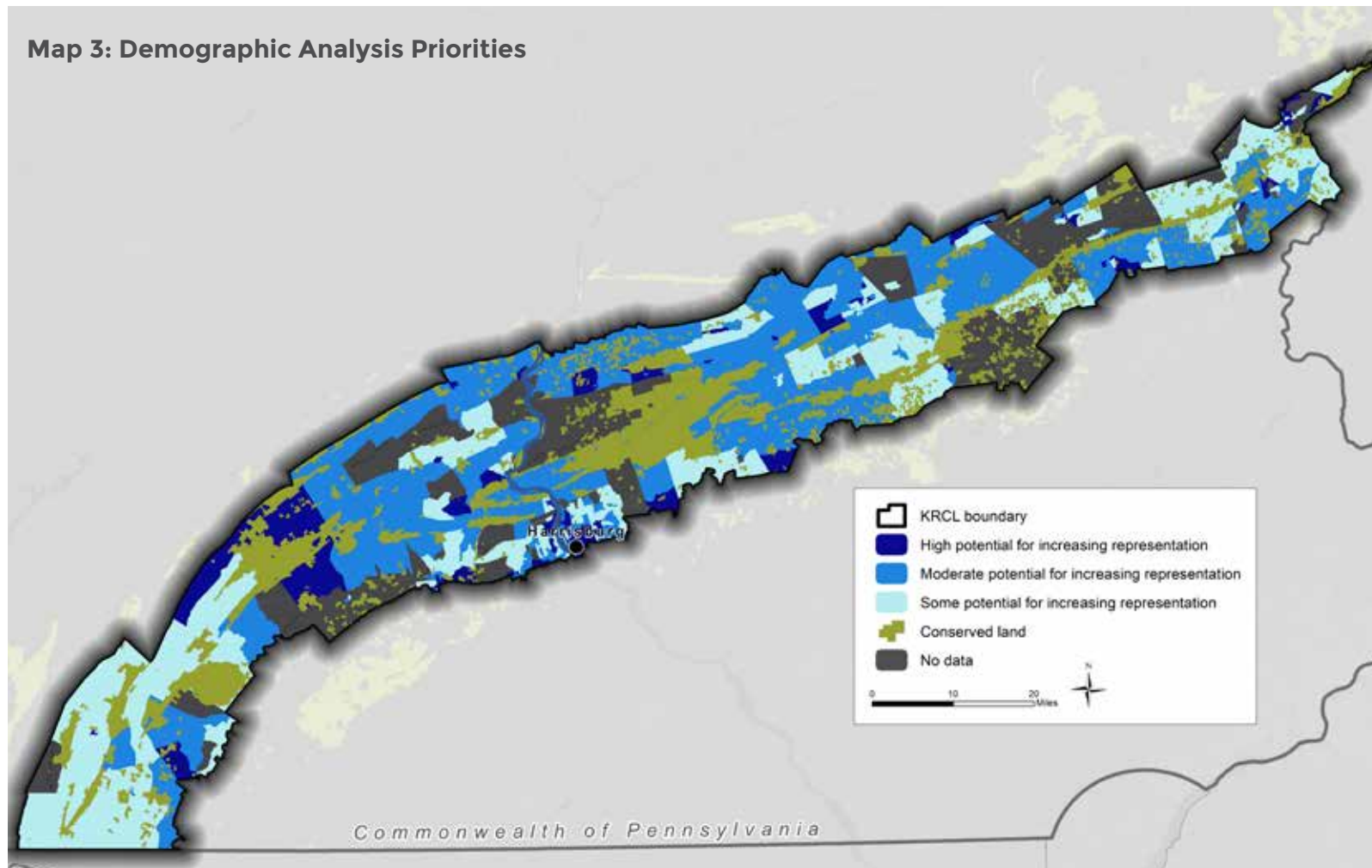
This study recognizes many more variables could be used to represent a demographic analysis. However, given the scale of this Conservation Plan, these four criteria have been considered the most appropriate at this time. Given the breadth and resolution of available data, the Census Bureau was determined to be the most appropriate agency to collect information on these criteria. To achieve the highest spatial resolution and accuracy, the census block group was determined to be the



most appropriate scale to inform this analysis. This scale provides a balance of spatial detail and data availability. Appendix A includes additional information on how these criteria were determined.

Each of these demographic criteria provide great insight into the spatial distribution of individuals and communities that have not been consulted and listened to during past conservation efforts. By integrating this information, more targeted outreach and communication can be done to approach and listen to communities that have been underserved in the past and find areas of mutual benefit that may exist for future efforts. Listening to community needs first helps change the

**Map 3: Demographic Analysis Priorities**



power dynamic that has too often perpetuated existing harm and marginalization. Furthermore, fostering relationships with new potential partners can reveal common goals resulting in a net benefit for natural and social resources.

This study set out to identify areas where these potentially undeserved and underrepresented communities overlap, also known as areas of co-occurrence. This co-occurrence has the power to recognize communities that may have been more overlooked than others; and, ultimately, work to acknowledge and rectify the long-overdue involvement by residents and organizations that should be invited to participate in the conservation planning for the KRCL. Three or more co-occurrences represent the largest opportunities for increasing representation; areas where two co-occurrences are found represent moderate opportunities for increasing representation; and where individual demographic criteria exist across the landscape represent some opportunities exist for increasing representation. Once these areas are identified, the hard work begins in approaching, listening to, and looking for shared goals with local organizations and residents. Only then can the work of increasing representation in regional conservation efforts be actualized.

#### **KEY TAKEAWAYS – DEMOGRAPHIC DIVERSITY**

- Based on the demographic analysis, there are areas within the KRCL that offer opportunities for conservation groups to approach and begin forming relationships with local groups and residents in historically underserved areas. Specifically, higher populated areas in the northeast corner and central and southern border near the Susquehanna River. Other opportunities exist in less populated areas in north central and western parts of the KRCL. These areas have potential to increase representation in the Kittatinny Ridge landscape if the work is done appropriately and effectively.
- One important takeaway is that many pockets of high opportunity for increasing representation are surrounded by or abut large areas of moderate opportunity. Which is to say, the areas of high opportunity are not anomalies; rather, they are clearly connected to surrounding areas that also display potential for increasing representation. (If the areas of high opportunity were consistently surrounded by areas of low or no opportunity that would raise concern for data integrity, but that is not the case.)
- A more in-depth analysis of these results exists within the Subregion Section that further breaks down their distribution.

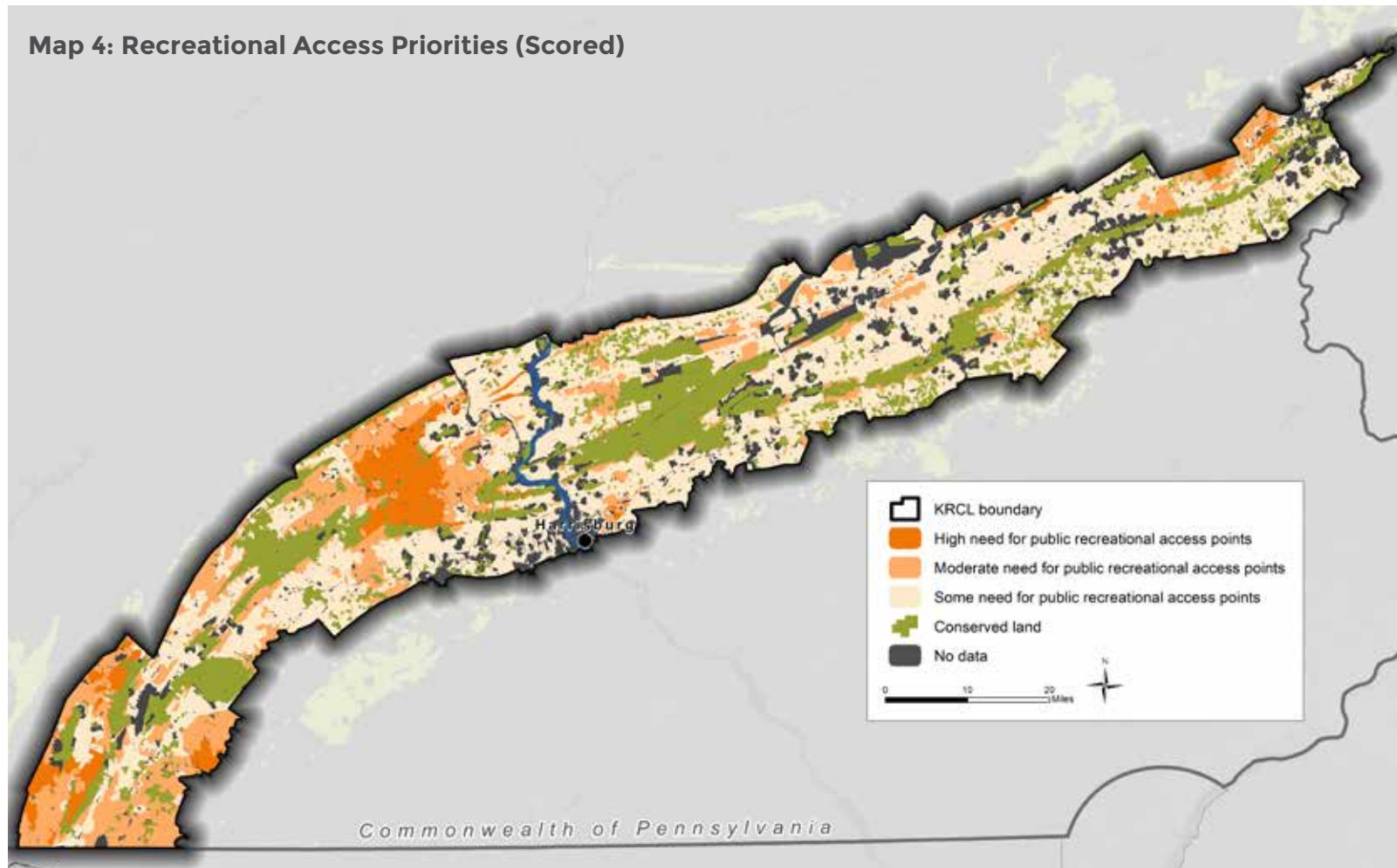


## RECREATIONAL ACCESS

*Recreationally, there are many needs related to access to outdoor opportunities across the KRCL. Anticipated needs for recreational access were analyzed as part of this analysis.*

The KRCL provides extensive recreational offerings including 160 miles of the Appalachian Trail and 60 additional miles of the Tuscarora Trail; hundreds of miles of local trails; an international destination for birdwatching, including 7 hawk watch sites; and includes a wide array of hunting, fishing and boating areas. Given the number of people living in the KRCL, a

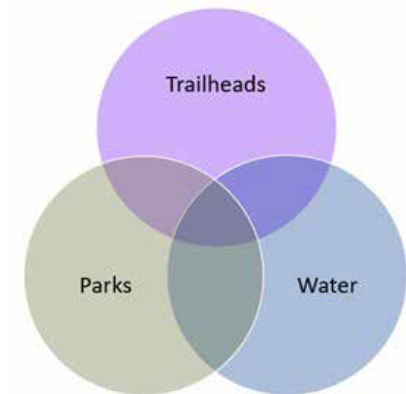
**Map 4: Recreational Access Priorities (Scored)**



vast network of active and passive recreation areas exist. This ranges from local parks and playgrounds to forms of accessible water recreation along the Susquehanna River and its tributaries.

On behalf of the Pennsylvania Department of Conservation and Natural Resources, the Trust for Public Land (TPL) produced several datasets to support Pennsylvania's 2020-2024 Statewide Comprehensive Outdoor Recreation Plan (SCORP). The following criteria were used to inform recreational access needs:

- **Trailhead Access:** Identifies areas with the greatest need for trail access opportunities. It calculates 10-minute drive “service areas” around trailheads in Pennsylvania. Regions outside these service areas are defined as low, medium, or high need.
- **Water Access:** Identifies areas with the greatest need for water access opportunities. It calculates 10-minute drive “service areas” around fishing and boating access points in Pennsylvania. Regions outside these service areas are defined as low, medium, or high need.
- **Parks and Open Space Access:** Identifies areas with the greatest need for outdoor recreation opportunities. It calculates 10-minute walk “service areas” around open-access lands in Pennsylvania. Regions outside these service areas are defined as low, medium, or high need.



Ultimately, where these three recreational themes – trailhead access, water access, park access – coincide would result in the areas of greatest potential recreational need.

Like the above Demographic Diversity section, this landscape-scale recreational needs analysis is a co-occurrence of these three recreational themes and is visually represented in Map 4. Areas represented as no data are areas where no need for public recreational access points exist based on the analysis of the DCNR and TPL data.

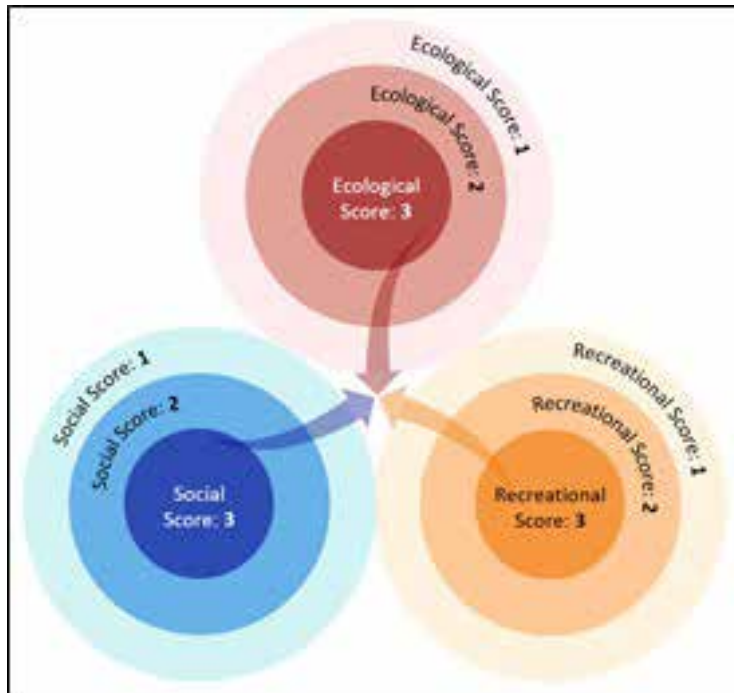
### KEY TAKEAWAYS – RECREATIONAL ACCESS

- While there are clear pockets of high recreational need, most appear in lower populated areas within the KRCL. The largest area of high recreational need is found just west of the Susquehanna River and is largely surrounded by areas of moderate recreational need. Evidently, gaps exist in the recreational infrastructure in that area and should be examined more closely. Similarly, large areas of high and moderate recreational need exist in the southwest corner of the KRCL and should be explored more to understand how recreational offerings could be improved.

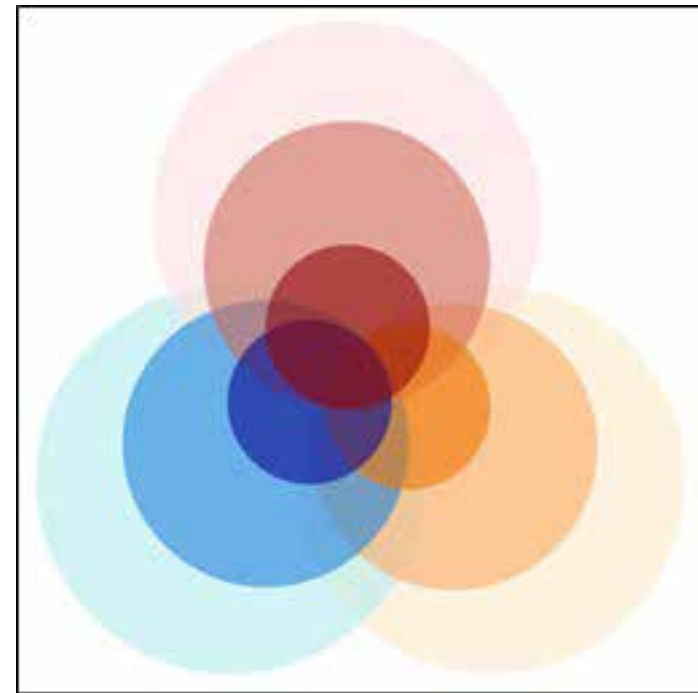


- When looking at the higher populated areas within the KRCL, in the northeast corner and south-central region near the Susquehanna River, it's clear to see the recreational needs are lower. From this, we can determine that those areas have most likely done a good job at providing access to recreation opportunities for residents.
- A more in-depth explanation and breakdown of recreational takeaways exists in the Subregion Section.

**Figure 1: Landscape Themes and Scores**



**Figure 2: Co-occurrence of Themes**



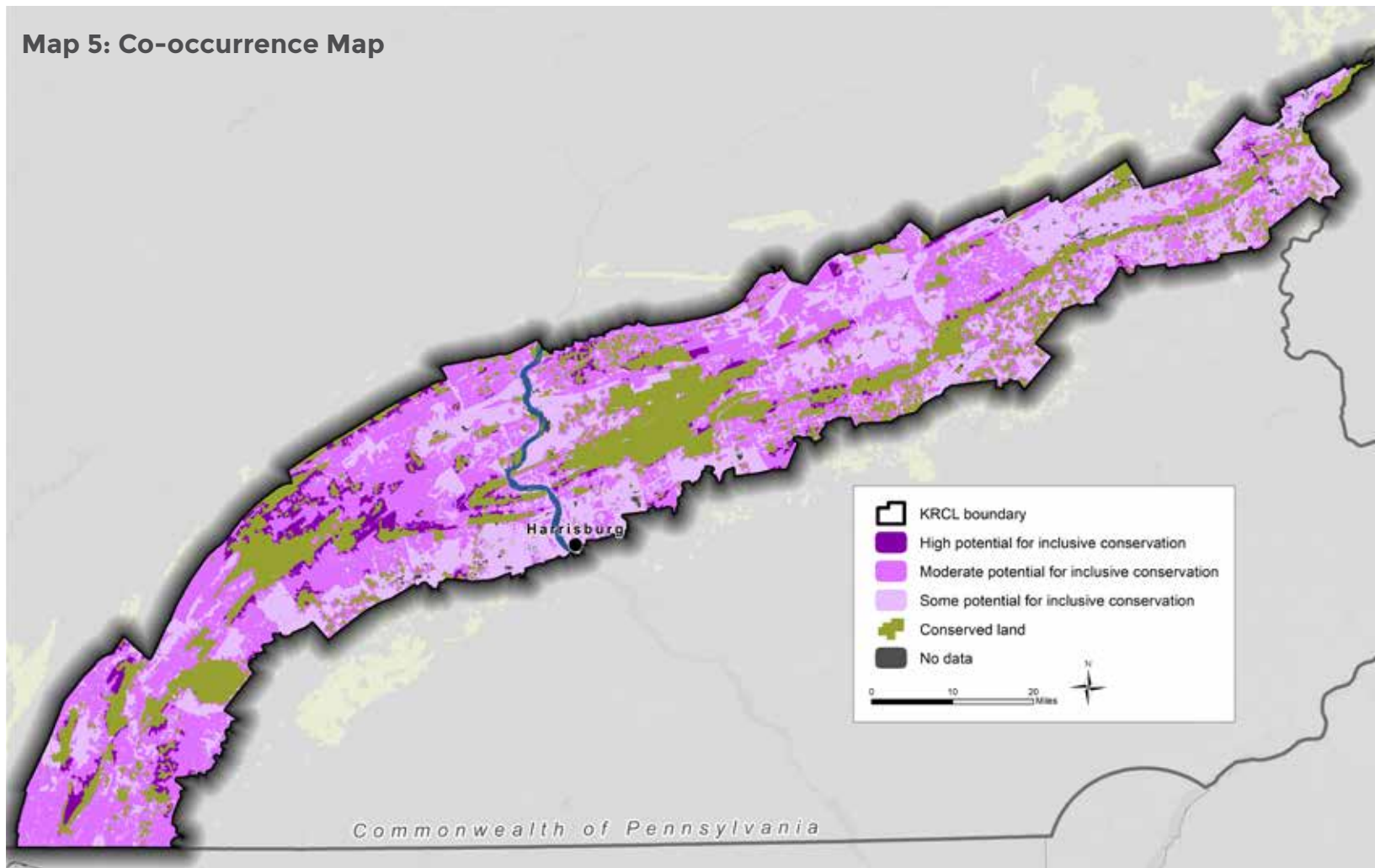
## LANDSCAPE SCALE CO-OCCURRENCE ANALYSIS

*While these three themes (ecological priorities, demographic analysis, and recreational access) tell a unique story on their own, analyzing how the three themes overlap and interact helps identify potential conservation opportunities that have multiple co-benefits.*

This process, which is shown in Figures 1 and 2, analyzed the spatial distribution and co-occurrence of the three themes using three landscape scores (3, 2, 1). Figure 2 results in a scoring mechanism seen in Figure 3. Areas with a final landscape

**Figure 3: Final Landscape Score**

score of 3 represent the highest potential for inclusive conservation across the three themes of ecological priority, demographic diversity, and recreational access; areas with a landscape score of 2 represent moderate potential for inclusive conservation; and areas with a landscape score of 1 represent some potential for inclusive conservation. These areas are shown in Map 5.





One critical takeaway from this landscape analysis at this scale is the clear connection between areas of highest potential (score 3) and areas of great potential (score 2) for inclusive conservation. In most cases, pockets of highest potential are surrounded by larger areas of great potential.

To the first point, if areas of highest potential (score 3) were surrounded by moderate potential (score 1) or areas of no score, that would raise concern over the viability of the data and results because those instances are more likely to be outliers. However, there are very few, if any, anomalies like that. To the second point, because of the relationship between areas of highest potential (score 3) and areas of great potential (score 2), these results are showing just how connected the landscape and communities are. If the analysis resulted in isolated islands of high potential (score 3) that would mean there are extremely small pockets of inputs (ecological priority, potential for increasing representation, and need for public recreational access) that happen to overlap. However, each of those inputs cover large areas across the landscape; the result is occasional co-occurrence of all three inputs (score 3), but more often there are co-occurrences of two inputs (score 2). Because of this, it is natural to have the confluence of all three inputs (score 3) surrounded by co-occurrences of two inputs (score 2). It is appropriate to see a bullseye-type effect radiating out from areas of highest potential because of the nature of this type of co-occurrence approach.

The complexity of this analysis has resulted in clearly identified areas of high potential for inclusive conservation, but those areas should be understood and further explored with how they connect to the surrounding and abutting lands and communities.

A more detailed discussion of the key findings of this landscape analysis map can be found in the Subregions Section.



## Overview of the Subregion Analysis

The Kittatinny Ridge Conservation Landscape (KRCL) is over 2.1 million acres in size and accounts for more than 7% of the land area in the Commonwealth of Pennsylvania. Considering the size of the KRCL, the landscape, communities, respective cultures, and challenges are wide-ranging and locally distinct from east to west, north to south, high elevation to low. While these localized issues present significant challenges, an opportunity exists in the idea of subregions. Considering the diverse and nuanced interests impacting different areas of the KRCL, the conservation planning approach should be equally dynamic and provide strategic solutions. For this reason, a subregion analysis was completed to better understand the more localized impacts, needs, resources and opportunities of the KRCL. Five subregions were created using the two most distinguishable physical features in the service area – the Kittatinny Ridge and the Susquehanna River. The Kittatinny Core Ridge is one subregion, with the four others being north/south of the ridge and east/west of the river. There are many reasons subregions have been identified in the Conservation Plan but, most importantly, they offer the following benefits:

- The KRCL's scale is more approachable when understanding the diverse challenges and opportunities that exist within the varied geographic areas of the landscape;
- A subregion model makes the KRCL findings from the landscape-scale analysis more attainable and actionable;
- Subregions can help make the challenges and opportunities related to holistic conservation initiatives more understandable at the local level;
- It also makes the KRCL's scale more manageable for participating organizations/agencies, and more approachable for those looking to join;
- Identifies more specific needs within parts of the KRCL that could aid partners in communicating and addressing local issues.

At this time, the focus of subregions is on understanding the current conditions of the KRCL, what work needs to be done,



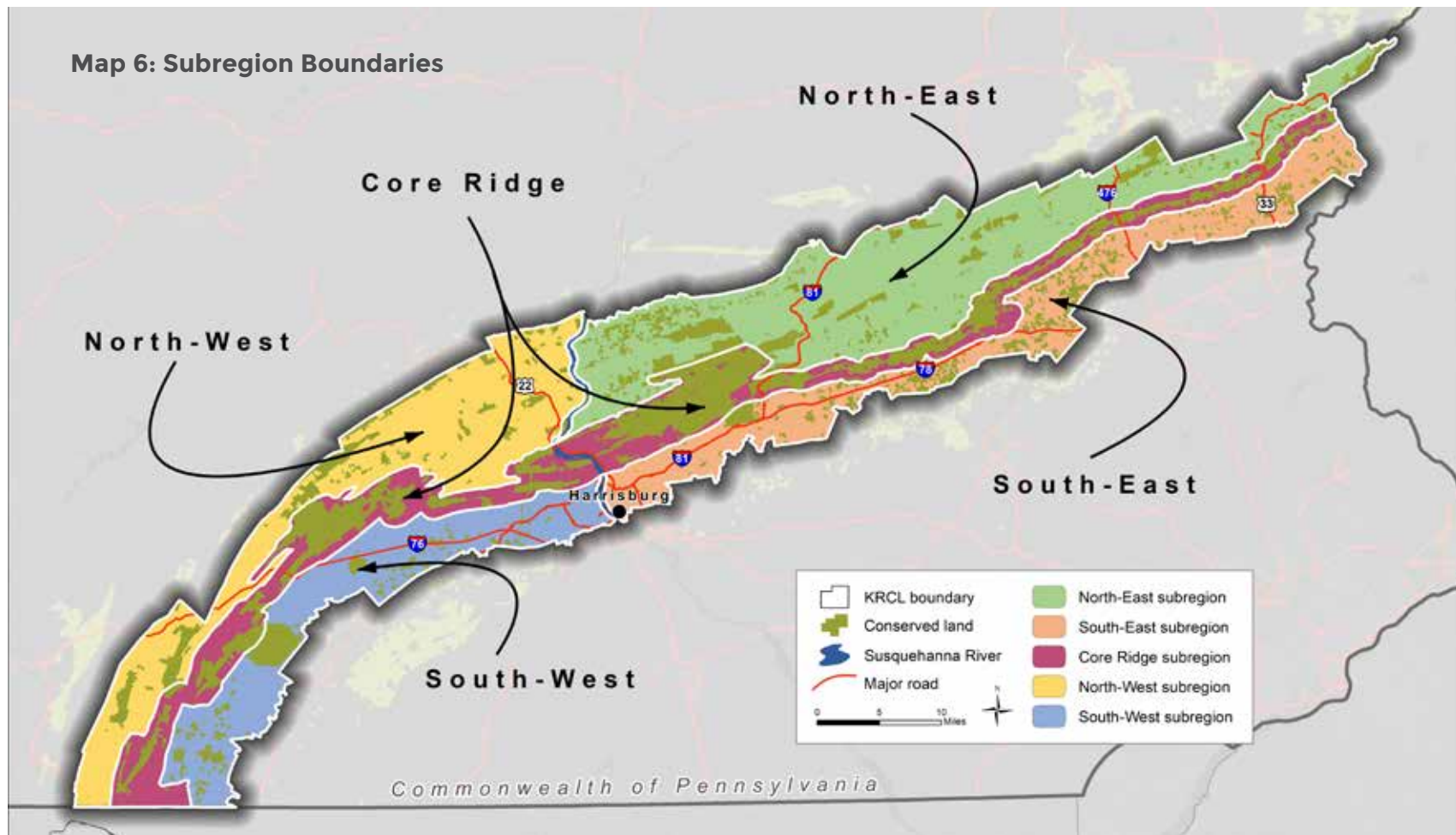
and initial focuses across the three landscape themes (ecological, social, recreational). However, other benefits exist for this type of approach that speaks to an “identity” within each subregion that partners can rally behind. Although the following benefits are not appropriate at this time, the KRCL should consider if these are appropriate for inclusion in future efforts. These benefits include:

- Key/lead agencies can be identified within each subregion acting as local leads or ambassadors to encourage more localized collaboration on mutually beneficial land-scale conservation goals;
- Identifying and articulating place-specific identities can be applied to the unique areas of the KRCL which increases the possibility of buy-in and empowerment;
- Subregions could take advantage of different funding sources by highlighting subregion-specific criteria or needs;
- Funding opportunities could be more equally distributed and focused on the needs or solutions found in the subregion;
- This approach will enable better communication and collaboration between local governments and the private/public land managers within them;
- Together these will help create localized buy-in of the KRCL among organizations/agencies because they see themselves more reflected in their localized subregion, and yet are part of a broader landscape scale initiative.

## **SUBREGION BOUNDARIES**

Though several subregion boundary options were explored (based on cultural features, municipal boundaries, and ecological communities), a hybrid approach was taken for the purpose of this plan. The final boundaries of this analysis include the two largest cultural and natural features that exist in the KRCL – the Susquehanna River, which serves as the east-west boundary line, and the Kittatinny core ridge area that acts as the north-south boundary. Map 6 on the following page shows the five subregions (which include the Core Ridge, North West, North East, South East, and South West) that were selected for further analysis of the distribution of holistic conservation needs.





The entire Kittatinny Ridge Conservation Landscape is 2,158,010 acres and is the third largest conservation landscape by area in the state. The five distinct subregions vary in size ranging between 289,848 and 601,332 acres.

Figure 4 shows the breakdown of subregion size throughout the KRCL. The North-East subregion is the largest accounting for 28% of the KRCL, with the Core Ridge second largest at 24%. The remaining subregions are closer in size and account for 14-19% of the remaining KRCL each.



## KRCL CONSERVED LANDS BY SUBREGION

Figure 5 shows the distribution of conserved lands by subregion. The Core Ridge contains the majority of conserved lands within the KRCL. While it makes up  $\frac{1}{4}$  of the KRCL area, it contains nearly half (46%) of all conserved lands. Conversely, despite the North-East being the largest subregion in the KRCL, it contains one of the smallest percentages of conserved lands at 14%.

## Landscape Theme Breakdown by Subregion

The three main themes of the landscape-scale analysis outlined in the Landscape-Scale Analysis Section (page 28) include (1) ecological priority, (2) opportunity for increased representation, and (3) need for recreational access. By examining the distribution of these themes across the landscape, partners can better understand the current conditions within the KRCL and work to address the diverse challenges and opportunities that exist. Ultimately, at this step in the larger KRCL efforts, this theme breakdown makes the landscape-scale analysis more approachable and begins to identify more localized opportunities that exist in certain areas.

## ECOLOGICAL PRIORITIES BY SUBREGION

For the subregion breakdown of ecological priorities, this analysis excluded already conserved lands because those are no longer available for ecological consideration. As a result, the ecological priorities outlined in the Landscape-Scale Analysis Section account for 77% of non-conserved lands within the KRCL totaling more than 1.28 million acres. Map 7 shows the distribution of ecological priorities within each subregion. Table 1 shows the breakdown of all ecological priorities by subregion (excluding conserved lands). Table 2 drills down further into the ecological landscape scores.

Figure 4: KRCL Area by Subregion

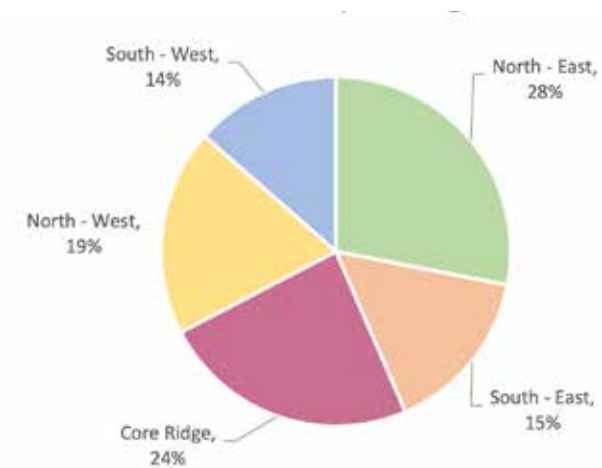
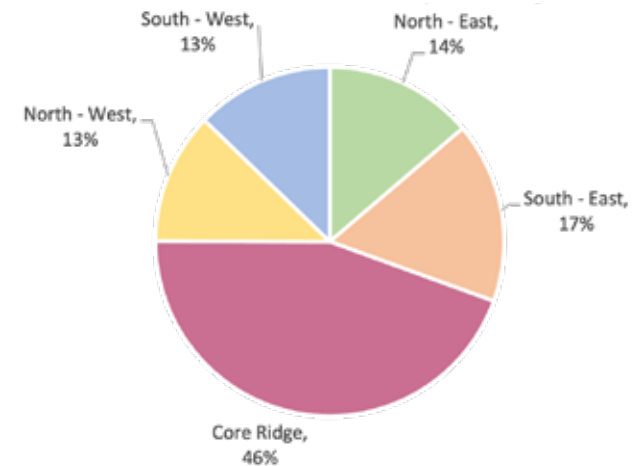
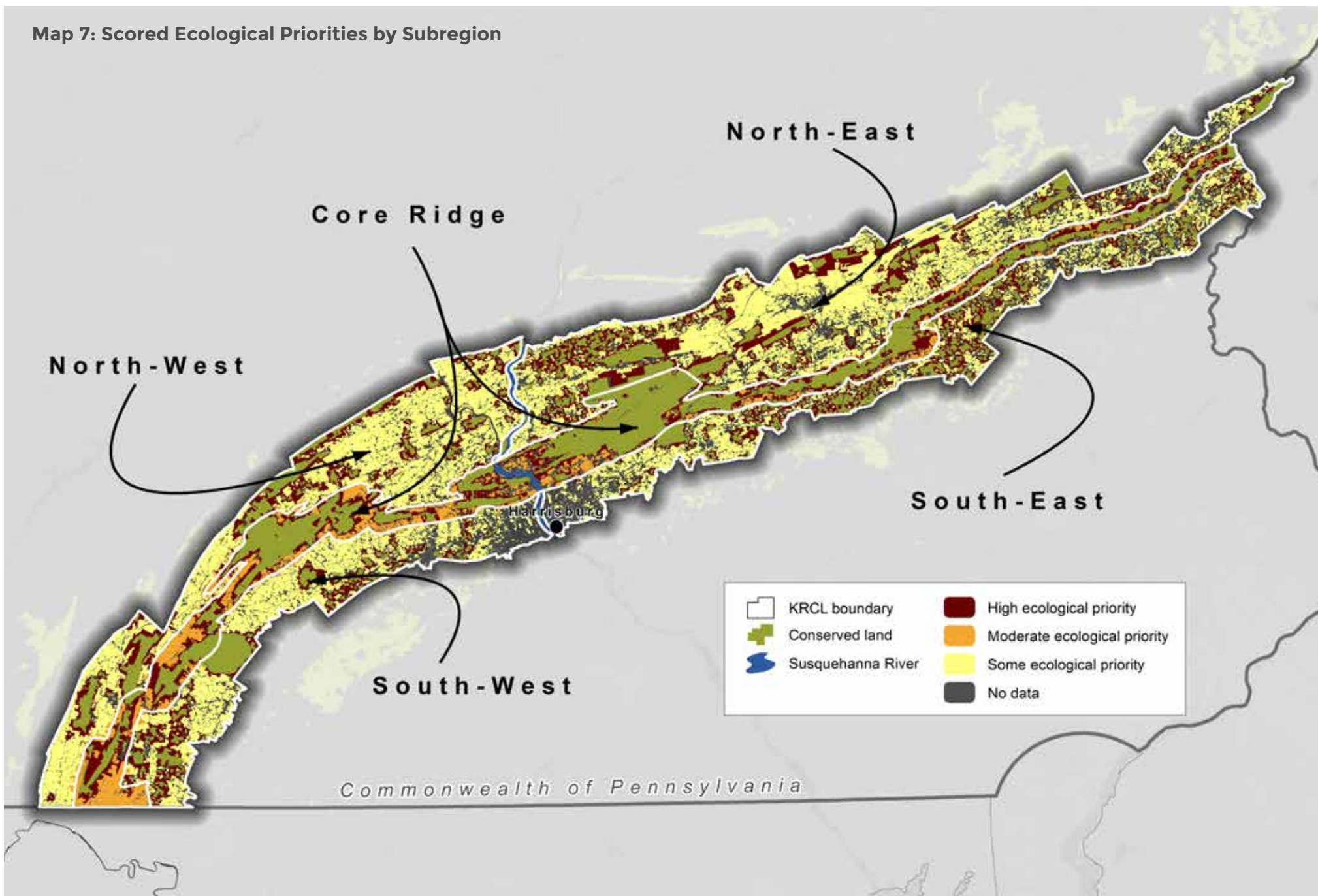


Figure 5: KRCL Conserved Land by Subregion



Map 7: Scored Ecological Priorities by Subregion





KEY TAKEAWAYS - ECOLOGICAL PRIORITIES

- The greatest amount of highest ecological priority land exists within the Core Ridge subregion. Within the Core Ridge, 42% of the ecological priority acres received the highest ecological score. In that context, the Core Ridge has twice as much of the highest ecological priority areas when compared to other subregions. Similarly, the Core Ridge contains nearly all lands that have a moderate ecological priority. Forty-two percent of the Core Ridge received a moderate ecological score, which is more than twice the amount of the South-East subregion (18%). For partners with an ecological mission that have the capacity to work within the ridge, efforts should be focused there. In total, the Core Ridge contains a large percentage of moderate and high ecological priorities at 84% of non-conserved lands.

Table 1: Ecological Priority Breakdown by Subregion (Excluding conserved lands)		
Sub Region	Acres of Ecological Priorities	Percent of Subregion
North - East	391,800	76%
South - East	170,343	62%
Core Ridge	232,047	84%
North - West	309,877	87%
South - West	181,751	72%
Total	1,285,818	77% of the KRCL

Table 2: Ecological Priority Breakdown by Subregion (Excluding conserved lands)										
Ecological Landscape Score	North-East		South-East		Core Ridge		North-West		South-West	
	Total Acres	Subregion Percent	Total Acres	Subregion Percent	Total Acres	Subregion Percent	Total Acres	Subregion Percent	Total Acres	Subregion Percent
High	107,045	21%	57,058	21%	116,374	42%	62,638	18%	41,374	16%
Moderate	4,002	1%	50,235	18%	115,673	42%	10,890	3%	6,955	3%
Some	280,753	54%	108,250	40%	-	0%	236,349	66%	133,422	53%

- Other subregions still have significant amounts of the highest ecologically prioritized land. For that reason, there are lots of opportunities for partners that have a strong ecological mission whose focus is not along the Core Ridge. The North-West subregion has the highest percentage of ecological priorities accounting for 87% of the non-conserved area in the subregion.
- For partners with an interest in some ecological benefits, subregions north and south of the Core Ridge contain a lot of lower ecologically prioritized lands offering opportunities to find common goals with other organizations to drive regional conservation forward. All subregions except the Core Ridge have significant percentages of the lowest ecological scores, which should not be diminished; although they are the lowest ecological priority score, they still present significant opportunities for ecological conservation efforts.

POTENTIAL FOR INCREASING REPRESENTATION BY SUBREGION

To generate a breakdown of the demographic analysis by subregion, the analysis excluded already conserved lands because those are no longer available for conservation consideration. Given the distribution of the demographic criteria, the potential for increasing representation outlined in the Landscape-Scale Analysis Section account for 79% of non-conserved lands within the KRCL totaling more than 1.3 million acres. Map 8 shows the distribution of potential for increasing representation within each subregion. Table 3 shows the breakdown of the potential for increasing representation by subregion.

Table 3 lists the Core Ridge with the highest overall percentage of potential for increasing representation at 87% of the subregion. However, there is good reason to question this. There are 124 Census block groups that are at least partly within that subregion, but there are only 9 Census block groups that are entirely within the Core Ridge subregion. What this shows is the majority of the 124 block groups that intersect the Core Ridge are also partly within other subregions. Understanding that (1) block groups generally contain between 600-3,000 people and (2) anecdotally there is a limited population residing along the Core Ridge, it is reasonable to assume that most of the populations found within many of the block groups not entirely within the Core Ridge reside in the other subregions. For this reason, findings for potential increase of representation within the Core Ridge subregion should be viewed cautiously.

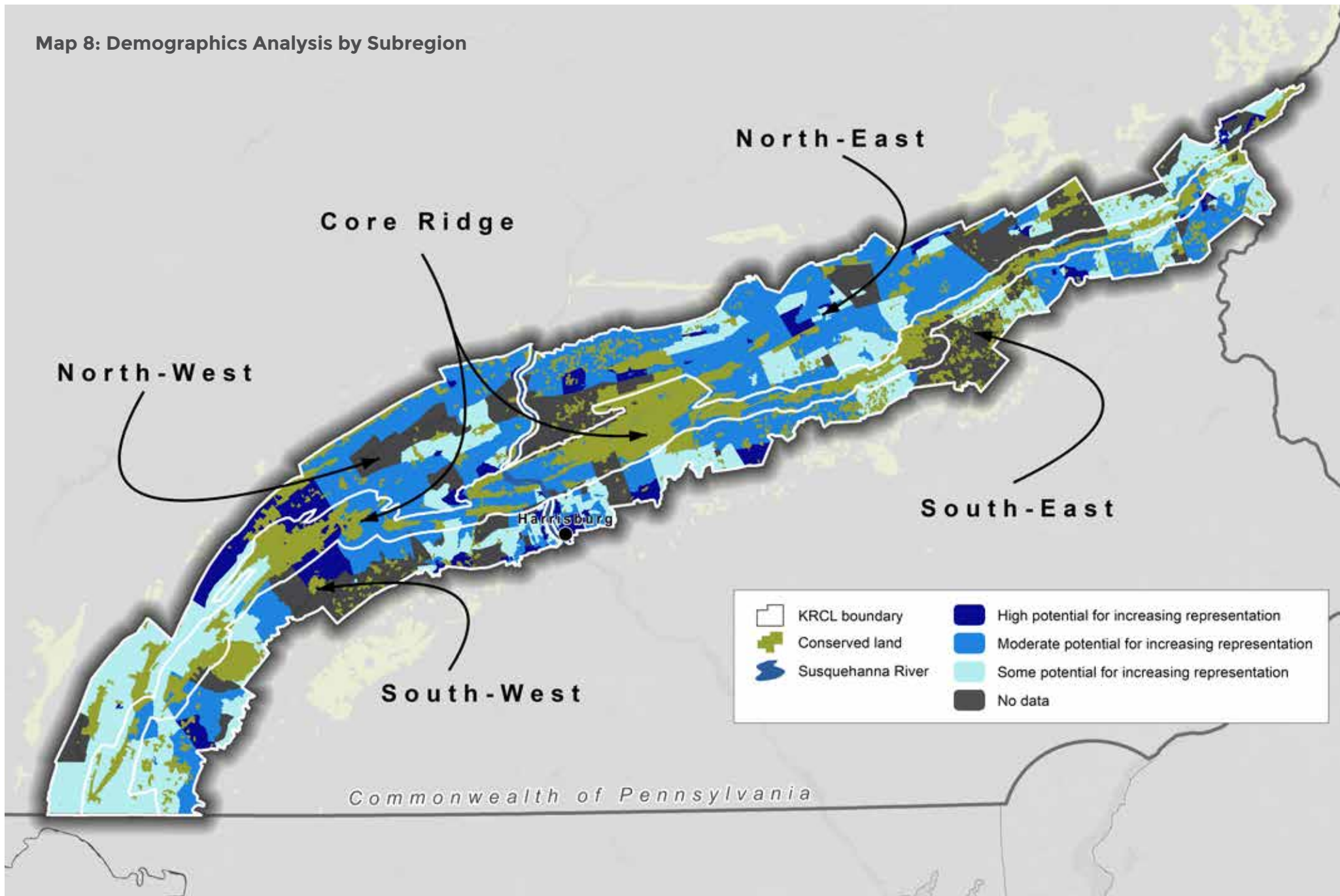
KEY TAKEAWAYS - POTENTIAL FOR INCREASING REPRESENTATION

- The greatest amount of highest potential for increasing representation exists within the two Western subregions. The North-West has the highest percentage of potential for increasing representation accounting for 82% of the subregion. For conservation- specific groups, there are wide-reaching opportunities to welcome and invite others into the conservation process in these areas that have historically been overlooked. Similarly, for partners with a social-specific

Table 4: Demographics Landscape Scores by Subregion (Excluding conserved lands)										
Demographic Landscape Score	North-East		South-East		Core Ridge		North-West		South-West	
	Total Acres	Subregion Percent	Total Acres	Subregion Percent	Total Acres	Subregion Percent	Total Acres	Subregion Percent	Total Acres	Subregion Percent
High	22,740	4%	22,472	8%	13,416	5%	40,325	11%	26,765	11%
Moderate	249,532	48%	108,418	40%	121,214	44%	127,462	36%	80,454	32%
Some	116,295	23%	87,123	32%	105,769	38%	125,592	35%	73,727	29%



Map 8: Demographics Analysis by Subregion





mission, there are opportunities to partner with land protection groups that would satisfy a variety of common goals.

- While the eastern and western subregions contain a lot of moderate potential for increasing representation, there is more opportunity in the east. However, the entire KRCL offers opportunity for partners that have a strong social component.
- Subregions both east and west of the Susquehanna River contain high amounts of areas with some opportunity for increasing representation. This creates opportunities to approach and listen for shared goals with other organizations and collaborate to drive a more inclusive approach to conservation.

\*The figures in Table 3 represent land area within each subregion where certain communities/populations exist that have been overlooked and marginalized from regional conservation efforts. With that in mind, the takeaway from this table is to understand that the higher percentages display a greater potential for increasing representation from those communities/populations. Disregarding the Core Ridge because of data issues that have been discussed, the North-West and South-East subregions have the greatest potential for increasing representation.

**Table 3: Potential Increasing Representation  
Breakdown by Subregion  
(Excluding conserved lands) \*See note below**

Sub Region	Acres of Potential for Increasing Representation	Percent of Subregion
North - East	388,567	75%
South - East	218,013	80%
Core Ridge	240,399	87%
North - West	293,379	82%
South - West	180,946	72%
<b>Total</b>	<b>1,321,304</b>	<b>79% of the KRCL</b>



NEED FOR RECREATIONAL ACCESS BY SUBREGION

For the subregion breakdown of need for recreational access, this analysis excluded already conserved lands because those are no longer available for conservation consideration. While recreation may still be developed on existing conserved lands, the analysis focused on areas of potential for new conserved lands. The need for recreation access outlined in the Landscape-Scale Analysis Section accounts for 85% of the KRCL totaling more than 1.4 million acres. Map 9 shows the distribution of recreational need within each subregion. Table 5 shows the breakdown of needs for recreation access. It should be noted that while the Core Ridge appears to have a lower amount of recreational access need that is likely because that subregion lacks two critical factors: (1) limited water resources to support water recreation, and (2) limited resident populations to support local parks. For this reason, figures from the Core Ridge should be viewed cautiously.

Table 5: Need for Recreational Access Breakdown by Subregion (Excluding conserved lands)		
Sub Region	Acres of Need for Recreational Access	Percent of Subregion
North - East	413,700	80%
South - East	229,975	84%
Core Ridge	223,794	81%
North - West	332,590	93%
South - West	219,135	87%
Total	1,419,194	85% of the KRCL

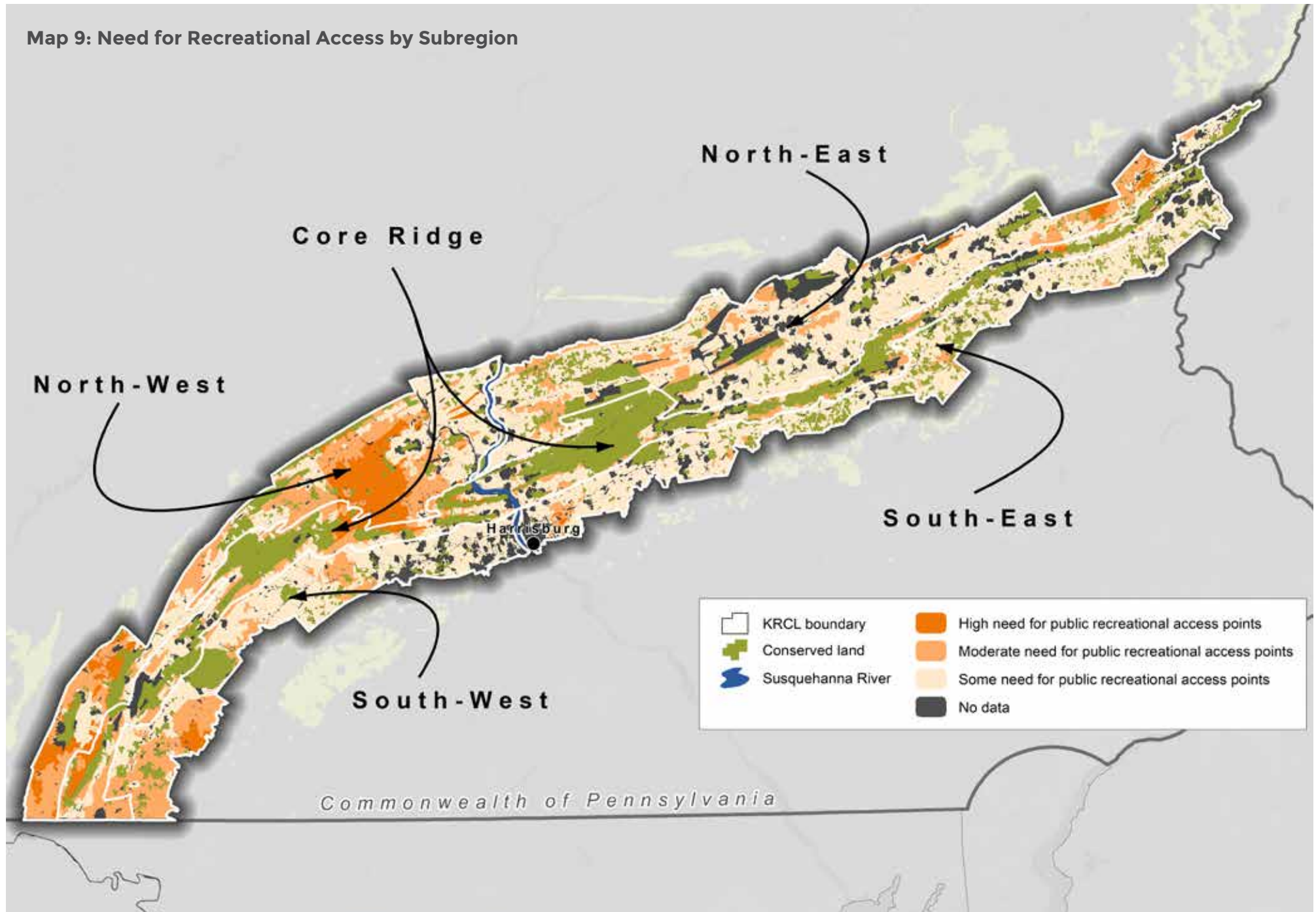
KEY TAKEAWAYS - NEED FOR RECREATIONAL ACCESS

- Across the different metrics for recreation access, all subregions have large amounts of recreational need. The Western subregions have very high percentages averaging 90% of each subregion compared to an average 82% of the Eastern

Table 6: Recreational Landscape Scores by Subregion (Excluding conserved lands)										
Recreational Landscape Score	North-East		South-East		Core Ridge		North-West		South-West	
	Total Acres	Subregion Percent	Total Acres	Subregion Percent	Total Acres	Subregion Percent	Total Acres	Subregion Percent	Total Acres	Sub-region Percent
High	6,433	1%	858	0.3%	19,679	7%	79,224	22%	5,980	2%
Moderate	81,822	16%	12,775	5%	80,328	29%	126,495	35%	75,565	30%
Some	325,445	63%	216,342	79%	123,787	45%	126,871	35%	137,590	55%



Map 9: Need for Recreational Access by Subregion



subregions. The greatest amount of highest need for recreational access exists within the North-West subregion. For conservation partners with a high recreational priority, this area has the most favorable characteristics to make significant recreational access improvements. For recreation-specific groups, there are wide-ranging opportunities to increase access to many forms of recreation across the landscape.

- The North-West subregion has the most potential for moderate improvement to recreational access. Similarly, the South-West subregion contains a lot of potential for moderate recreational access improvement. For partners with a strong recreational component, these Western subregions offer the most potential for moderate improvement to recreational access.
- For partners that have less of a recreational focus, subregions east of the Susquehanna River contain significant amounts of some opportunity for recreational access improvement. This offers partners the chance to find shared goals with other organizations to drive a more accessible variety of conserved lands throughout the KRCL.

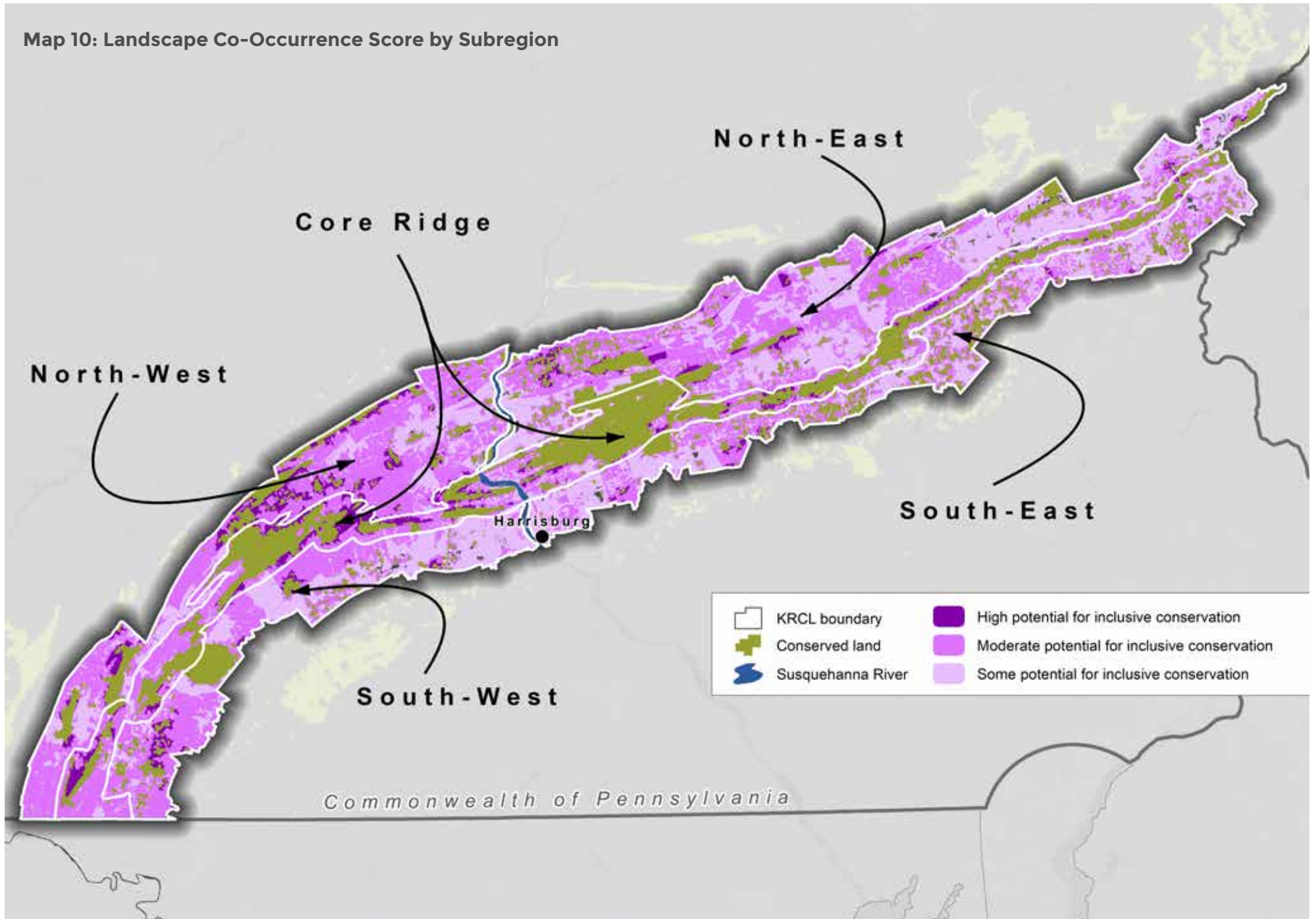
### Landscape Theme Co-Occurrence Breakdown by Subregion

A landscape-scale co-occurrence was also completed and presented by subregion, this analysis excluded already conserved lands because those are no longer available for conservation consideration. As a result, the co-occurrence outlined in the Landscape-Scale Analysis Section account for 99% of non-conserved lands within the KRCL totaling more than 1.6 million acres. Map 10 shows the co-occurrence distribution within each subregion. Considering this map is a co-occurrence of the three themes included in the landscape-scale analysis, this culmination represents potential areas for inclusive conservation. Table 8 shows the potential for inclusive conservation breakdown by subregion. According to Table 8, all subregions contain some potential for inclusive conservation.

Table 8: Co-Occurrence Landscape Scores by Subregion (Excluding conserved lands)										
Co-Occurrence Landscape Score	North-East		South-East		Core Ridge		North-West		South-West	
	Total Acres	Subregion Percent	Total Acres	Subregion Percent	Total Acres	Subregion Percent	Total Acres	Subregion Percent	Total Acres	Sub-region Percent
High	13,265	3%	3,473	1%	37,393	14%	31,183	9%	8,802	3%
Moderate	233,881	45%	107,132	39%	169,644	61%	225,844	63%	123,554	49%
Some	262,357	51%	159,386	58%	67,007	24%	99,319	28%	116,661	46%



Map 10: Landscape Co-Occurrence Score by Subregion



KEY TAKEAWAYS - CO-OCCURRENCE BREAKDOWN

- The Core Ridge contains the highest percentage of potential for inclusive conservation. However, as has been discussed in the above sections – potential for increased representation and need for recreational access – any culminating scores for this subregion should be viewed cautiously. Considering the potential for erroneous findings within the Core Ridge, the North-West subregion has the greatest amount of highest potential for inclusive conservation. For organizations working as part of the KRCL, there are significant opportunities to work on projects that have wide-ranging benefits regardless of the specific organizational mission.
- The North-West subregion has the greatest amount of moderate potential for inclusive conservation (at 63% – 225,844 acres – of the subregion). With that in mind, nearly three-quarters of the North-West subregion has either a high or moderate amount of potential. The remaining three subregions (excluding the Core Ridge) also contain a lot of moderate potential, albeit below amounts in the North-West. For partners with a strong inclusive element to their work, the North-West subregion offers the most amount of moderate potential, while the remaining subregions also provide a lot of additional opportunity.
- Three subregions stand out as having substantial amounts of some potential for inclusive conservation – North-East, South-East, and South-West. These lesser amounts of potential still offer partners the chance to find shared goals with other organizations to drive a more inclusive suite of conserved lands throughout the KRCL.

ADDITIONAL OVERLAYS

ECOLOGICAL CONNECTIVITY

From an ecological perspective, it’s critical that the conserved lands within the KRCL operate as a network and wildlife corridor benefiting all terrestrial, avian, and aquatic fauna and flora. With that line of thinking, research states that a conserved property more than 1 mile from another conserved property is considered isolated and may not be functioning as part of the ecological network. This Conservation Plan considered several ways to identify properties that could act as those critical ecological connections. While the Conservation Plan chose to explore using Active River Areas (ARA’s) as the method for connecting conserved properties, it was decided there should be further internal KRCL discussion to determine the best approach for future efforts.

Table 9: Active River Area Breakdown by Subregion		
Sub Region	Acres of Active River Area	Percent of Subregion
North - East	109,202	18%
South - East	63,569	19%
Core Ridge	73,005	14%
North - West	86,904	21%
South - West	64,072	22%
Total	396,752	19%

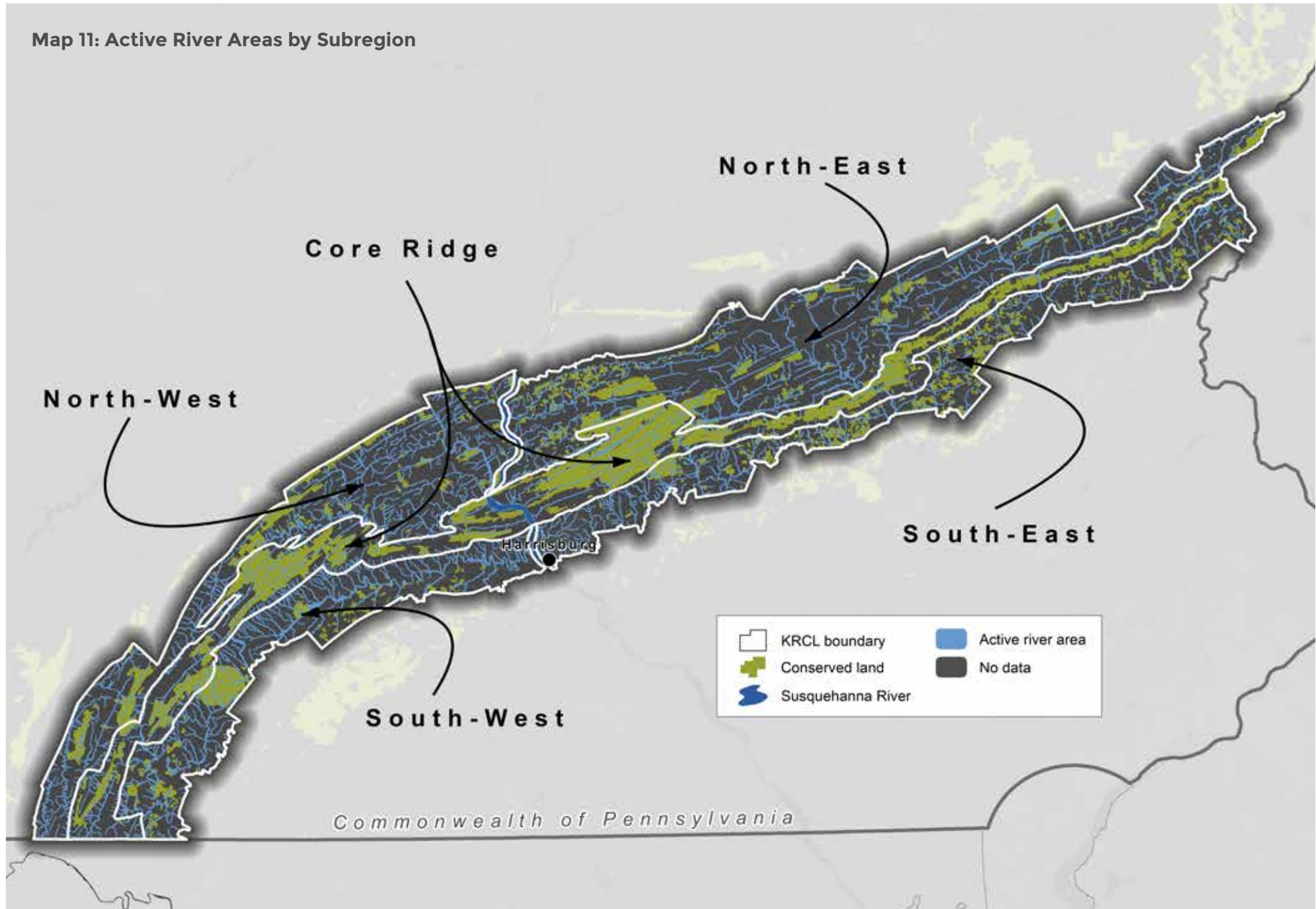
ARA's act as riparian corridors and are one ecological method for connecting conserved properties that would otherwise remain isolated. This framework is described further in Appendix B. With that in mind, the subregion breakdown was conducted to get a better understanding of the distribution of stream/river networks and associated ecological corridors within the KRCL. Table 9 shows the breakdown of ARA's within each subregion. Map 11 shows the distribution throughout the KRCL and subregions.

#### **TAKEAWAYS:**

- Certain properties, although conserved, may not be providing the same level of ecological benefit if they remain isolated from other conserved areas. Increasing connectivity and developing a broad ecological network of properties is challenging and can be approached through many avenues. Connectivity is critical for ecological health.
- It is not surprising that the Core Ridge has the smallest percentage of active river area considering the higher elevations are likely where many headwaters begin. For that reason, there may be less potential for connecting isolated conserved lands within the Core Ridge subregion itself. However, those stream corridors likely provide significant opportunity to connect conserved lands from the ridgeline to other conserved areas at lower elevations.
- The remaining subregions have similar amounts of active river area and, for that reason, this could be a valid and effective approach for connecting isolated conserved properties throughout the KRCL.
- Further research should be conducted to better understand how to best connect existing conserved lands that would otherwise be isolated from the broader ecological network. Once the connectivity method is identified, it could be an added priority for conservation efforts.



Map 11: Active River Areas by Subregion



## AGRICULTURAL SOILS

The threat posed to agricultural soils from warehouse development specifically was reiterated throughout the in-person meetings that took place across the KRCL in May 2021. The flat terrain and soft subsurface of agricultural soils make them prime targets for large developments including warehouses. Additionally, the transportation networks that exist within the KRCL including Interstates 76, 78 and 81 and other major state roads provide particularly easy access for cargo. The large presence of agricultural soils and busy transportation network has set the stage for the dramatic increase in warehouse development within the KRCL.

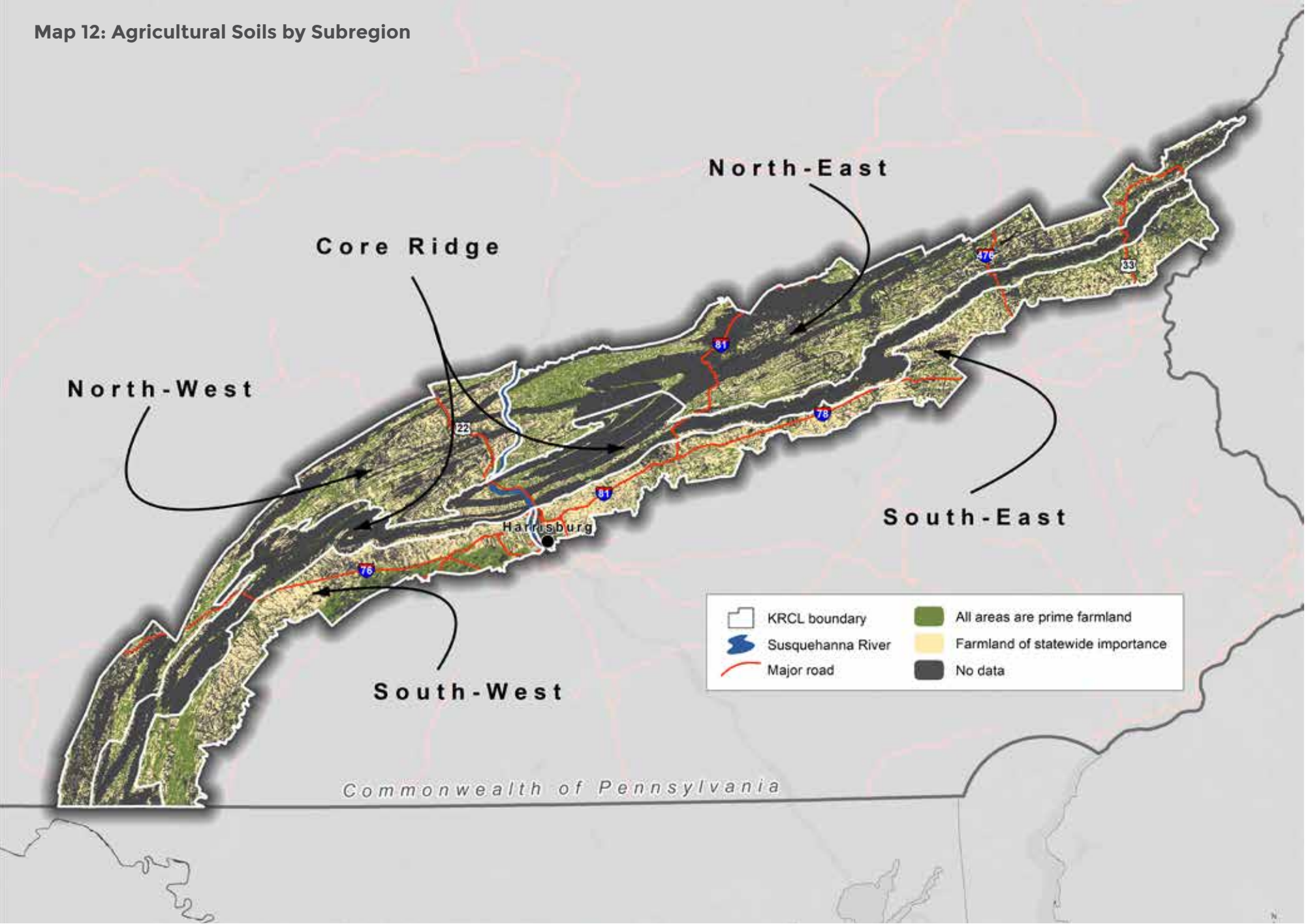
Table 10 shows the breakdown of important farmland soils by subregion. Appendix B includes more information about the classification of farmland soils.

Table 10: Agricultural Soils by Subregion						
Sub Region	All areas are prime farmland	Percent of Subregion	Farmland of statewide importance	Percent of Subregion	Total Acres	Total Percent
North - East	117,570	20%	122,783	20%	240,353	40%
South - East	63,264	19%	154,534	47%	217,798	66%
Core Ridge	38,576	8%	53,869	11%	92,445	18%
North - West	63,364	15%	115,603	28%	178,967	44%
South - West	83,674	29%	111,764	39%	195,438	67%
<b>Total</b>	<b>366,448</b>	<b>17%</b>	<b>558,553</b>	<b>26%</b>	<b>925,001</b>	<b>43%</b>

## TAKEAWAYS:

- Prime farmland soils account for 17% of the KRCL totaling nearly 370,000 acres. An additional 26% (nearly 560,000 acres) of the KRCL are farmland soils of statewide importance.
- The South-West has the highest percentage of prime farmland soils at nearly one-third of the subregion (29%). While the other three subregions (excluding the Core Ridge) still have substantial amounts of prime soils averaging 18%, they are well below the South-West.
- The two subregions south of the ridge have high percentages of statewide important farmland soils – 39% of the South-West and 47% of the South-East.

Map 12: Agricultural Soils by Subregion





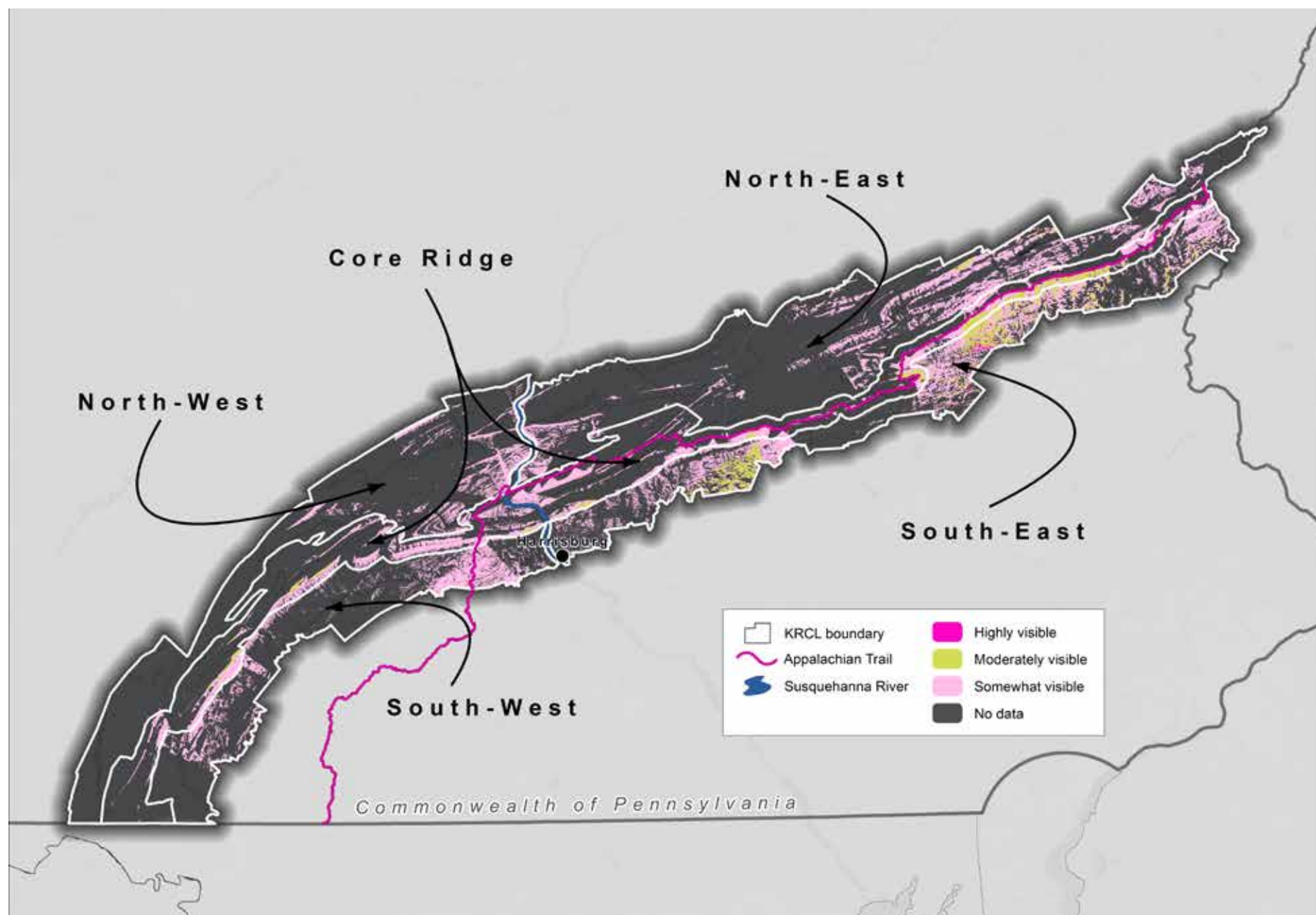
- When both prime and state important farmland soils are aggregated among all subregions, there is a distinct difference in the KRCL. Two-thirds of subregions south of the ridge (66% and 67% respectively) are farmland soils of significant importance, compared to an average of 42% for subregions north of the ridge.
- Conservation efforts focused on maintaining and preserving agricultural opportunity could choose to focus on prime and statewide important farmland soils proximate to major transportation lines.
- Further research should be conducted to better understand where agricultural conservation efforts should be focused based on these and other factors. For example, considering the pace of development, it may be worth focusing efforts where no sign of warehouse development currently exists. During the in-person meetings, several individuals shared the belief that farmland soils around current warehouses are already planned for further development and conservation efforts should be looking further afield.

## VIEWS

The national visibility of the KRCL is significant due in large part to the Appalachian National Scenic Trail (Appalachian Trail, A.T.) running through more than 160 miles of the landscape. The presence of the A.T. and the Appalachian Trail Conservancy (ATC) cannot be overstated in the region's conservation efforts. Significant pressures, including landscape fragmentation and development, are interrupting and negatively impacting important views from the A.T. The ATC has worked to inventory existing viewpoints along the A.T. within the KRCL and important viewsheds, therein. According to the ATC, this "was conducted to complement the Appalachian National Scenic Trail's viewshed analysis by providing a more detailed understanding of the scenic resources during the high-use and dense foliage seasons." Table 11 shows the breakdown of visible land by subregion.

Table 11: ATC Viewshed by Subregion										
Visibility from AT Viewpoints	North-East		South-East		Core Ridge		North-West		South-West	
	Total Acres	Subregion Percent	Total Acres	Subregion Percent	Total Acres	Subregion Percent	Total Acres	Subregion Percent	Total Acres	Subregion Percent
Highly visible	-	-	1,393	0.4%	21	0.004%	-	-	-	-
Moderately visible	1,282	0.2%	29,267	9%	16,218	3%	60	0.01%	49	0.02%
Somewhat visible	90,152	15%	107,887	33%	116,174	23%	34,314	8%	58,808	20%
<b>Total</b>	<b>91,434</b>	<b>15%</b>	<b>138,547</b>	<b>42%</b>	<b>132,413</b>	<b>26%</b>	<b>34,374</b>	<b>8%</b>	<b>58,857</b>	<b>20%</b>

Map 13: ATC Viewsheds by Subregion



Map 12 shows the distribution of visible land within the KRCL and displays key locational considerations of moderate and highly visible areas. From this map, it's clear to see significant areas in the South-East subregion with moderate visibility from the AT. Given the location of these areas between Harrisburg and other urban centers including Allentown, and their proximity to major transportation lines, these areas may present a high risk.

#### **TAKEAWAYS:**

- Viewsheds from important AT vista locations account for 21% of the KRCL totaling over 455,000 acres.
- The South-East has the highest percentage of visible land – 42% of the subregion is visible from A.T. vista locations.
- Three other subregions – North-East, Core Ridge, and South-West – all average 20% of land visible from A.T. vista locations. More specifically, the South-East has the highest amount of moderately visible land accounting for 9% of the subregion.
- If the Appalachian Trail is to continue helping draw national and international recognition to the region, it is crucial for the KRCL to help preserve important vistas and their viewsheds from development, fragmentation, and suburbanization. There are significant opportunities in the South-East subregion to preserve and maintain the existing views.
- As discussed in this section, there is a high value placed on views from the ridge. What should not be overlooked are the views of the ridge from lower elevations. Whether residents of the KRCL recognize it or not, views of the ridge connect and center people to this landscape and are vital in helping foster a sense of place, and support outdoor recreation economy and adjacent business opportunities. Further research should be conducted to identify important views of the ridge throughout the KRCL.

#### **SUBREGION PROFILES**

Pages 58 through 65 highlight key information about each KRCL subregion as identified in this Conservation Plan.

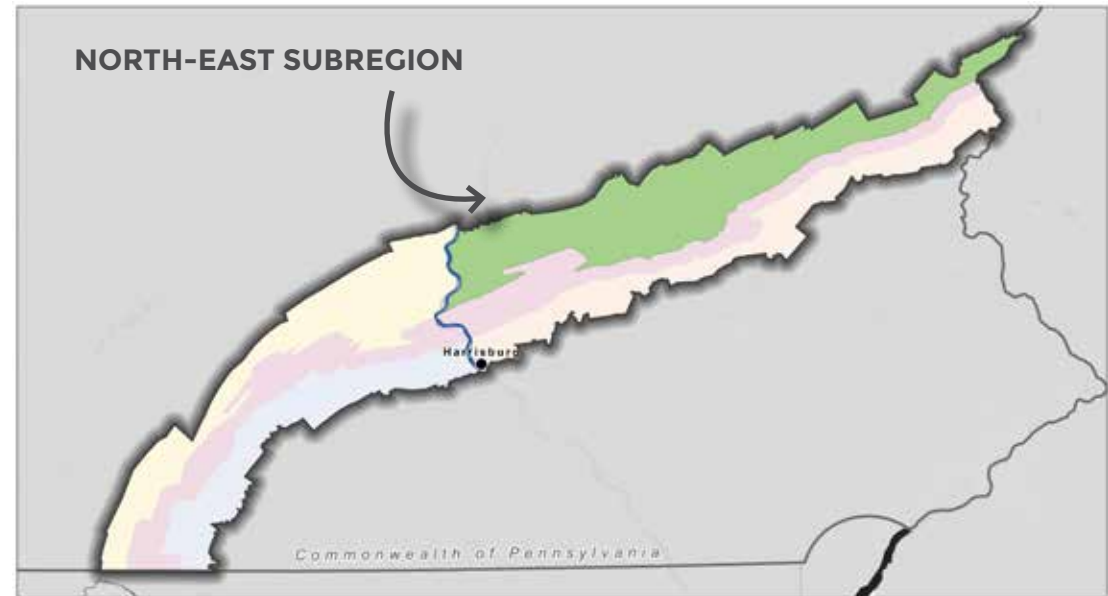


# NORTH-EAST SUBREGION

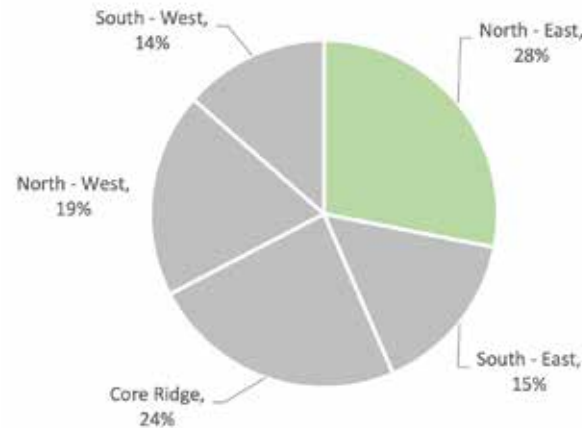
## KRCL CONSERVATION PLAN



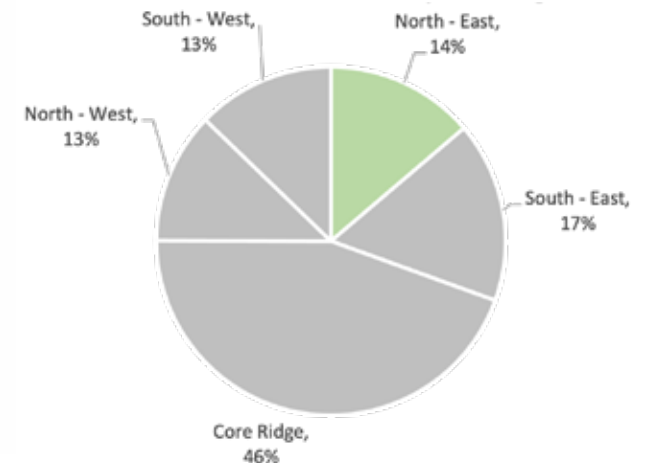
*The North-East Subregion is the largest subregion in the KRCL by area accounting for more than ¼ (28%) of the entire conservation landscape. Despite its large size, it contains a relatively small percentage of conserved lands within the KRCL (14%). Protected lands in this sub-region include Hawk Mountain Sanctuary, Tuscarora State Park, the Delaware Water Gap Recreation Area, Cherry Wildlife National Refuge, state game lands, and many lands with conservation and agricultural easements.*



KRCL Area by Subregion



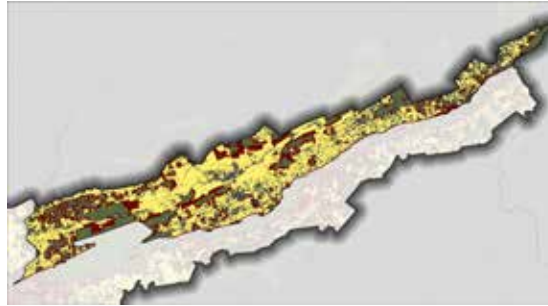
KRCL Conserved Land by Subregion






# LANDSCAPE ANALYSIS FINDINGS

## NORTH-EAST SUB-REGION




### ECOLOGICAL PRIORITY



	HIGH	21% OF SUB-REGION
	MODERATE	1% OF SUB-REGION
	SOME	54% OF SUB-REGION




### POTENTIAL FOR INCREASING REPRESENTATION



	HIGH	4% OF SUB-REGION
	MODERATE	48% OF SUB-REGION
	SOME	23% OF SUB-REGION




### NEED FOR RECREATIONAL ACCESS



	HIGH	1% OF SUB-REGION
	MODERATE	16% OF SUB-REGION
	SOME	63% OF SUB-REGION

### INCLUSIVE CONSERVATION POTENTIAL



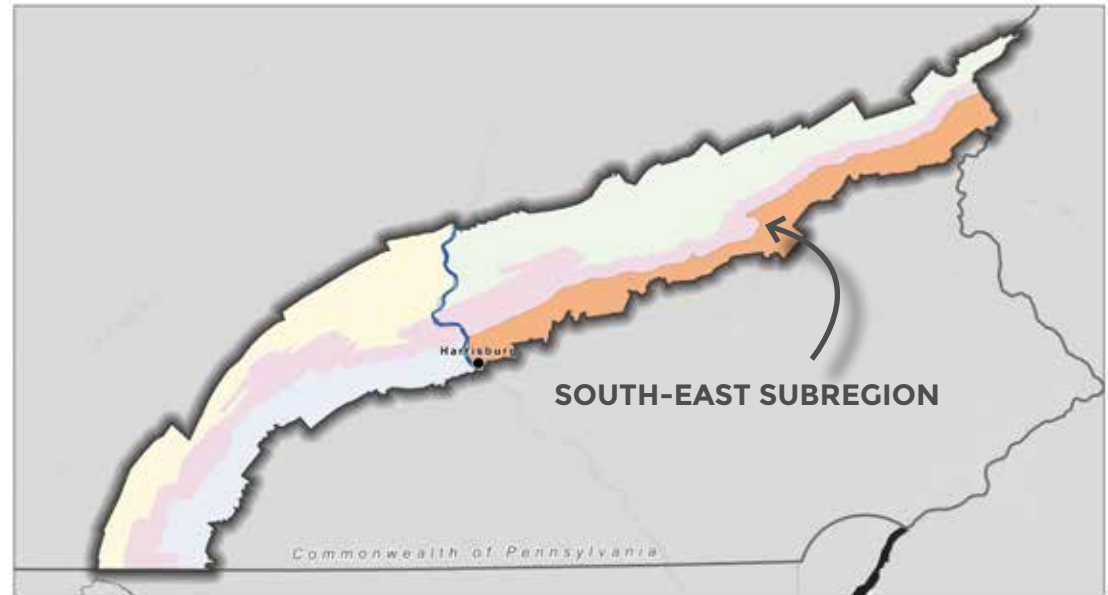
	HIGH	34% OF SUB-REGION
	MODERATE	45% OF SUB-REGION
	SOME	51% OF SUB-REGION

# SOUTH-EAST SUBREGION

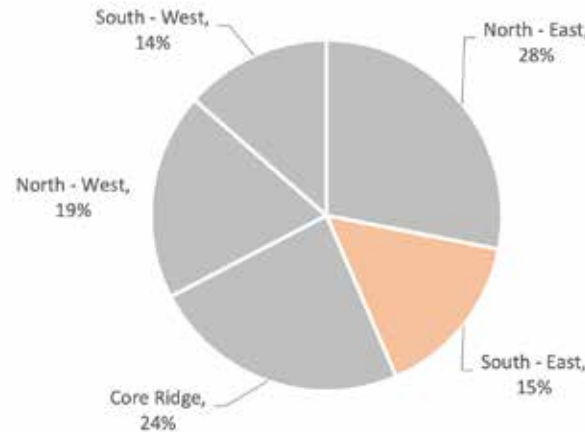
## KRCL CONSERVATION PLAN



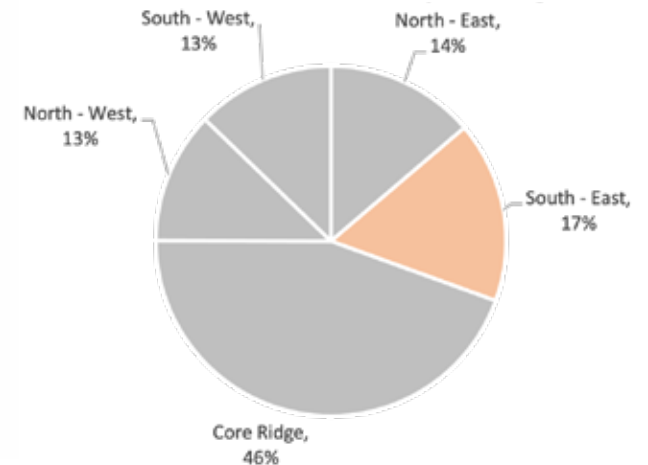
*The South-East Subregion is the second smallest subregion within the KRCL by area. It is a relatively flat landscape dominated by agriculture, open space, and dense development. This subregion contains the KRCL's main urban hub, Harrisburg, as are the outskirts of Allentown. It consists of large amounts of important agricultural lands and extensive views of the Kittatinny Ridge. Protected lands in this sub-region include the Jacobsburg Environmental Education Center, Fort Indiantown Gap, and many lands with conservation and agricultural easements.*



KRCL Area by Subregion



KRCL Conserved Land by Subregion

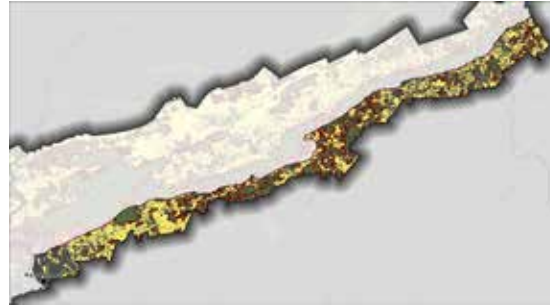




# LANDSCAPE ANALYSIS FINDINGS

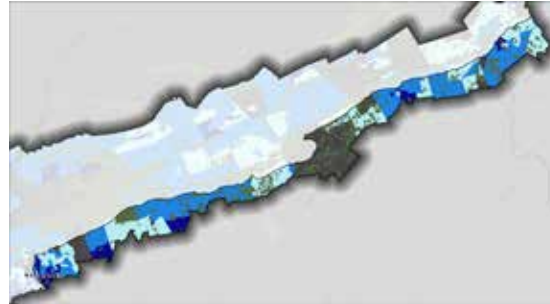
## SOUTH-EAST SUB-REGION

### ECOLOGICAL PRIORITY



	HIGH	21% OF SUB-REGION
	MODERATE	18% OF SUB-REGION
	SOME	40% OF SUB-REGION

### POTENTIAL FOR INCREASING REPRESENTATION



	HIGH	8% OF SUB-REGION
	MODERATE	40% OF SUB-REGION
	SOME	32% OF SUB-REGION

### NEED FOR RECREATIONAL ACCESS



	HIGH	0.3% OF SUB-REGION
	MODERATE	5% OF SUB-REGION
	SOME	79% OF SUB-REGION

### INCLUSIVE CONSERVATION POTENTIAL



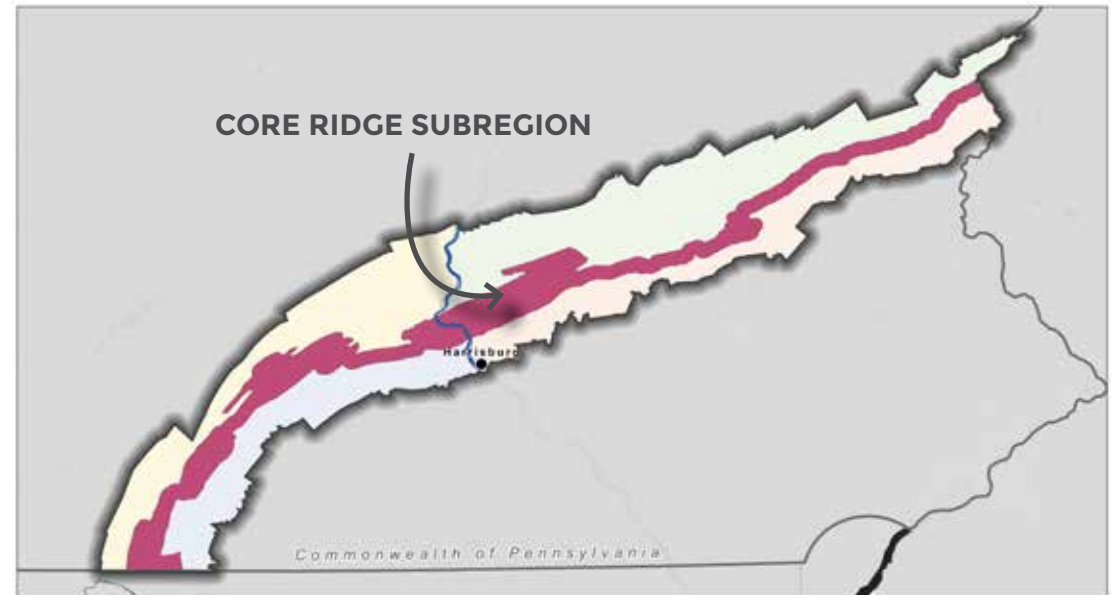
	HIGH	1% OF SUB-REGION
	MODERATE	39% OF SUB-REGION
	SOME	58% OF SUB-REGION

# CORE RIDGE SUBREGION

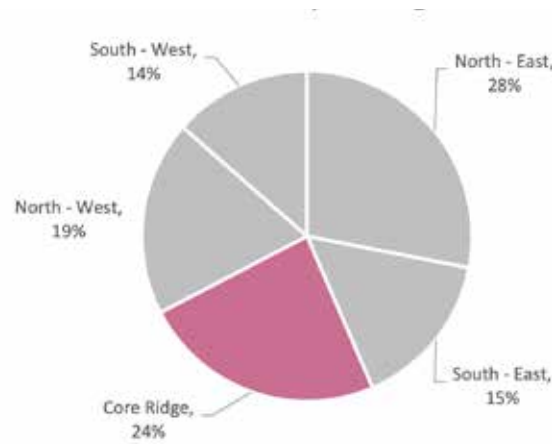
## KRCL CONSERVATION PLAN



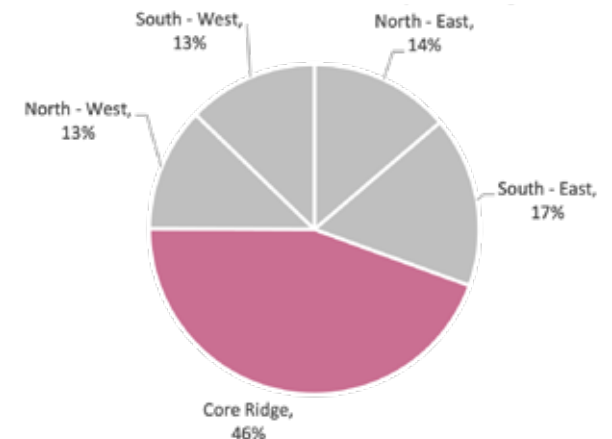
*The Core Ridge Subregion is the second largest subregion by area accounting for nearly ¼ (24%) of the entire KRCL. Nearly half of all conserved lands (46%) within the KRCL are found within the Core Ridge. This subregion is dominated by higher elevation forests and contains 160 miles of the Appalachian Trail and 60 miles of the Tuscarora Trail. Protected lands in this sub-region include Tuscarora State Forest, significant land holdings by private land trusts, such as The Nature Conservancy, state game lands, Cherry Valley National Wildlife Refuge, and the Appalachian National Scenic Trail.*



KRCL Area by Subregion



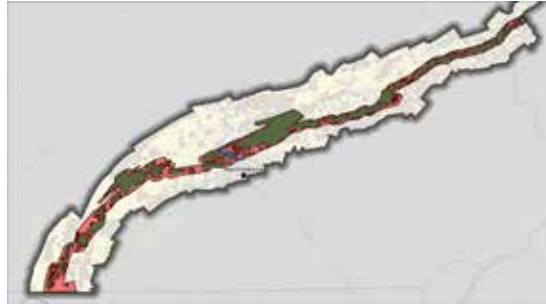
KRCL Conserved Land by Subregion






# LANDSCAPE ANALYSIS FINDINGS

## CORE RIDGE SUB-REGION

### ECOLOGICAL PRIORITY






	HIGH	42% OF SUB-REGION
	MODERATE	42% OF SUB-REGION
	SOME	0% OF SUB-REGION

### POTENTIAL FOR INCREASING REPRESENTATION

*Census data used to identify areas of potential for increased representation have limitations within the Core Ridge. The results from this section have been removed because of these factors.*

### NEED FOR RECREATIONAL ACCESS



	HIGH	7% OF SUB-REGION
	MODERATE	29% OF SUB-REGION
	SOME	45% OF SUB-REGION

### INCLUSIVE CONSERVATION POTENTIAL



*Culminating co-occurrence results have been removed from this section because of Census data limitations within the Core Ridge.*

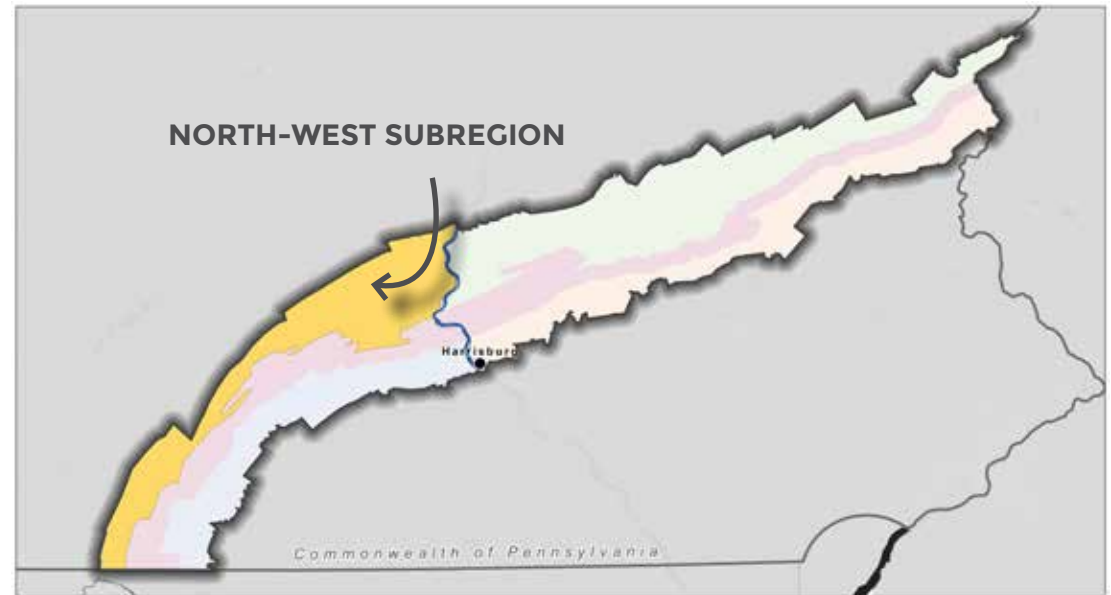


# NORTH-WEST SUBREGION

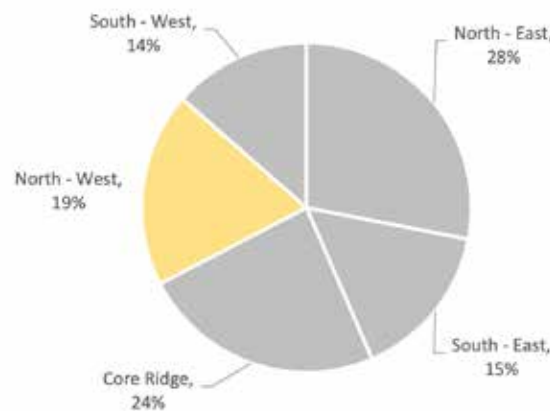
## KRCL CONSERVATION PLAN



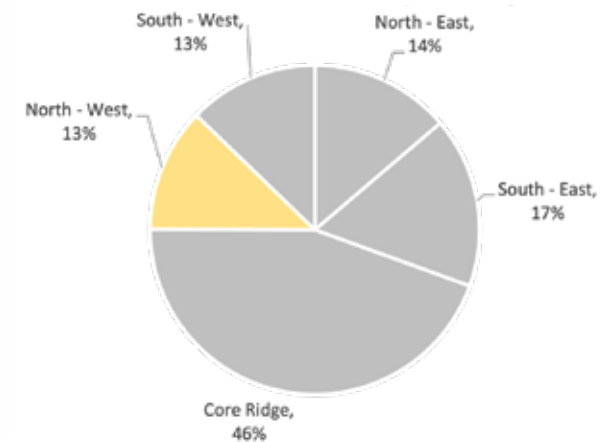
*The North-West Subregion is the third largest subregion within the KRCL by area. It contains ridges and valleys with large patches of conserved lands and 8 miles of the Tuscarora Trail. The South-East Subregion has significant potential for collaborative, inclusive conservation projects that provide many benefits to people and nature. Protected lands in this sub-region include the Buchanan State Forest, the Tuscarora State Forest, Cowans Gap State Park, and lands with conservation and agricultural easements.*



KRCL Area by Subregion



KRCL Conserved Land by Subregion



# LANDSCAPE ANALYSIS FINDINGS

## NORTH-WEST SUB-REGION

### ECOLOGICAL PRIORITY



### POTENTIAL FOR INCREASING REPRESENTATION









### NEED FOR RECREATIONAL ACCESS









### INCLUSIVE CONSERVATION POTENTIAL



	HIGH	18% OF SUB-REGION
	MODERATE	3% OF SUB-REGION
	SOME	66% OF SUB-REGION

	HIGH	11% OF SUB-REGION
	MODERATE	36% OF SUB-REGION
	SOME	35% OF SUB-REGION

	HIGH	22% OF SUB-REGION
	MODERATE	35% OF SUB-REGION
	SOME	35% OF SUB-REGION

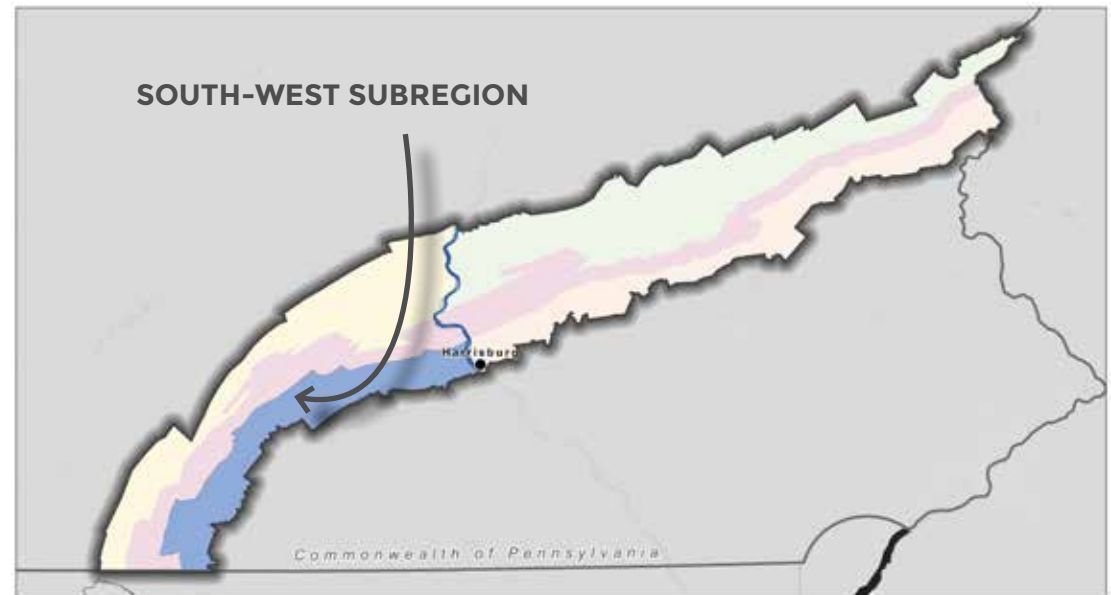
	HIGH	9% OF SUB-REGION
	MODERATE	63% OF SUB-REGION
	SOME	28% OF SUB-REGION

# SOUTH-WEST SUBREGION

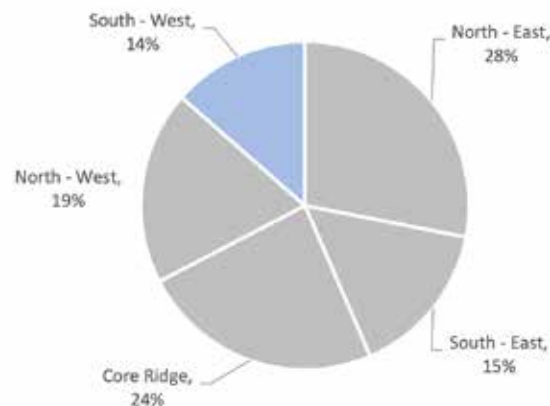
## KRCL CONSERVATION PLAN



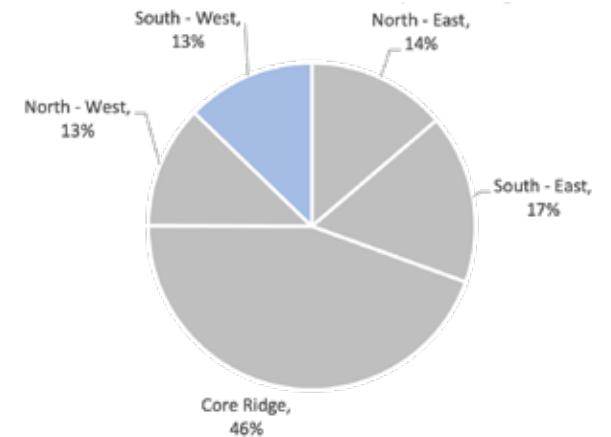
*The South-West Subregion is the smallest subregion within the KRCL by area. It's a relatively flat landscape dominated by agriculture, open space, and areas of dense development. Enola and Camp Hill are urban areas across the Susquehanna River from Harrisburg. Carlisle is another development center of the subregion. 10 miles of the Appalachian Trail extend through this subregion. Protected lands in this sub-region include state game lands, Department of Defense land, and lands with conservation and agricultural easements.*



KRCL Area by Subregion



KRCL Conserved Land by Subregion

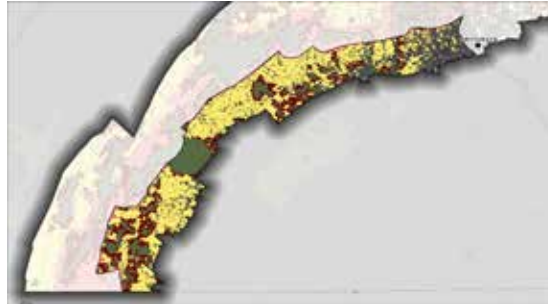







# LANDSCAPE ANALYSIS FINDINGS

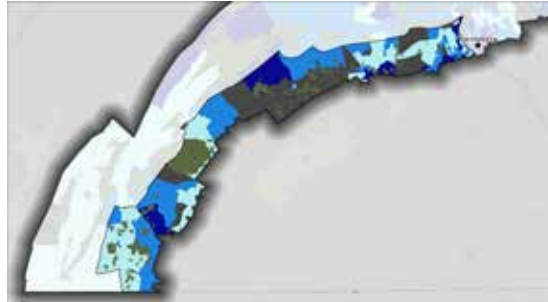
## SOUTH-WEST SUB-REGION


### ECOLOGICAL PRIORITY



	HIGH	16% OF SUB-REGION
	MODERATE	3% OF SUB-REGION
	SOME	53% OF SUB-REGION


### POTENTIAL FOR INCREASING REPRESENTATION



	HIGH	11% OF SUB-REGION
	MODERATE	32% OF SUB-REGION
	SOME	29% OF SUB-REGION




### NEED FOR RECREATIONAL ACCESS



	HIGH	2% OF SUB-REGION
	MODERATE	30% OF SUB-REGION
	SOME	55% OF SUB-REGION

### INCLUSIVE CONSERVATION POTENTIAL



	HIGH	3% OF SUB-REGION
	MODERATE	49% OF SUB-REGION
	SOME	46% OF SUB-REGION



# A SNAPSHOT OF INCLUSIVE CONSERVATION POTENTIAL BY SUB-REGION

## What is Inclusive Conservation Potential?

Traditional conservation plans often focus explicitly on the opportunities to protect natural and ecological communities from challenges like development and fragmentation. While there's a great deal of value with that approach, this conservation plan for the Kittatinny Ridge Conservation Landscape (KRCL) brings in added demographic and recreational concepts to form a more holistic approach to land protection. It's critical that the future of the KRCL incorporate a diverse network of organizations, partners, and individuals that may have been overlooked or excluded from previous conservation efforts. Bringing together a diverse network of voices and decision-makers creates a more robust conservation landscape that works for the more people and natural communities on more levels.

## Sub-Region Summaries

The following page is designed to be a high-level summary of the makeup of each subregion's potential for inclusive conservation. Ultimately, this describes broad co-benefit opportunities that exist within each subregion for inclusive conservation. It's critical that KRCL leadership and partners be able to draw prominent conclusions from an analysis that was complex and detail-oriented. This will help decision-makers (1) efficiently understand the landscape analysis results, (2) screen projects and search for those with multiple benefits that are appropriate for the subregion, and (3) easily and broadly communicate with partners about potential co-benefits tailored to each subregion.

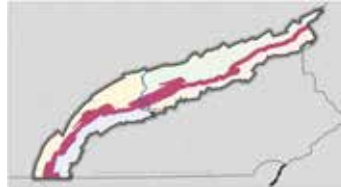
**NORTH-EAST  
SUB-REGION**



**SOUTH-EAST  
SUB-REGION**



**CORE RIDGE  
SUB-REGION**



**NORTH-WEST  
SUB-REGION**



**SOUTH-WEST  
SUB-REGION**



**High amount  
of ecological  
priority**

**High amount  
of ecological  
priority**

**High amount  
of ecological  
priority**

**High amount  
of ecological  
priority**

**High amount  
of ecological  
priority**

**Moderate  
potential for  
increasing  
representation**

**Moderate  
potential for  
increasing  
representation**

**By far, highest  
ecological  
priority of all  
subregions.**

**High potential  
for increasing  
representation**

**High potential  
for increasing  
representation**

**Moderate  
opportunity  
for increasing  
recreational  
access**

**Some  
opportunity  
for increasing  
recreational  
access**

**High  
opportunity  
for increasing  
recreational  
access**

**Moderate  
opportunity  
to increase  
recreational  
access**

**Highest opportunities  
across three themes an  
greatest potential for  
inclusive conservation.**





# IMPLEMENTATION

To realize the future vision of the Kittatinny Ridge Conservation Landscape, a series of implementation actions were developed as part of the planning process. While the KRCL leadership team will serve as the primary coordinators for many of these actions, other organizations, agencies, businesses, and community groups will need to be involved to achieve the vision presented in this plan. Given the diversity of actions needed at a variety of scales (parcel, borough, county, subregion, and landscape), this Conservation Plan will be implemented through coordinated collaborations as well as through individual efforts that meet the spirit of the Plan.

The actions are located in an implementation table that starts on page 75. To better understand how the actions meet the goals of this Plan, an icon was created for each of the five primary goals of the Conservation Plan. In the implementation table, each action includes the goal icons it addresses. Please note that the number of goal icons an action addresses does not reflect its level of importance - it merely shows that it addresses multiple goals of the Plan. Looking ahead, it is recommended that the KRCL leadership team annually identify the top conservation plan actions to be prioritized for that year.

**CONSERVATION PLAN GOAL #1:**  
**INCREASE COORDINATED AND HOLISTIC  
LAND CONSERVATION, NATURAL RESOURCE  
PROTECTION, AND STEWARDSHIP INITIATIVES**



- Encourage the identification of conservation opportunities from a holistic lens, integrating the ecological, social, recreation, and economic aspects of land protection, to expand the partner network and capacity for this work.
- Promote a coordinated, landscape-scale approach to direct land acquisition and conservation easement protections in the future.
- Protect, restore, and maintain ecosystems and natural resources on the Ridge and in adjacent low-lying areas projects at multiple scales, from broader landscape scale projects to smaller community-scale initiatives.
- Increase habitat connectivity and enhance climate change resilience through land protection and policy.

**CONSERVATION PLAN GOAL #2:**  
**PROMOTE THE KRCL'S SENSE OF PLACE AND  
BUILD COMMUNITY IDENTITY AROUND OUR  
SHARED NATURAL SYSTEMS**



- Raise awareness of the Ridge and the surrounding natural landscape and how nature contributes to the health and wellbeing of communities and the economy.
- Promote the shared vision for the KRCL and build community identity around our shared resources.

**CONSERVATION PLAN GOAL #3:**  
**SUSTAIN AND EXPAND OUTDOOR  
RECREATION RESOURCES AND ACCESS**



- Preserve and grow outdoor recreational opportunities, provide additional recreational access, and enhance recreation connections and corridors.

**CONSERVATION PLAN GOAL #4:**  
**SUPPORT NATURE-BASED ECONOMIC  
DEVELOPMENT**

























- Promote nature-based placemaking and economic development to positively impact local economies in the landscape.
- Educate decision makers about the financial benefits of natural systems in the KRCL.









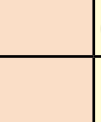
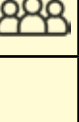










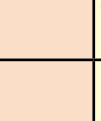

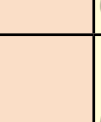
**CONSERVATION PLAN GOAL #5:**  
**BUILD A STRONG AND DIVERSE PARTNER  
NETWORK**

































- Welcome and invite a diverse network of partners to join the conservation planning process. Build and sustain reciprocal relationships.
- Inspire residents, local officials, organizations, and agencies to work together to drive strategic investment and action around sustainability, conservation, community revitalization, civic engagement, and recreational projects.
- Embrace equity and inclusion as guiding principles in conservation planning work to ensure an equitable distribution of conservation benefits.

#	ACTION					
1	Prioritize the conservation of high priority natural lands that connect existing conserved lands to create contiguous habitat and wildlife corridors. Connect low-land areas of the landscape to the ridge through greenways, regional trails, and protected river corridors. Work with a diverse set of partners to accomplish this including municipalities, land protection organizations, county parks, watershed protection groups, and other community groups. Utilize and promote the Nature Conservancy's Resilient and Connected Tool to examine land protection connectivity opportunities. Enlist partners in the pursuit and protection of other assets as prioritized.					
2	Consider and prioritize conservation projects that provide conservation and other benefits for under resourced communities (e.g., improved air or water quality, tree canopy cover, stormwater management, reduction of heat island effect).					
3	Identify farmland parcels that provide the best opportunity for conservation in the future.					
4	Identify all critical viewsheds in the KRCL. This should include views from low elevations up to the ridge as well as the ATC's identified viewsheds from the ridge.					
5	Develop and implement a program to reach out proactively to landowners in high priority areas to help them understand the role their land plays in advancing resiliency, their conservation options, cultivate their interest in preserving their land, and introduce the KRCL (and/or its partners) as an organization that can help. <b>(From Strategic Plan)</b>					
6	Encourage land protection partners to incorporate the holistic conservation landscape analysis and document into existing organizational land protection goals and objectives, and into their organization's project prioritization processes as they are able to. Organizations without a specific land protection mission can also work to incorporate the landscape analysis and document into their organizational objectives that may offer broader benefits to the ecological and social communities. Consider creating an interactive mapping tool to better share the landscape analysis data with potential partners throughout the KRCL.					
7	Continue to refine the holistic conservation landscape occurrence analysis. Incorporate the updated recreational needs data from DCNR into the landscape scale analysis when available. Consider incorporating agricultural soils data and ATC viewshed data. Consider a mechanism to better incorporate ecological connectivity data.					



8	Continue to refine the subregion boundaries as a precursor to establishing a more localized, subregion-specific communication campaign regarding the KRCL conservation plan and future priorities. Recruit local ambassadors to help with communication and coordination.					
9	Distribute information highlighting conservation stewardship opportunities that can be shared with property owners in areas where the potential for inclusive conservation is highest, or in areas of Green Ribbon Landscapes for communities that have completed ROE evaluations.					
10	Systematically and consistently communicate progress in advancing protection priorities and their impact among decision-makers, partners, and the general public. <b>(From Strategic Plan)</b>					
11	Create comprehensive plan for avian migratory stopover habitat projects along the ridge identifying priority sites for stopover sites and young forest management.					
12	Implement transmission line restoration work to expand young forest habitat in transmission corridors and softening fragmentation effects for surrounding mature forest parcels.					
13	Create additional migratory stopover sites by enhancing structurally complex, young forest patches with supplemental soft mast plantings/seedings.					
14	Link communities in the KRCL to greenways, trails, and outdoor recreational offerings by expanding and connecting existing recreation networks. Additionally, connect existing recreational networks with “in-town” recreational assets and amenities. Consider developing a recreational infrastructure inventory for the KRCL. This could include developing an inventory form that can be shared with partners and local governments. This will help understand recreational gaps that exist, primarily in western KRCL.					
15	Incorporate the KRCL and its conservation goals into all county comprehensive and open space plans within the corridor. Incentivize the adoption of county and municipal plans, regulations and programs that help protect the KRCL through mini-grant programs. Encourage the creation of Environmental Advisory Councils (EAC) at the municipal level. Consider hosting a regional meeting with all EACs centered on mutual region-wide challenges and opportunities. Promote best practices for land use planning in the KRCL. <b>(From Strategic Plan)</b>					
16	Integrate the KRCL, sustainability, and resiliency into local comprehensive plans and land use regulations and policies in partnership with county planning departments. <b>(From Strategic Plan)</b>					
17	Increase county and municipal capacity to conserve the KRCL through training, outdoor experiences, and technical assistance. <b>(From Strategic Plan)</b>					
18	Encourage collaborative planning efforts between municipalities and their local military installations, including efforts that encourage regular communication, climate resilience considerations/planning, and conservation values.					

19	Identify sustainable community development models in PA and beyond and match models to community needs along the KRCL. <b>(From Strategic Plan)</b>					
20	Partner with economic development corporations, tourism bureaus, or other similar organizations to advance sustainable economic development.					
21	Continue working with KRCL counties to provide ROE evaluations that describe the economic value of natural resources and open space to encourage preservation and restoration in decisions throughout the communities. Highlight the value of protecting natural services and open space by using ROE tools to identify the economic impacts of maintaining, losing, or restoring natural areas and open space. Use the tools to engage government leaders, local planners, economic development and business representatives, local conservation groups and the public to help craft and support local initiatives to protect the resource areas while maintaining a resilient local economy.					
22	Use ROE tools to identify areas where restoration opportunities, such as replanting riparian buffers, connecting greenway corridors, or restoring forests edges can provide the greatest return on ecosystem services, providing open space access to underserved communities, or maintaining biological diversity.					
23	Invest in market research and the development of market profiles to further understand the value the populace places in, and their relationship with, the Ridge overall, messages and experiences that may resonate more regionally, and stimulate preservation action. <b>(From Strategic Plan)</b>					
24	Plan for and promote collaboration of partners (including public, private, etc.) to manage conserved lands that span ownership boundaries. Consider developing an Integrated Land Management Plan where public, private, industry, and NGO partnerships can collaborate to manage conserved lands that span ownership boundaries.					
25	Develop partnerships between the KRCL and other nearby conservation landscapes including South Mountain Partnership, Lehigh Valley Greenways, and the Schuylkill Highlands to share resources, discuss common projects and goals, and tackle mutual challenges.					
26	Support partners and/or regional leadership in the creation of pilot education, engagement, and communications initiatives which utilize the Kittatinny brand and incorporate more specific place-based knowledge. <b>(From Strategic Plan)</b>					
27	Work with partners to develop educational materials that inform various population groups in the KRCL of the Conservation Plan and of the shared environmental resources that exist, why they're important, and why they should be valued. This should centralize and assure continuity of the Conservation Plan messages and language that are made public. It should also help develop a culture of conservation.					

28	Create a speaker series of virtual and/or in-person events related to the conservation and stewardship of the Kittatinny Ridge region. The KRCL could “host” the events with different local groups presenting on various topics such as the outdoor economy, conservation success stories, climate resilience, greenways and connectivity, and equity in the outdoors.					
29	Consider coordinating an annual gathering of the KRCL partners to network and learn about landscape-scale conservation for the landscape and communities within. This would be a broad partner gathering for land protection groups, municipalities, businesses, and others.					
30	Establish meaningful relationships with diverse groups that may have shared conservation goals. Learn more about their ongoing work and work together with communities to find mutually beneficial projects. Host listening sessions with new potential partners to focus on hearing from them and learning about their goals and interests.					
31	Forge mutually beneficial relationships with the various Indigenous Tribes and Nations who are connected to this land. Research and learn about each separate Tribe and Nation. Recognize this will be very long-term, ongoing work that requires knowledge, energy, time, and commitment to change and growth.					

#	ADMINISTRATIVE ACTIONS
29	Continue to apply for and implement the land trust subgrant award in partnership with DCNR for land protection and landowner outreach.
30	Pursue Sentinel Landscape Designation. Investigate federal and state funding to advance this Conservation Plan, including the Sentinel Landscape designation. <b>(From Strategic Plan)</b>
31	Distinguish and grow land and water protection funds year over year to increase the agility to pursue, and succeed in, land protection efforts. <b>(From Strategic Plan)</b>
32	Identify multiple funding sources for easements. Specifically, funding opportunities that exist to cover landowner payment and/or stewardship fees. Developing relationships with foundations could also help create new funding opportunities.
33	Track land protection metrics and provide annual updates related to our overarching conservation goals.
34	Identify research needs (gaps) that would advance progress on other KRCL goals and recruit/request proposals to fill gaps. <b>(From Strategic Plan)</b>
35	Continue to celebrate partner efforts and accomplishments through the newsletter, social media, and other outreach mechanisms to highlight the good work being done around conservation in the KRCL.





# APPENDIX A: EXPANDED LANDSCAPE AND SUBREGION ANALYSIS REPORT

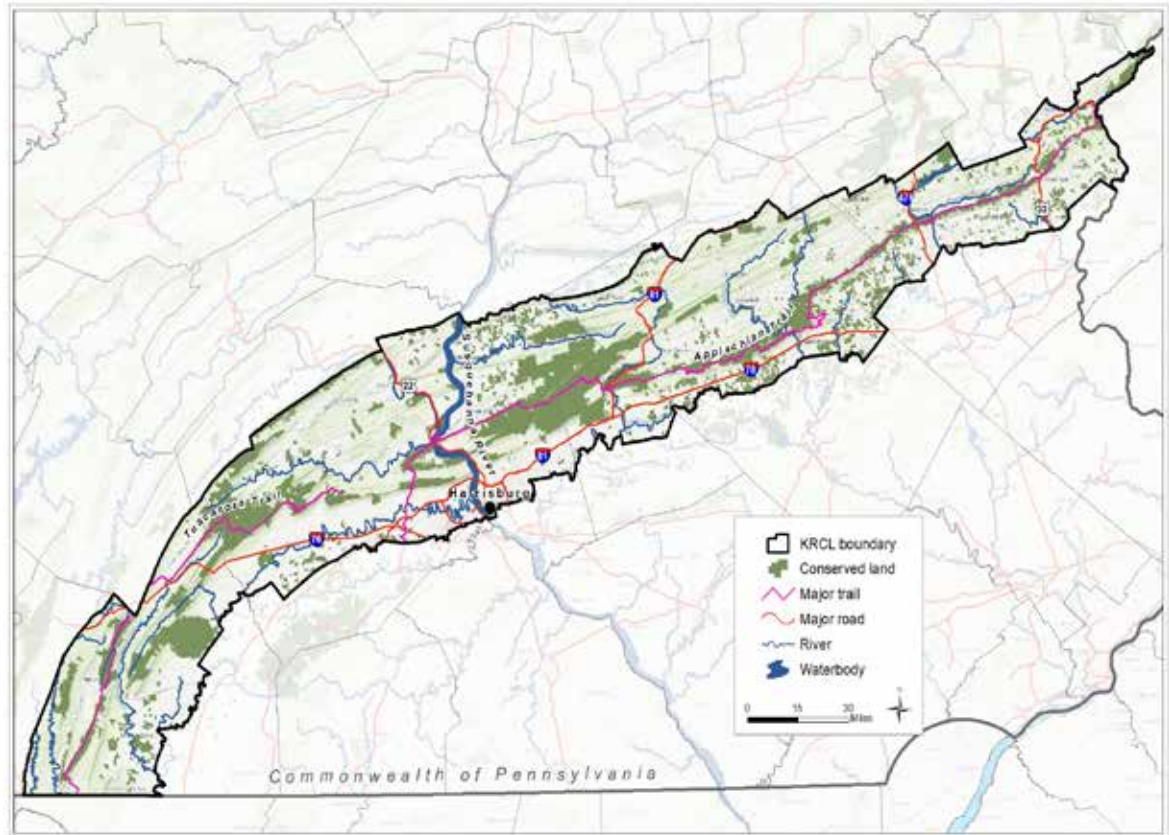
## **EXPANDED LANDSCAPE ANALYSIS PROJECT AREA**

Meaning “endless mountain” from the Lenni-Lenape, the word Kittatinny has come to be the dominant association with the landscape. Stretching southwest from the border with western-central New Jersey to the northern-central border of Maryland, the Kittatinny Ridge Conservation Landscape (KRCL) accounts for 2,158,010 acres of Pennsylvania’s Appalachian Mountains and valleys, which is shown in Map 1. The Landscape incorporates the 185-mile Kittatinny Ridge from the Delaware River to the Mason-Dixon Line and “is home to the world-famous Appalachian Trail.”<sup>1</sup> Eighty percent of the area is covered by forest and shrub and includes extensive federal, state, and privately conserved land including 3 state forests and 5 state parks.<sup>2</sup> Additionally, the ridge supports 7 Important Mammal Areas and is considered a Global Important Bird

Area providing a significant corridor for major bird and butterfly migration and stopover sites for neotropical migrants. Properties across the lower elevations and the many valleys of the landscape are home to extensive agricultural lands and areas of rural, suburban, and urban development including Harrisburg and parts of outlying Allentown.

In addition to the 12 counties and 136 municipalities that are represented in the KRCL, the area is home to a population of around 930,000\*.<sup>3</sup> The Landscape provides extensive recreational offerings including 160 miles of the Appalachian Trail and 60 additional miles of the Tuscarora Trail; hundreds of miles of local trails; is an international destination for birdwatching, including 7 hawk watch sites; and includes a wide array of hunting and fishing areas. Given the number of people living in the KRCL, a vast network of active and passive recreation areas exists from local parks and playgrounds to forms of accessible water recreation along the Susquehanna River and its tributaries.

**MAP 1: THE KITTATINNY RIDGE CONSERVATION LANDSCAPE PROJECT AREA**



## INTRODUCTION TO LANDSCAPE-SCALE ANALYSIS

The Kittatinny Ridge Conservation Landscape (KRCL) is composed of natural landscapes, communities, cultural assets, outdoor recreation opportunities, and diverse populations of people. In planning to address future challenges and threats that pose risks to the landscape and to meet the goals laid out in this conservation plan, a landscape-scale analysis of ecological priorities, demographic diversity of communities, and recreational access needs was completed. The purpose of

this approach was to identify and analyze the varying needs and opportunities throughout the landscape, and to identify areas of overlap where additional effort can be focused in the future.

Diverse, collaborative partnerships are needed to conserve landscapes. Spatially, the areas of overlap between these three components, or their level of co-occurrence across the landscape, provide insight into holistic conservation needs, and inclusive conservation opportunities, that go beyond traditional land protection goals. This was illustrated in the analysis earlier in the document. Maximizing the benefits of conservation projects will create opportunities for new partnerships that have different but shared goals, whether they relate to land stewardship, community development, or water resource management.

Depending on how many themes overlap, there will be degrees of co-occurrence from high to low. It's important to recognize that areas with a low co-occurrence score may still be highly valuable for their ecological value, demographic diversity, or recreational access. This co-occurrence model focuses on conservation opportunities providing multiple benefits or interests. Because of this, a landscape scale approach provides one lens for identifying opportunities for land protection that are collaborative and attract diverse partnerships. Ultimately, this approach strives to make the land conservation process and protected landscape more accessible, targeted, effective, and successful for all communities with ties to the KRCL.

We analyzed, at the landscape-scale, the interaction between:

- (1) ecological priorities,
- (2) demographic diversity, and
- (3) the anticipated needs for recreational access.

Figure 1 shows the overlapping analysis of the three themes that was conducted. Spatially, the areas of overlap between these three components provided insight into holistic and inclusive conservation opportunities that go beyond traditional land protection goals. Identifying areas of greatest potential will provide a more targeted approach to conservation efforts allowing activities like outreach, marketing, and funding opportunities to be more efficient and effective over time. Ultimately, this approach strives to make the



Figure 1: Overlapping themes of the Landscape-Scale Analysis



land conservation process and protected landscape more accessible, targeted, effective, and successful for all inhabitants of the KRCL.

## **METHODOLOGY**

### **ECOLOGICAL PRIORITIES**

The ecological priorities for the Kittatinny Ridge Conservation Landscape (KRCL) were provided by The Nature Conservancy, an important partner organization supporting conservation efforts across the KRCL. These ecological priorities are the result of years of extensive collaborative efforts culminating in a thoughtful, targeted, and effective work product laying the groundwork for this landscape-scale analysis and, ultimately, this Conservation Plan. The KRCL, through Audubon Mid-Atlantic and The Nature Conservancy, partnered with the Shippensburg University Center for Land Use and Sustainability (CLUS) to complete a parcel level assessment to guide conservation efforts in the Kittatinny Ridge Landscape (KRL).

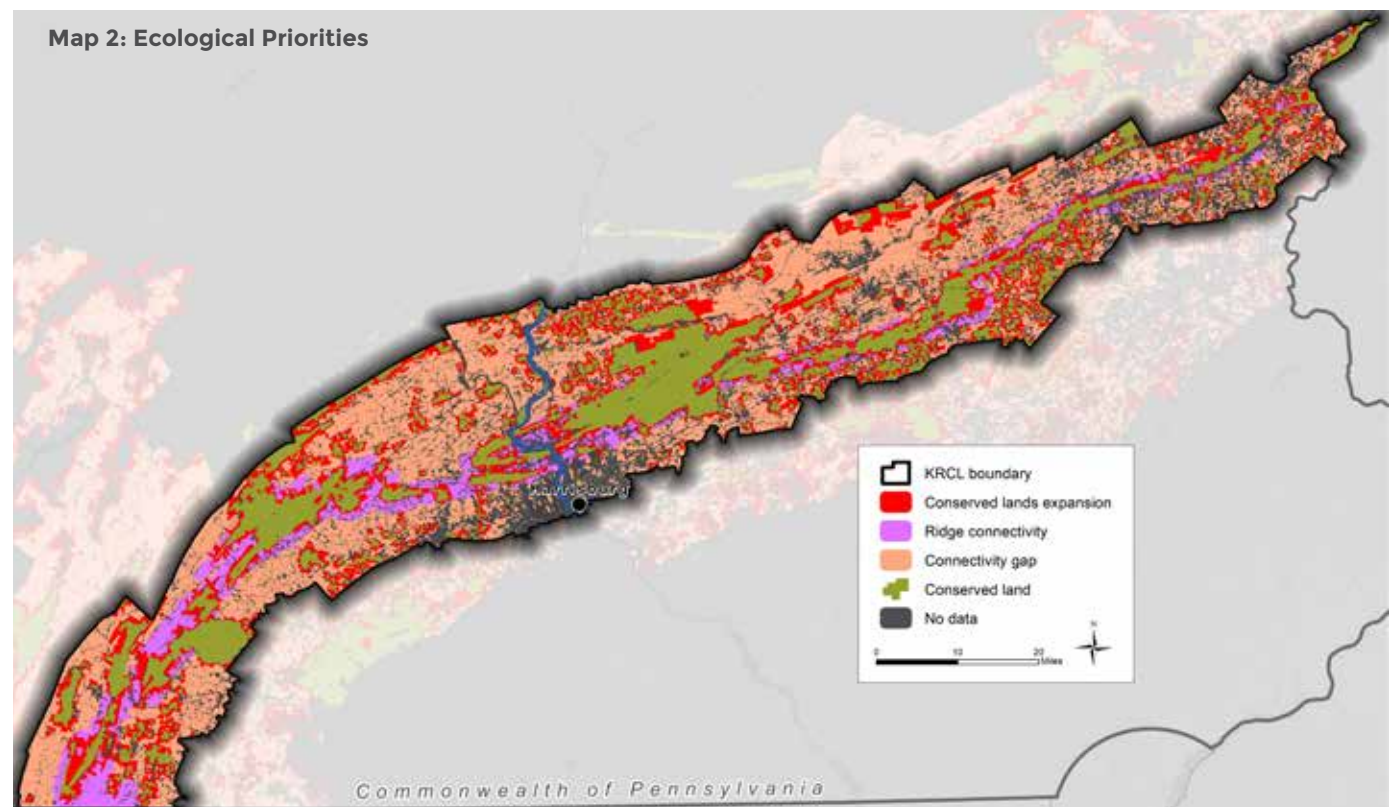
The 2019 Kittatinny Ridge Landscape Parcel Assessment Overview explains the collaboration and methods for generating these ecological priorities:

The [former] Kittatinny Coalition, through Audubon [Mid-Atlantic] and The Nature Conservancy, partnered with the Shippensburg University Center for Land Use and Sustainability (CLUS) to complete a parcel assessment to guide conservation efforts in the Kittatinny Ridge Landscape (KRL). Incorporating resilient areas in Pennsylvania's Tuscarora Mountains, Schuylkill Ridges, and the Poconos, the assessment's geographic extent included the entirety of counties within the KRL: Berks, Carbon, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Lebanon, Lehigh, Monroe, Northampton, Perry, and Schuylkill. CLUS obtained 2019 parcel datasets directly from each county in late 2019. Only parcels greater than 10 acres were included for conservation consideration, and individual county datasets were merged together. Rather than quantitatively ranking parcels in relation to each other, new parcel attributes related to conservation values were calculated (see list of fields below) so that each Kittatinny Coalition partner can assess parcels based on metrics most relevant to their priorities.

Table 1: Parcel Assessment Conservation Categories	
<b>Conserved Lands Expansion</b>	>75% undeveloped land cover AND are within 50m of already conserved land
<b>Connectivity Gap</b>	>75% undeveloped land cover AND are >50m from already conserved land
<b>Low-Priority</b>	<75% undeveloped land cover
<b>Already Conserved</b>	Conserved lands are defined as Federal, State, Private (Land Trust), Conservation Easement, and Farmland Preservation Easement records in PALTA's "PA Conserved Land" datasets, plus records with a federal or state owner name based on county parcel attributes. Note that this category includes Fort Indiantown Gap and Letterkenny Army Depot and excludes local government / municipal lands.

Each parcel > 10 acres was assigned to one of the conservation categories in Table 1:

Map 2 shows the result of the 2019 Kittatinny Ridge Landscape Parcel Assessment Overview with the conserved lands expansion parcels and connectivity gap parcels being the highest priority areas. This analysis set out to transfer those priorities into a scoring mechanism that further elevates certain parcels that are part of the dominant ecological feature of the landscape – the Kittatinny Ridge.



Understanding the conserved lands expansion parcels are the highest priority, this analysis made no adjustment to them. However, this analysis identified all connectivity gap parcels that are part of the Kittatinny Ridge core area and elevated them to be known as ridge connectivity parcels, while leaving the remaining connectivity gap parcels unaltered. Considering the ecological importance of the core ridge area, this analysis identified that there was enough ecological value to raise the parcels therein to a higher level than other connectivity gap parcels outside the core ridge area. The ridge connectivity area represents parcels that could play a significant role, if protected, in connecting existing conserved lands along the ridge. This would ensure a more in-tact corridor for wildlife and a more resilient high elevation ecosystem to further support the ridge's local, regional, and international recognition. Map 2 shows the parcel priorities which reflect the ridge connectivity parcels. With the addition of the ridge connectivity component, the analysis process then transitioned all parcels in the KRCL to a scoring mechanism, which is outlined in the Table 1 and represented visually in Figure 1.

Figure 1: Final ecological score

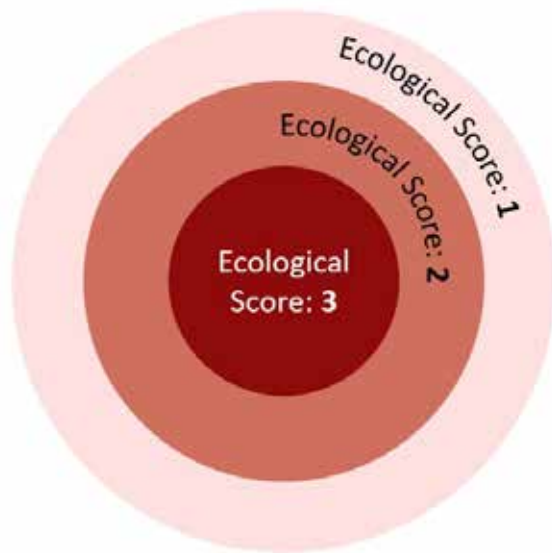
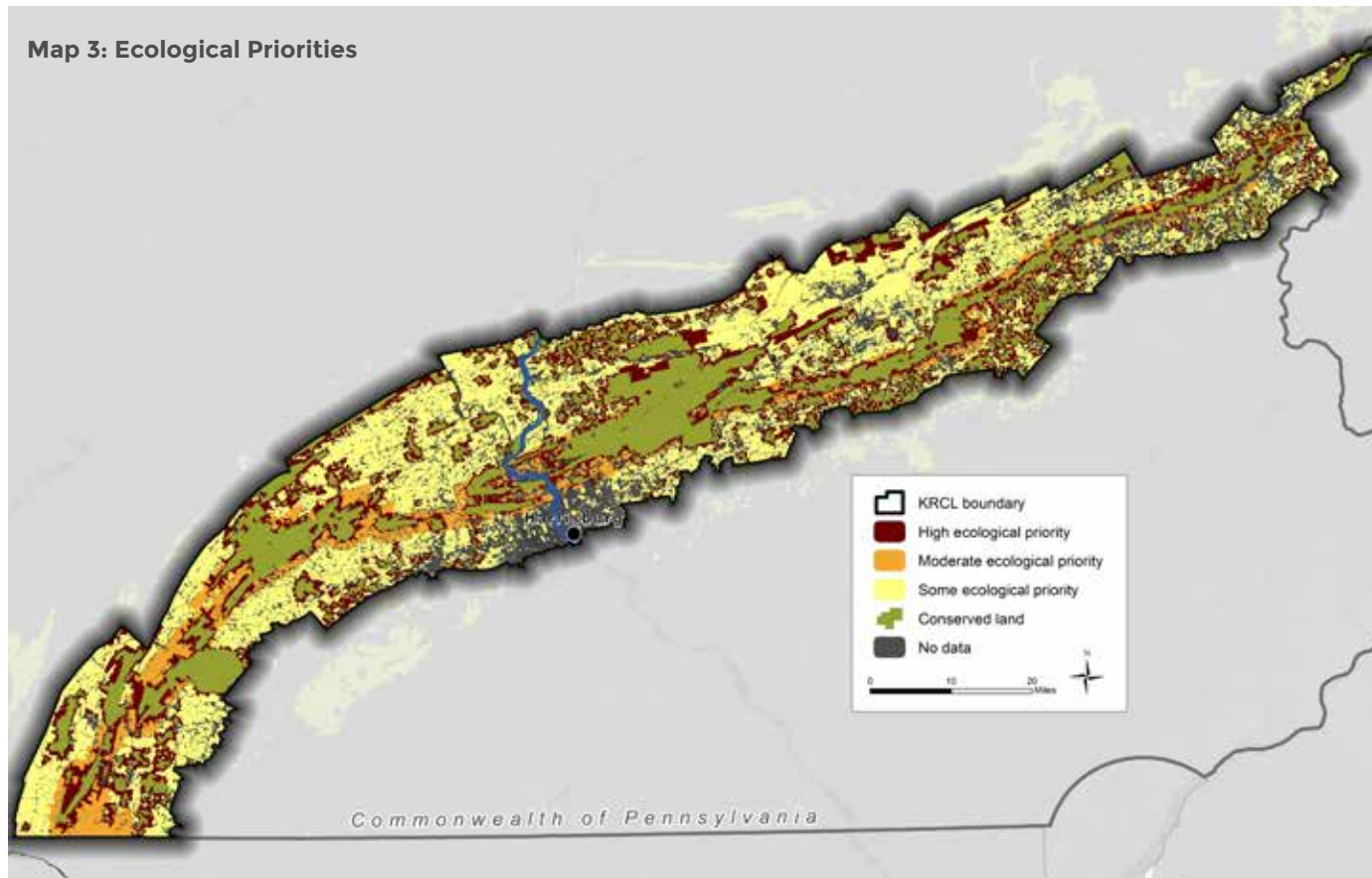


Table 1: Ecological Scoring Mechanism		
Ecological Priority	Parcel Category	Ecological Score
High	Conserved lands expansion	3
Moderate	Ridge connectivity	2
Some	Connectivity gap	1

These ecological scores were then transposed to the spatial distribution of parcels in the KRCL. Map 3 represents these ecological scores. Spatially, these scores represent the areas of highest ecological priority in the KRCL.



Map 3: Ecological Priorities



## DEMOGRAPHIC DIVERSITY

Cultivating community support for conservation, a love for the outdoors, and a culture of stewardship and land protection is crucial to accomplish the conservation goals in this plan. The work of conserving natural places intersects with and affects human communities in ways that create benefits and burdens. Many marginalized groups, including BIPOC (Black, Indigenous, People of Color) individuals, those with disabilities, lower-income households, youth, and older adults, have often been directly or indirectly excluded from participating in defining, protecting, enjoying, and stewarding the natural systems that exist. The impact that population growth and development have on the KRCL can be dramatic, and ultimately impact sustainable development efforts, cultural assets, and the protection of natural resources. As a result, both the social and biotic communities lose when any populations are excluded from the conservation conversations. A core

element of this Conservation Plan is to provide a platform for all communities to participate, share ideas, and be active members in the future of land conservation in the KRCL.

To identify areas within the KRCL that may represent communities that have been underserved and underrepresented in conservation efforts thus far, this analysis established four criteria to inform land protection opportunities to include, listen, and incorporate a diversity of voices and backgrounds.

- People of color
- Low-income
- Disability
- Age under 5 and age over 64

This study recognizes many more variables could be used to represent a demographic analysis. However, given the scale of this Conservation Plan, these four criteria have been considered the most appropriate at this time. Given the breadth and resolution of available data, the Census Bureau was determined to be the most appropriate agency to collect information on these criteria. To achieve the highest spatial resolution and accuracy, the census block group was determined to be the most appropriate scale to inform this analysis. This scale provides a balance of spatial detail and data availability.

Several criteria selected for the KRCL analysis are also included in the US Environmental Protection Agency's (EPA) Socioeconomic Indicators as part of the Environmental Justice Screening and Mapping Tool (EJScreen). EJScreen is a tool "that provides EPA with a nationally consistent dataset and approach for combining environmental and demographic socioeconomic indicators." Part of the EJScreen tool includes 7 socioeconomic indicators including (1) people of color, (2) low-income, (3) unemployment rate, (4) limited English speaking, (5) less than high school education, (6) under age 5, and (7) over age 64. Had this analysis been aware of EJScreen from the start, it would have considered more of these indicators.

## **PEOPLE OF COLOR**

The Census Bureau describes race as the following:

The U.S. Census Bureau collects race data in accordance with guidelines provided by the U.S. Office of Management and Budget (OMB), and these data are based on self-identification. The racial categories included in the census questionnaire generally reflect a social definition of race recognized in this country and not an attempt to define race biologically, anthropologically, or genetically. In addition, it is recognized that the categories of the race item include racial and national

origin or sociocultural groups. People may choose to report more than one race to indicate their racial mixture, such as “American Indian” and “White.” People who identify their origin as Hispanic, Latino, or Spanish may be of any race. OMB requires that race data be collected for a minimum of five groups: White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander. OMB permits the Census Bureau to also use a sixth category - Some Other Race. Respondents may report more than one race.<sup>4</sup> [For a description of the five race categories required by the Office of Management and Budget, visit the Census Bureau’s quick facts on race.

Given this description and the goal of including groups that have historically been excluded from natural resource conservation discussions, it was decided to use non-white figures for this analysis. To accomplish this, all data for white residents were subtracted from the total population to determine the non-white populations in all census block groups. The decision to use non-white is also in line with the EJSscreen people of color indicator definition:

The percent of individuals in a block group who list their racial status as a race other than white alone and/or list their ethnicity as Hispanic or Latino. That is, all people other than non-Hispanic white-alone individuals. The word “alone” in this case indicates that the person is of a single race, not multiracial.

Once the non-white residents were calculated for all census block groups, each one was then normalized across the landscape using the appropriate county average. In the example shown in Table 2, both census block groups are in Cumberland County, which has a non-white average of 13%. So, if a census block group has a higher percentage of non-white residents than the county average it was also included in this analysis; however, if the census block group has a smaller percentage, it did not fit the criteria to be included. Pink areas in Map 4 show the distribution of census block groups that were further included in this analysis based on the above-mentioned example.

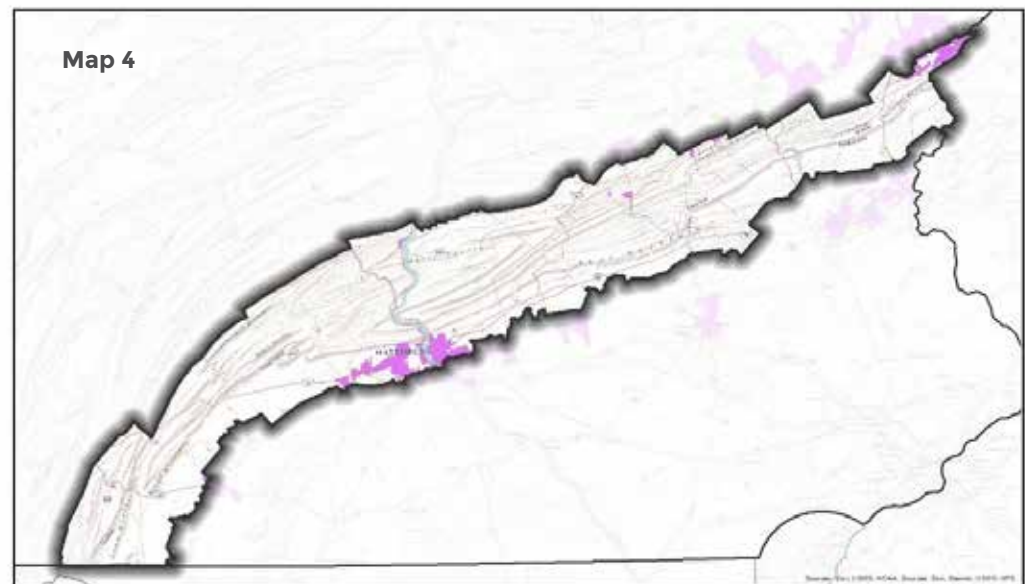


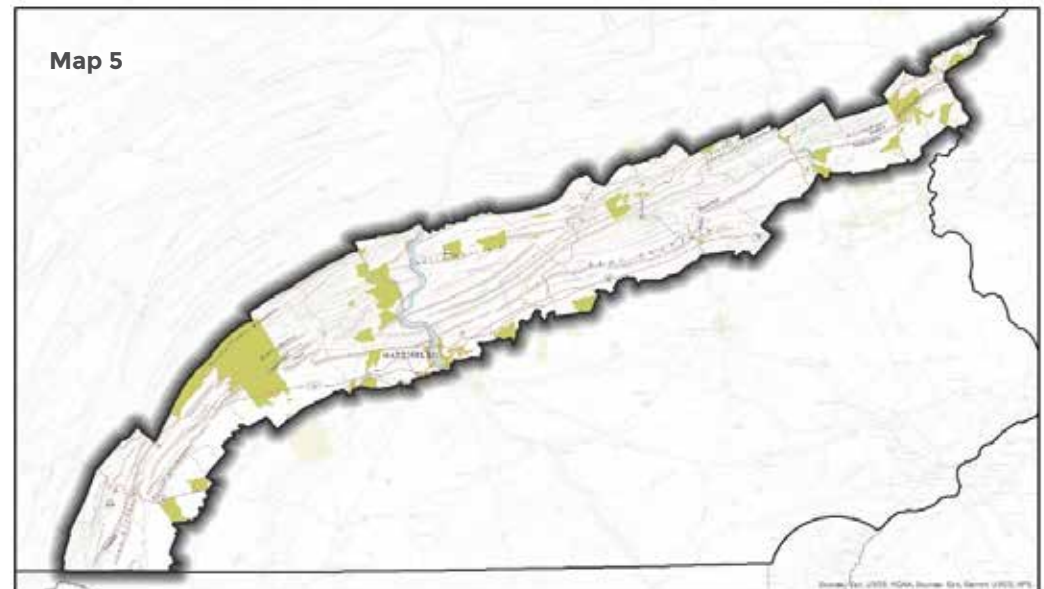


Table 2: Example calculation of people of color figures					
Census Block Group	Total population	Total non-white	Percent non-white	Cumberland County: Percent non-white	Fit criteria for further analysis
420210118052	1,044	355	34%	13%	Yes
420410113054	886	54	6%	13%	No

## LOW INCOME

The Census Bureau describes poverty status as the following:

The data on poverty status of households were derived from answers to the income questions in the Census. Since poverty is defined at the family level and not the household level, the poverty status of the household is determined by the poverty status of the householder. Households are classified as poor when the total income of the householder's family is below the appropriate poverty threshold (For non family householders, their own income is compared with the appropriate threshold). The income of people living in the household who are unrelated to the householder is not considered when determining the poverty status of a household, nor does their presence affect the family size in determining the appropriate threshold.<sup>5</sup>



With this definition in mind, this analysis used the total household income in the past 12 months below the poverty level, normalized across the county averages, as the criteria for inclusion in the poverty category. Table 3 shows an example of

Table 3: Example calculation of poverty figures					
Census Block Group	Total population	Total poverty	Percent poverty	Perry County: Percent poverty	Fit criteria for further analysis
420990306021	1,848	552	7.8%	8.7%	No
420990306022	1,288	195	9.7%	8.7%	Yes

the census block group poverty rate relative to the county average and whether it is included in further analysis. Areas in olive green in Map 5 show the distribution of census block groups that were further included in this analysis based on the above-mentioned example.

## DISABILITY

The Census Bureau describes disability status as the following:

In an attempt to capture a variety of characteristics that encompass the definition of disability, the ACS identifies serious difficulty with four basic areas of functioning – hearing, vision, cognition, and ambulation. These functional limitations are supplemented by questions in the census about difficulties with selected activities from the Katz Activities of Daily Living (ADL) and Lawton Instrumental Activities of Daily Living (IADL) scales, namely difficulty bathing and dressing, and difficulty performing errands such as shopping. Overall, the ACS 63 attempts to capture six aspects of disability, which can be used together to create an overall disability measure, or independently to identify populations with specific disability types.

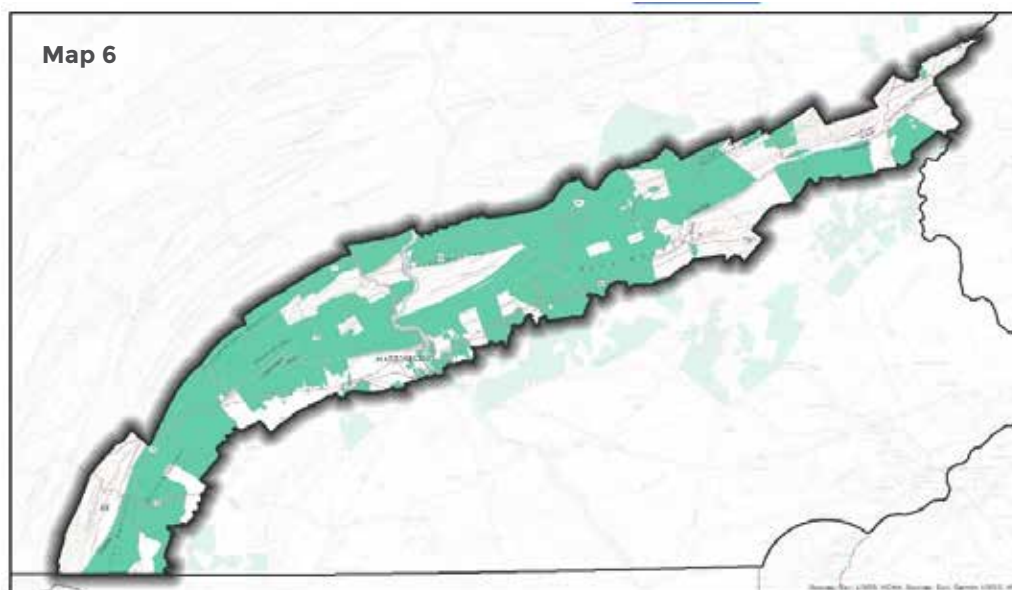
Figures for the “four basic areas of functioning” were aggregated across all ages and summed to create a total disability number for census block groups in the KRCL. These were then normalized across the county averages, which determined whether the census block group met the criteria for inclusion in the disability category. Table 4 shows an example of the census block group disability rate relative to the county average and whether it is included in any further analysis. Areas in teal in Map 6 show the distribution of census block groups that were further included in this analysis based on the above-mentioned example.

Table 4: Example calculation of disability figures					
Census Block Group	Total population	Total disability	Disability rate	Schuylkill County: Percent disability	Fit criteria for further analysis
421070034003	1,637	255	15%	18%	No
421070035001	1,080	219	20%	18%	Yes

## AGE

The age variable for this analysis was chosen with younger and older populations in mind, specifically children and aging populations. Together, both categories represent groups of people that have often been overlooked as part of the conservation planning process.

Determining the specific thresholds that represent young and old populations was a result of available data from the Census Bureau, which describes children as, “all persons under 18 years, excluding people who maintain households, families, or subfamilies as a reference person or spouse.”<sup>7</sup> While it is difficult to identify a clear description of older/aging population from the Census Bureau, the agency has a clear delineation in its’ data collection methods at age 65 and over. For this reason, this analysis uses figures on age over 64 as the working definition. Both groups – young and old – have been included and, for the purposes of this document, are herein referred to as the age criteria.



Figures for both age categories were aggregated for all census block groups and normalized across the respective county averages. It was decided that the presence of either (1) a higher- than-average young or (2) a higher-than-average old

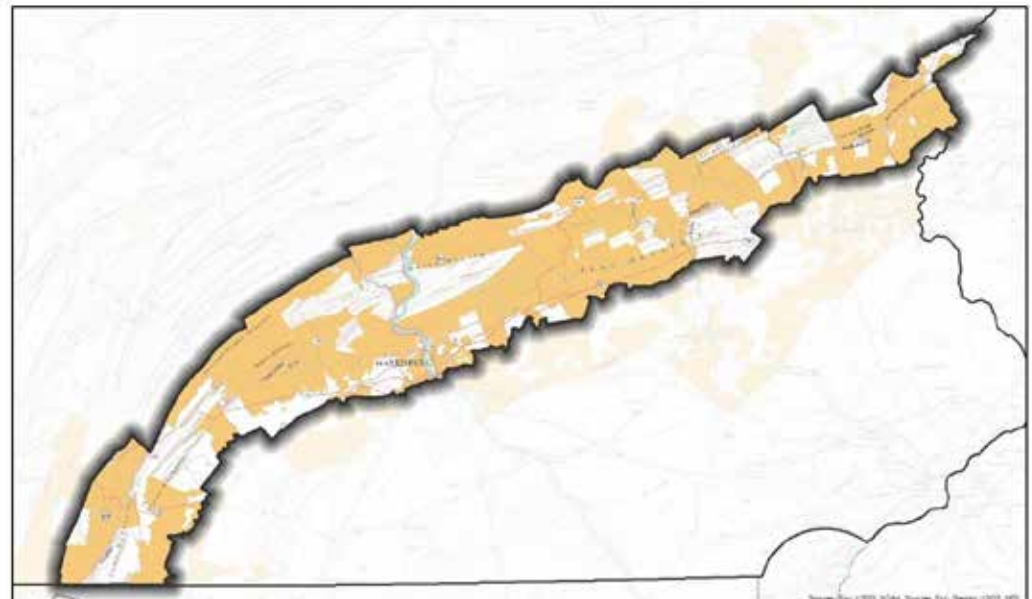


population was reason for further inclusion in this analysis. It should be clarified that the presence of higher-than-average figures for both young and old variables was not required for further inclusion in this analysis. Table 5 shows a graphical example of the inclusion criteria based on both age categories. Map 7 show the distribution of census block groups in orange that were further included in this analysis based on the above-mentioned example.

Census Block Group	Total population	Total age <18	Age <18 rate	Berks County: Percent age >18	Total age 65+	Age 65+ rate	Berks County: Percent age 65+	Fit criteria for further analysis
420110138003	1,357	393	29.0%	22.4%	100	7.4%	17.3%	Yes
420110101002	2,322	640	27.6%	22.4%	253	10.9%	17.3%	Yes
420110103021	1,997	416	20.8%	22.4%	323	16.2%	17.3%	No
420110101003	1,737	550	31.7%	22.4%	325	18.7%	17.3%	Yes
420110138001	964	157	16.3%	22.4%	220	22.8%	17.3%	Yes

#### DEMOGRAPHIC DIVERSITY CO-OCCURRENCE

Each of these demographic criteria provide great insight into the spatial distribution of individuals and communities that have been potentially marginalized, overlooked, and excluded from past conservation efforts. Armed with this information, more targeted outreach and communication can be done to increase representation by individuals and organizations that can add value to localized conservation efforts in different ways. Equally, conservation projects can add value to other local initiatives. This reciprocal opportunity



could create circumstances that have benefits far beyond traditional conservation efforts and add value to local communities while increasing representation in the conservation realm. Furthermore, fostering relationships with new potential partners can reveal common goals across disciplines resulting in a net benefit for natural and social resources.

This analysis set out to identify areas where these potentially overlooked and marginalized communities overlap, also known as areas of co-occurrence. This co-occurrence has the power to recognize communities that may have been more overlooked than others; and, ultimately, work to acknowledge and rectify the long-overdue inclusion by residents and organizations that deserve to participate in the conservation planning for the KRCL.

To accomplish this co-occurrence, it's easier to initially think of the four demographic criteria as distinct themes, which are displayed in Figure 2. The co-occurrence of these four themes develops when the themes are overlapped with one another as seen in Figure 3. The values in Figure 4 represent the varieties of demographic co-occurrence. According to this analysis, areas where all four criteria overlap provide the greatest opportunity for increasing representation. However, this analysis does not exclude the remaining values recognizing that where three, two or one criteria exist spatially still offer important inclusive conservation opportunities. With that in mind, Figure 5 shows the method for grouping the co-occurrence values to define the landscape score for increasing representation. Three or more co-occurrences represent the largest opportunities for increasing representation; areas where two co-occurrences are found represent moderate opportunities for increasing representation; and where individual demographic criteria exist across the landscape represent some opportunities for increasing representation. These co-occurrence scores are shown in Figure 6.

FIGURE 2

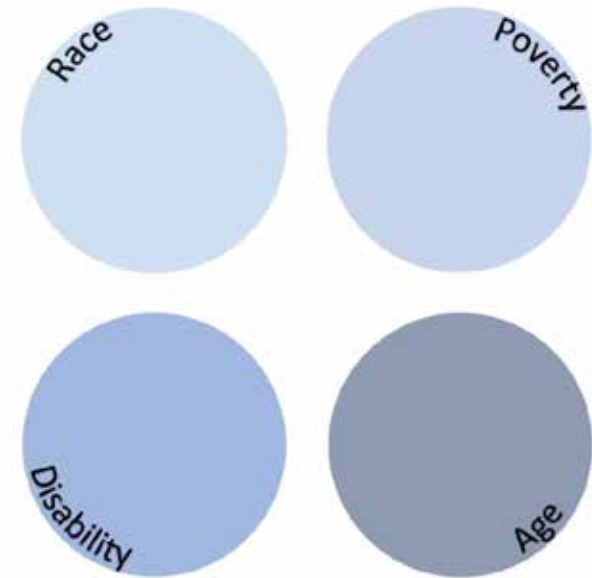


Figure 3: Co-occurrence of social themes

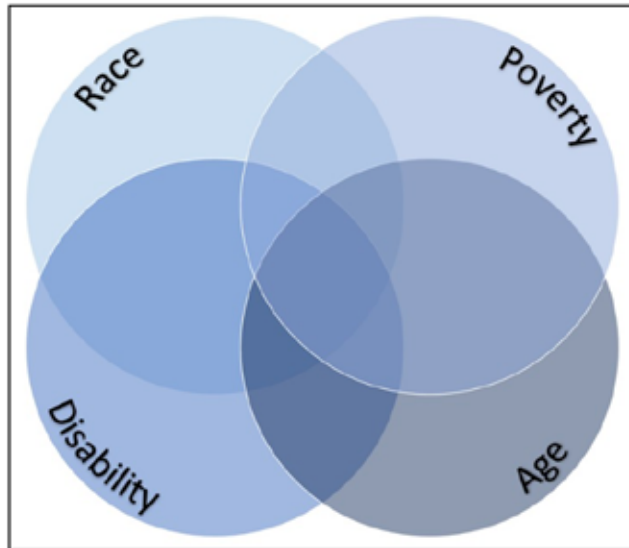


Figure 4: Varieties of co-occurrence

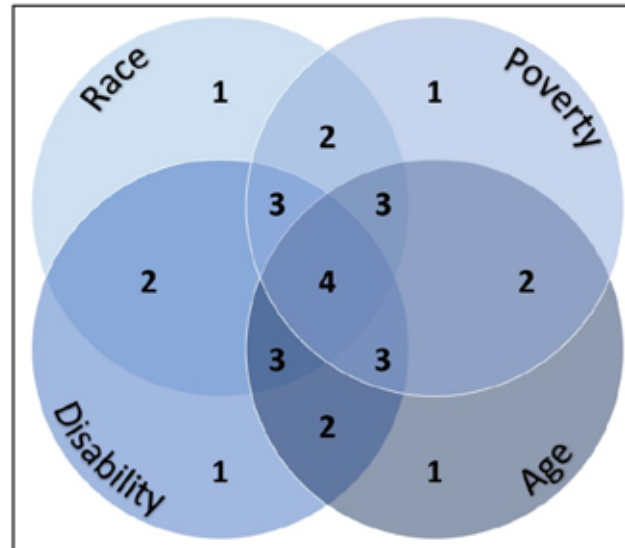


Figure 6: Final social score

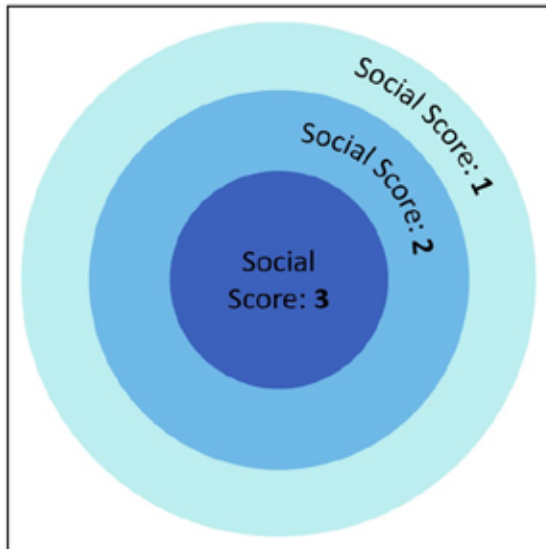


Figure 5: Method for co-occurrence scoring

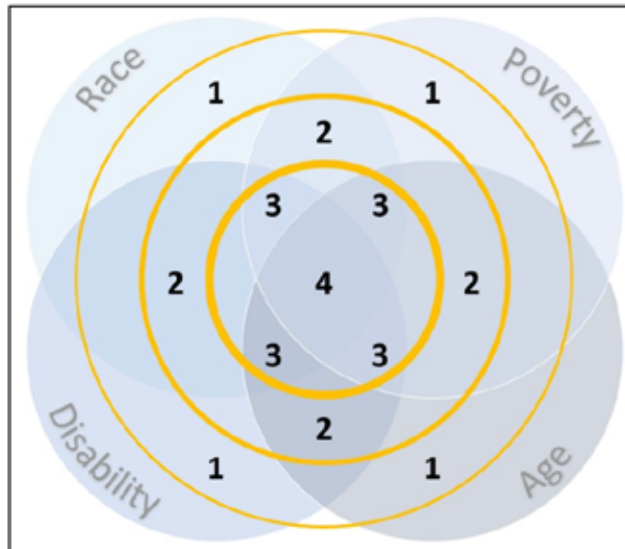




Figure 7 shows the spatial distribution of the four social criteria across the landscape. These four areas are co-occurred using the above-mentioned methodology and culminate in the spatial landscape score shown in Map 9.

## RECREATIONAL ACCESS

On behalf of the Pennsylvania Department of Conservation and Natural Resources, the Trust for Public Land (TPL) produced several datasets to support Pennsylvania's 2020-2024 Statewide Comprehensive Outdoor Recreation Plan (SCORP). These datasets are listed and described below:

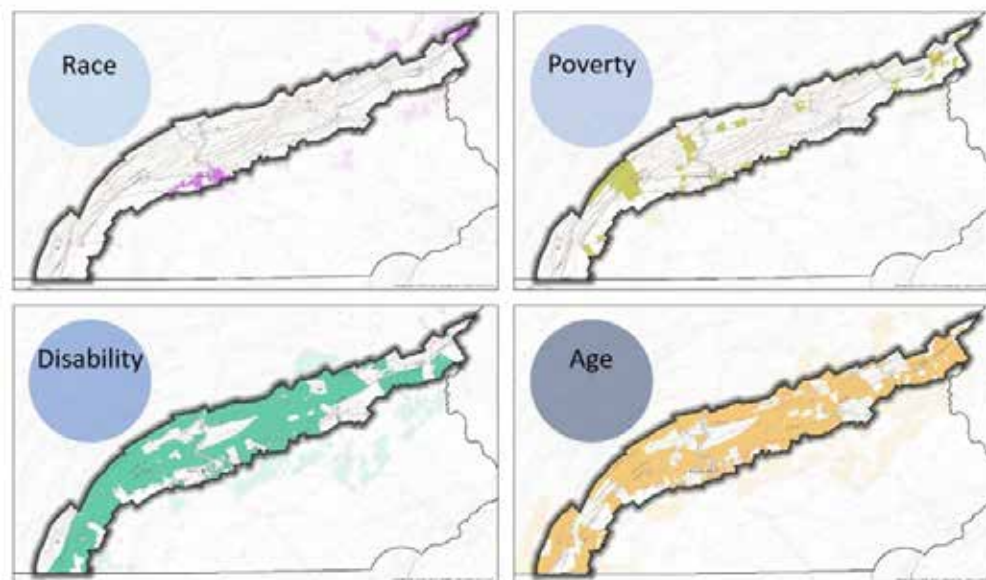
### Outdoor Recreation Access: 10-Minute Drive to Trailheads

This dataset can help inform trail and trailhead planning by identifying areas with the great need for trail access opportunities. It calculates 10-minute drive "service areas" around trailheads in Pennsylvania. Regions outside these service areas are defined as low, medium, or high need based on population density, youth density, and low-income households

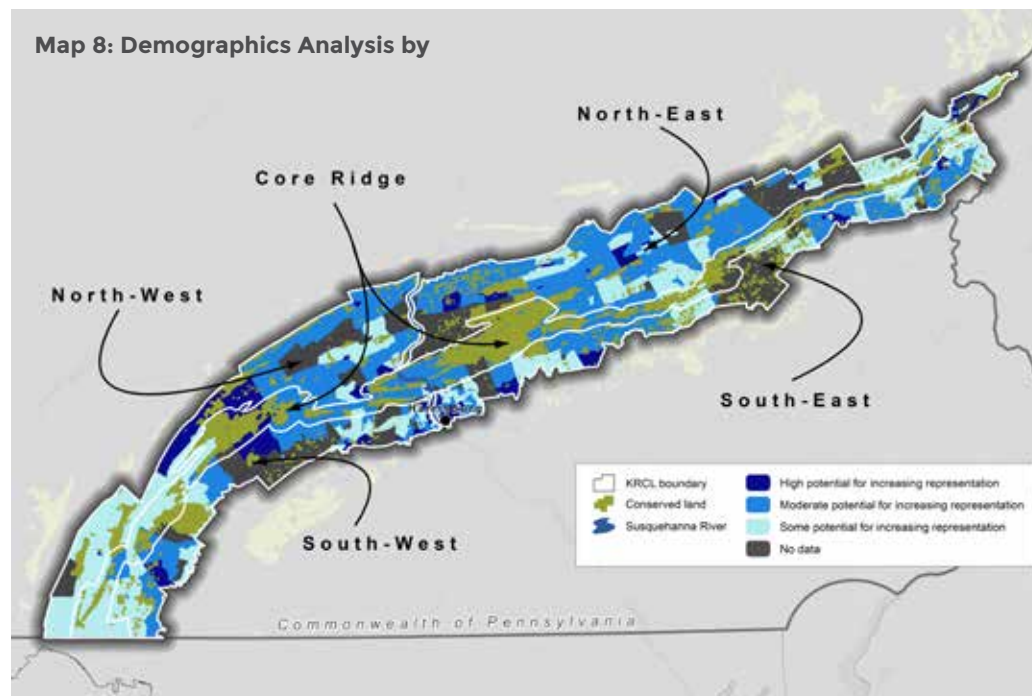
### Outdoor Recreation Access: 10-minute Drive to Water Access

This dataset can help inform fishing and boating access planning by identifying areas with the greatest need for water access opportunities. It calculates 10-minute drive "service areas" around

Figure 7: Spatial criteria



Map 8: Demographics Analysis by



fishing and boating access points in Pennsylvania. Regions outside these service areas are defined as low, medium, or high need based on population density, youth density, and low-income households

#### Outdoor Recreation Access: 10-Minute Walk [to Parks]

This dataset can help inform park and trailhead planning by identifying areas with the greatest need for outdoor recreation opportunities. It calculates 10-minute walk “service areas” around open-access lands and trailheads in Pennsylvania. Regions outside these service areas are defined as low, medium, or high need based on population density, youth density, and low-income households.

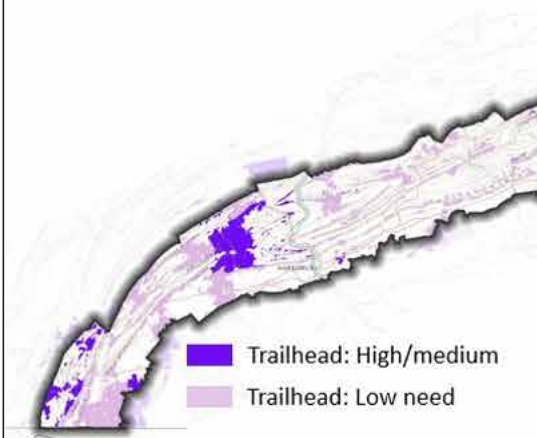
Ultimately, where these three recreational themes – trailhead access, water access, park access – coincide would result in the areas of greatest need for public recreational access points. Like the above Demographic Diversity section, this landscape-scale recreational needs analysis is a co-occurrence of these three recreational themes and is visually represented in Figure 8.

Furthermore, as a way of placing more emphasis on areas with a generally higher needs, this landscape-scale analysis aggregated high/medium needs while leaving low needs independent. The spatial distribution of these needs, relative to the recreational theme, are shown in Maps 10, 11, and 12.

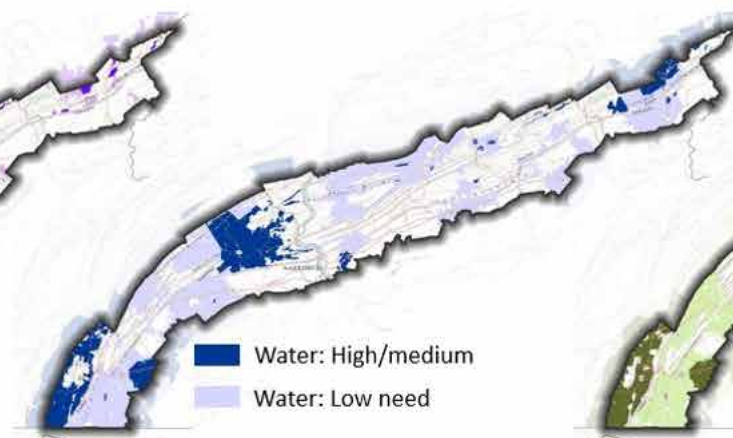
Figure 8: Recreational co-occurrence



Map 10: Trailhead access



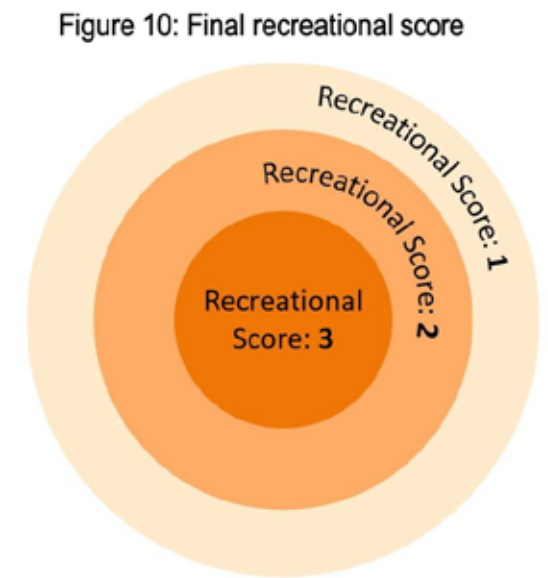
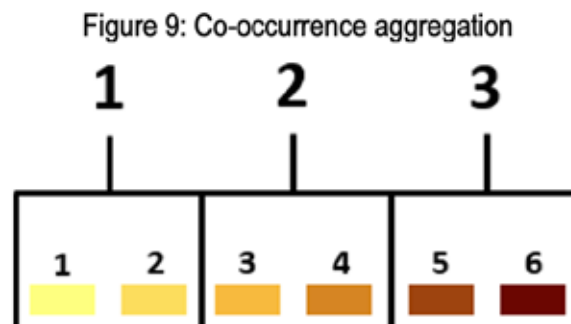
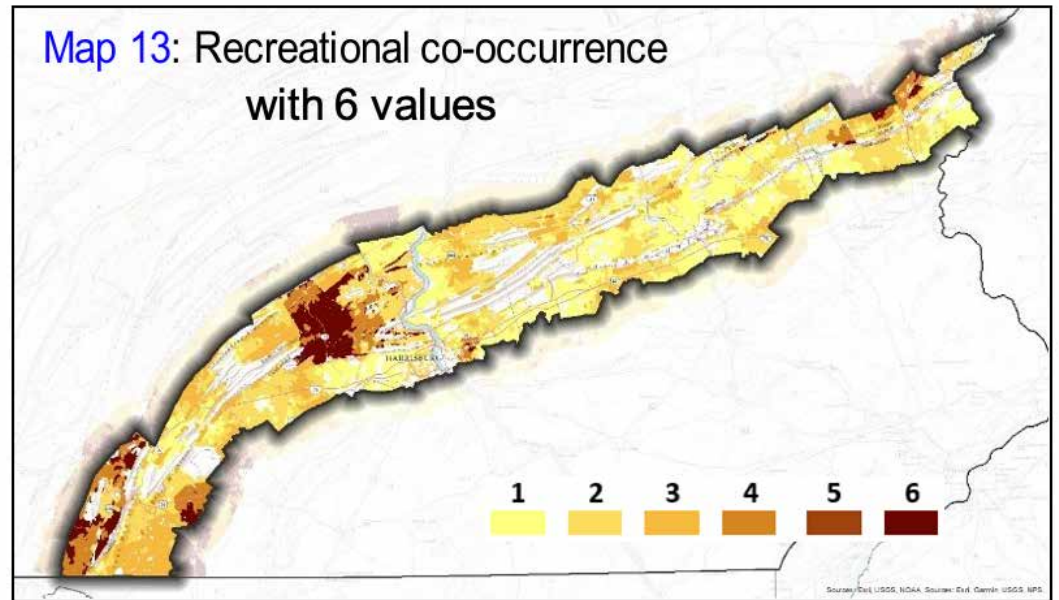
Map 11: Water access need



Map 12: Park access need



Each of these themes were then co-occurred to identify areas of overlapping need for public recreational access points. However, because each theme has two value levels – low need and high/medium need – the resulting co-occurrence output contains 6 total values, which is seen in Map 13. In this map, #1's represents low need areas from one recreational theme. On the other end of the spectrum, #6's represent high/medium need areas for all three recreational themes. The remaining #2-5's represents some variation of high/medium and low need areas across the three recreational themes. As written, these values were unable to be incorporated into the full landscape-scale analysis without an additional aggregation; this is needed to ensure these recreational needs use the same scale as the other themes. To accomplish this and maintain the same landscape values used in the two previously-discussed sections – ECOLOGICAL PRIORITY and DEMOGRAPHIC DIVERSITY – the aggregation shown in Figure 9 was completed. In this, values 1 & 2 were combined into a landscape recreational needs score of 1; values 3 & 4 were combined into a landscape recreational needs score of 2; and values 5 & 6 were combined into a landscape recreational needs score of 3. Figure 10 provides a visual representation of the final recreational score.





The aggregation process and culminating recreational score was then applied spatially to the landscape, which is shown in Map 14.

### LANDSCAPE-SCALE CO-OCCURRENCE

With the three themes analyzed separately the culminating landscape-scale co-occurrence analysis began. This process, which is shown in Figures 11 and 12, analyzed the spatial distribution and co-occurrence of the three themes (ecological priorities, social inclusion, and recreational access) using three landscape values (3, 2, 1). The complexity of this co-occurrence results in values ranging from 1-9, which correspond to different combinations of overlapping themes. Examples of this complexity are explained below and shown in Table 6.

- Landscape values of 1 are areas where one theme exists with a landscape score of 1
  - i.e., 1 recreational access score
- Landscape values of 2 could either be:

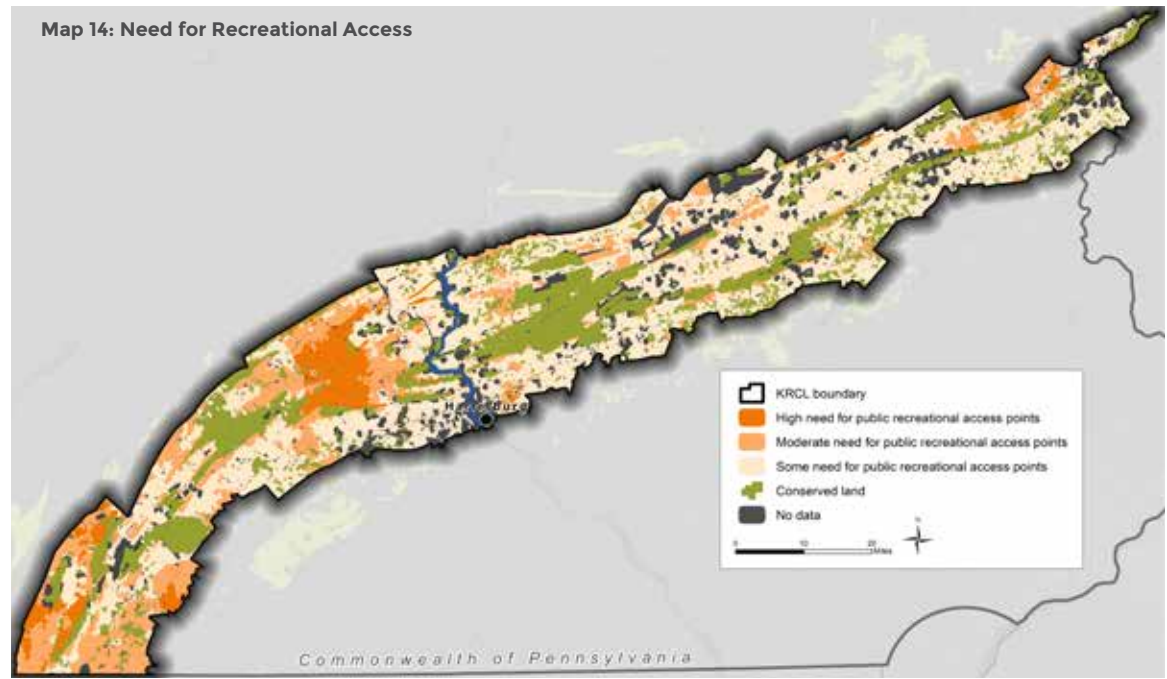


Figure 1: Landscape Themes and Scores

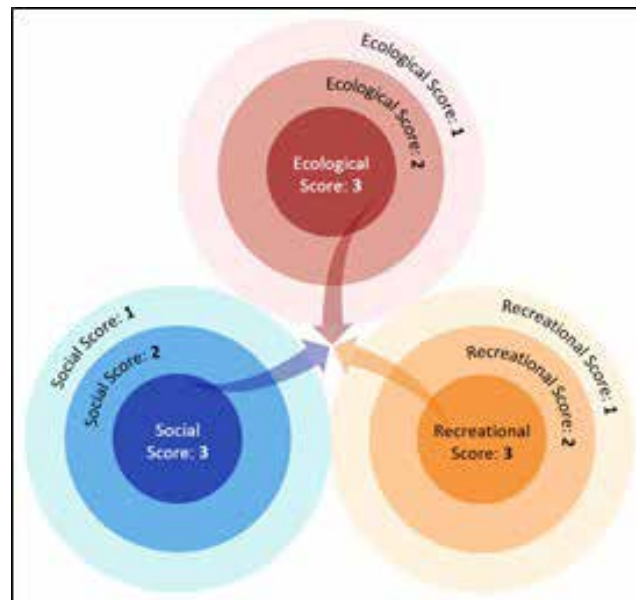
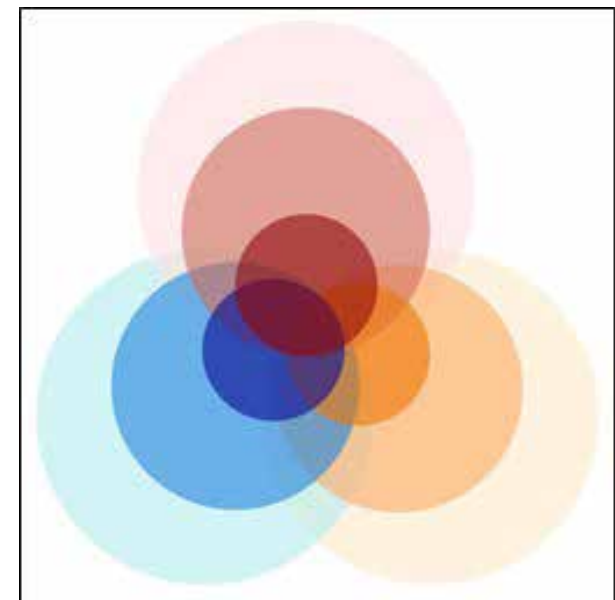


Figure 2: Co-occurrence of Themes



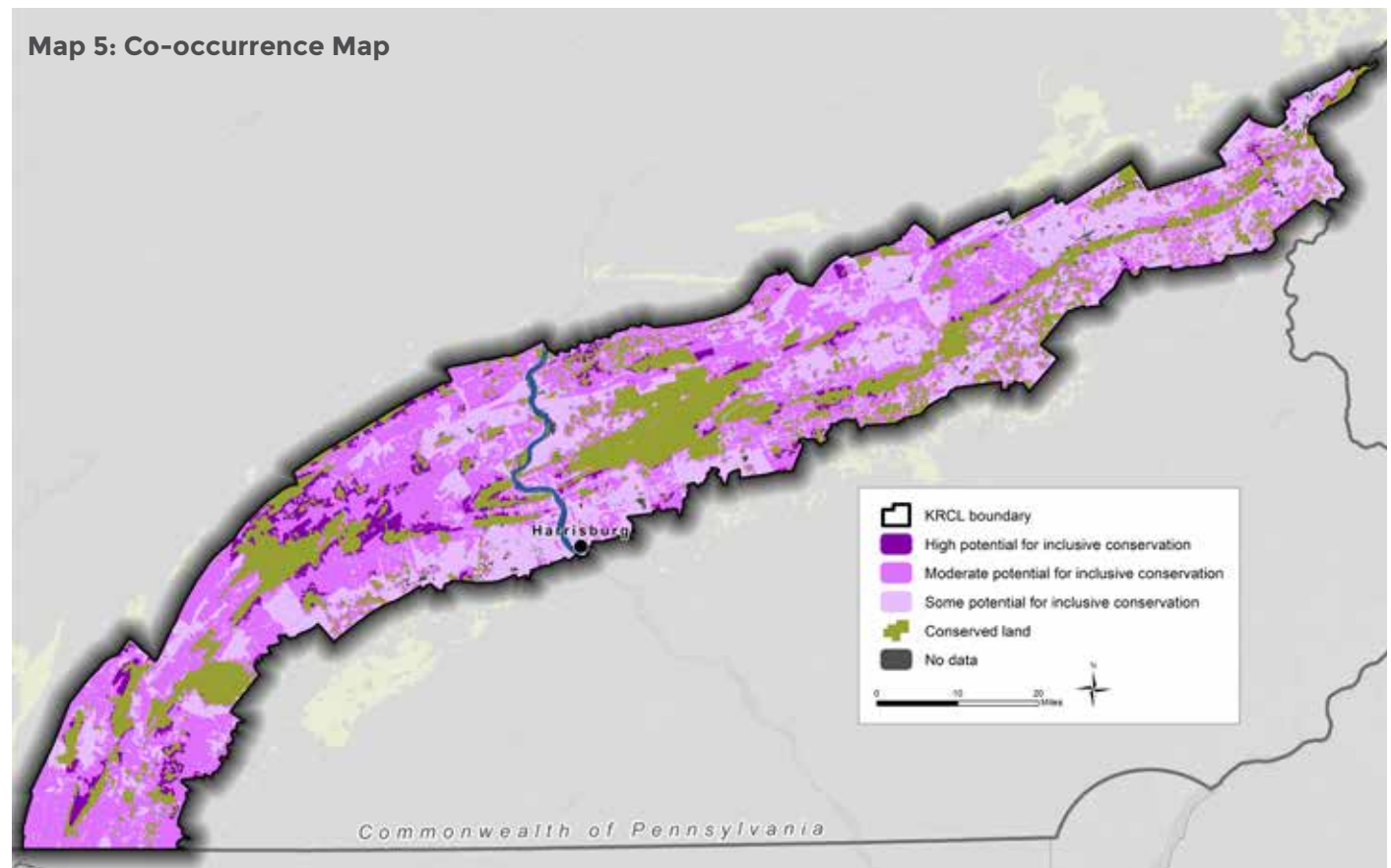
- Areas where one theme exists with a landscape score of 2
  - i.e., 2 social inclusion score
- Areas where two themes exist both with landscape scores of 1
  - i.e., 1 ecological priority score + 1 recreational access score

Table 6: Example of landscape co-occurrence scoring combinations

Ecological priorities	Demographic diversity	Recreational access	Co-occurrence Score
3	3	3	9
2	2	2	
1	1	1	
3	3	3	8
2	2	2	
1	1	1	
3	3	3	7
2	2	2	
1	1	1	
3	3	3	6
2	2	2	
1	1	1	
3	3	3	6
2	2	2	
1	1	1	
3	3	3	5
2	2	2	
1	1	1	
3	3	3	5
2	2	2	
1	1	1	

Because of the complexity of the above-mentioned 1-9 values and how they are distributed spatially across the KRCL, this analysis conducted one final aggregation to simplify the output and make it more approachable and understandable. To accomplish this and maintain the same landscape values used in the three independent and previously discussed sections the aggregation shown in Figure 13 was completed. In this, values 1-2-3 were combined into a culminating landscape score of 1; values 4-5-6 were combined into a culminating landscape score of 2; and values 7-8-9 were combined into a culminating landscape score of 3. Figure 14 provides a visual representation of the final landscape score.

Ultimately, areas with a final landscape score of 3 represent the highest potential for inclusive conservation across the three themes of ecological priority, demographic diversity, and recreational access; areas with a landscape score of 2 represent moderate potential for inclusive conservation; and areas with a landscape score of 1 represent some potential for inclusive conservation. These areas are shown in Map 15.





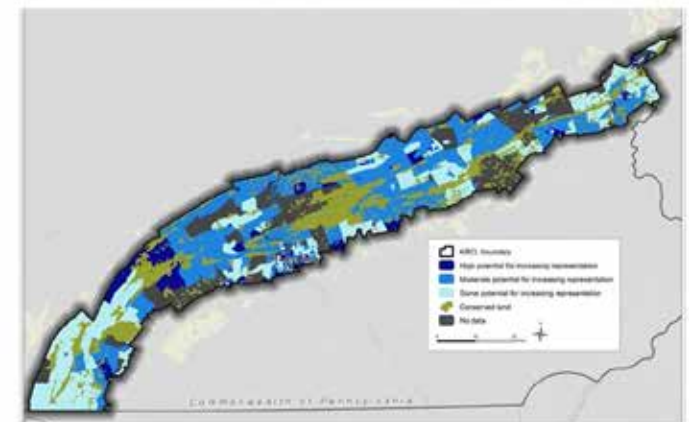
## INITIAL CONCLUSIONS

Given the landscape analysis across the KRCL, certain takeaways present themselves. It is helpful, initially, to explore the three themes independently before drawing conclusions from the culminating co-occurrence. A more in-depth analysis and breakdown of the co-occurrence analysis is found in the Subregion Section.

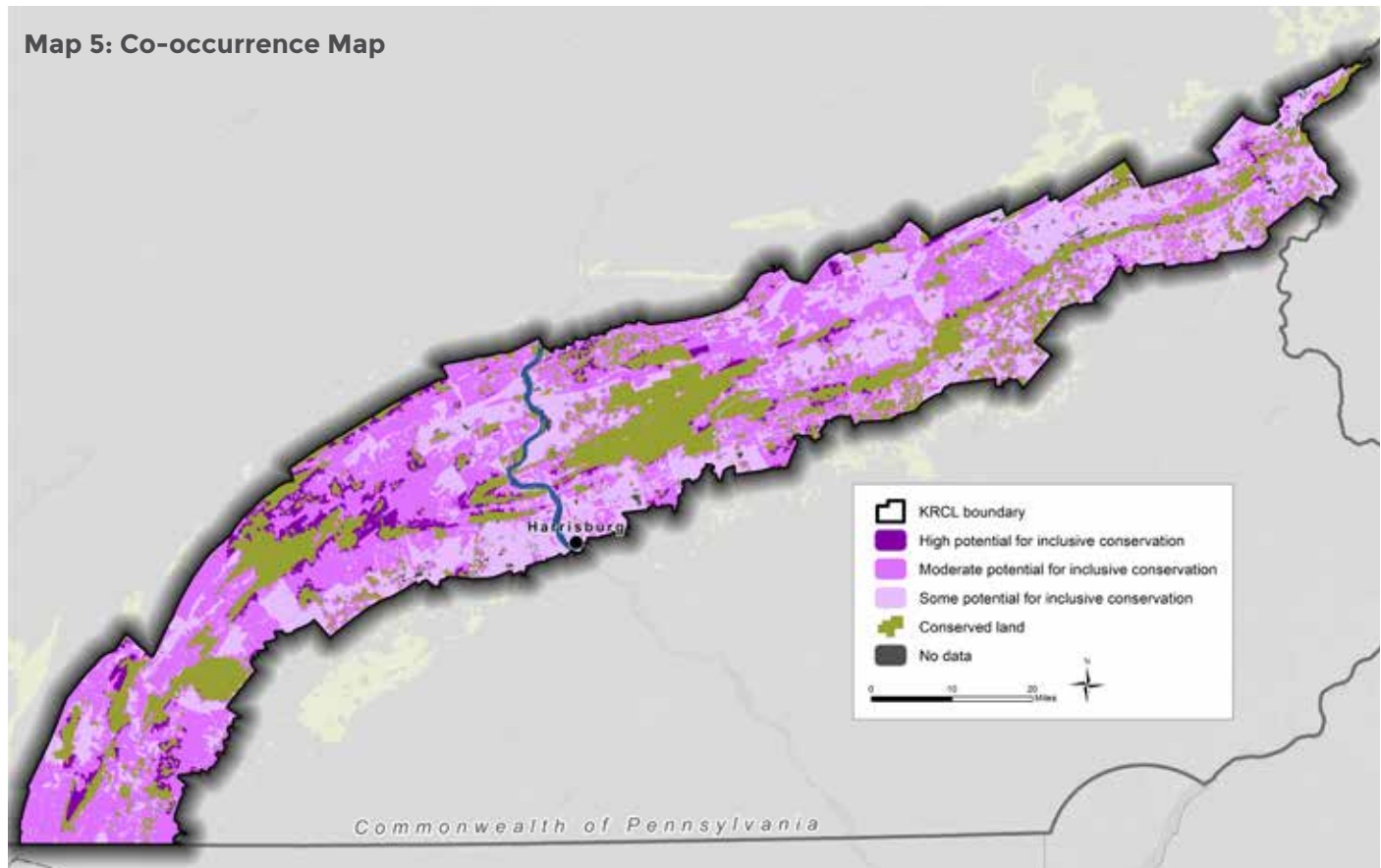
When examining the distribution of ecological priorities in the map series to the right, the highest priority areas are scattered across the landscape with little visible pattern. There are high ecological priority areas along the core ridge as well as areas in lower elevations. Additionally, high priority areas exist in the northeast all the way through to the southwest of the project area. Because of this, it's clear to see that from an ecological perspective, high impact conservation efforts are needed throughout the KRCL at all elevations. For partners working along the core ridge, there are additional opportunities considering the secondary ecological priority level. A more in-depth breakdown of these results exists in the Subregion Section.

From the demographic diversity perspective of increasing representation in the conservation process, high and moderate opportunities exist in the center half of the project area, without any significant pattern. However, some high areas of opportunity clearly exist in the western half of the project area, with other smaller areas scattered around. A more in-depth analysis of these results exists within the Subregion Section that further breaks down these results.

When looking at the need for public recreational access points, there are clear pockets of high need with other large swaths of low need. To better understand these results, a more in-depth explanation and breakdown exists in the Subregion Section.



When we look at the co-occurrence of the three themes, Map 15, there is high potential for inclusive conservation in the western half of the KRCL. Upon closer examination, there are smaller areas of high potential in areas in the eastern half of the KRCL, but they are not as large or as concentrated. Nearly all high potential areas are adjacent to existing conserved lands. A more in-depth explanation and breakdown exists in the Subregion Section.



## REFERENCES

1 <https://kittatinnyridge.org/explore/about-the-ridge/>

2 Kittatinny Ridge Fact Sheet

[http://kittatinnyridge.org/wp-content/uploads/2016/12/KIT\\_factsheet\\_10-21-16.pdf](http://kittatinnyridge.org/wp-content/uploads/2016/12/KIT_factsheet_10-21-16.pdf)

3 Approximate aggregated 2020 Census block group population statistics

\* Some census block groups do not fall entirely within the KRCL boundary. Because of this, the population figures for those block groups do not accurately reflect the population that lives entirely within the KRCL. The total population for all census

block groups that are at least in some part within the KRCL is 931,897.  
This map shows the census block groups that touch the boundary of the KRCL.

4 <https://www.census.gov/quickfacts/fact/note/US/RHI625221>

5 American Community Survey and Puerto Rico Community Survey 202 Subject Definitions

6 American Community Survey and Puerto Rico Community Survey 202 Subject Definitions

7 <https://www.census.gov/programs-surveys/cps/technical-documentation/subject-definitions.html#children>

8 <https://www.pasda.psu.edu/uci/DataSummary.aspx?dataset=1892>

9 <https://www.pasda.psu.edu/uci/DataSummary.aspx?dataset=1894>

10 <https://www.pasda.psu.edu/uci/DataSummary.aspx?dataset=1896>

## SUBREGIONS

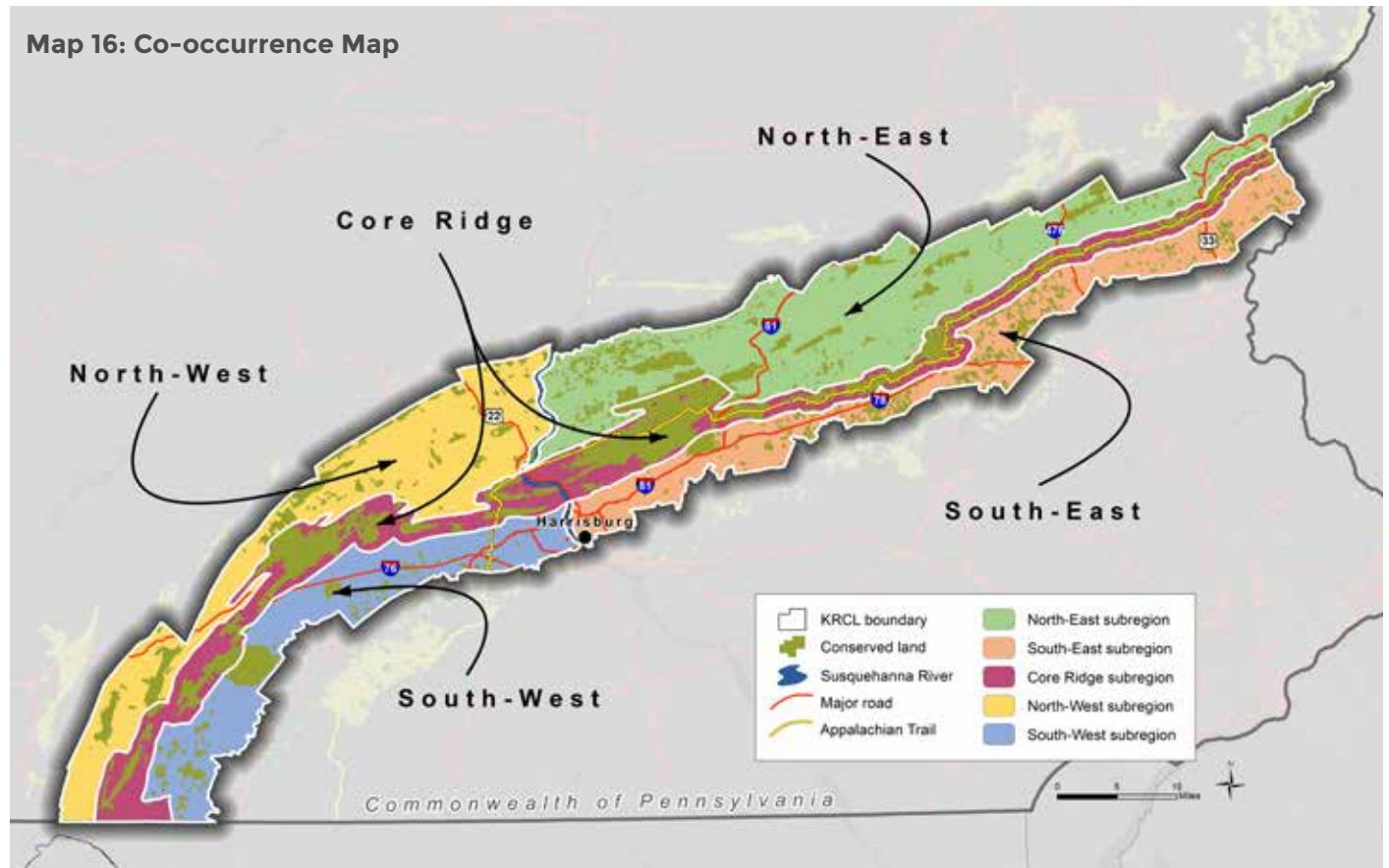
The Kittatinny Ridge Conservation Landscape (KRCL) is over 2.1 million acres in size and accounts for more than 7% of the land area in the State of Pennsylvania. Considering the size of the KRCL, the landscape, communities, respective cultures, and challenges are wide-ranging and locally distinct from east to west, north to south, high elevation to low. While these localized issues present significant challenges, an opportunity exists in the idea of subregions. Considering the diverse and nuanced interests impacting different areas of the KRCL, the conservation planning approach should be equally dynamic and provide strategic solutions. For this reason, a subregion analysis was completed to better understand the more localized impacts, needs, resources and opportunities of the KRCL. Five subregions

Subregion	County	Acres	Percent of Subregion
North - East	MONROE	69,870	12%
	SCHUYLKILL	331,767	55%
	LEBANON	1,678	0.3%
	CARBON	73,069	12%
	DAUPHIN	124,932	21%
South - East	NORTHAMPTON	96,209	29%
	BERKS	82,892	25%
	LEBANON	54,459	17%
	DAUPHIN	51,778	16%
	LEHIGH	44,631	13%
North - West	PERRY FRANKLIN	270,019	66%
	FULTON	43,866	11%
		94,792	23%
South - West	CUMBERLAND	149,011	51%
	FRANKLIN	140,836	49%
Core Ridge	MONROE	18,851	4%
	NORTHAMPTON	23,639	5%
	PERRY	85,869	17%
	SCHUYLKILL	31,034	6%
	BERKS	44,135	9%
	LEBANON	36,309	7%
	CARBON	13,398	3%
	CUMBERLAND	33,813	7%
	DAUPHIN	89,650	18%
	LEHIGH	13,848	3%
	FRANKLIN	108,574	21%
	FULTON	15,708	3%



were created using the two most distinguishable physical features in the service area – the Kittatinny Ridge and the Susquehanna River. The Kittatinny Core Ridge is one subregion, with the four others being north/south of the ridge and east/west of the river. Subregions are shown in Map 16.

Because physical landscape features were used to create subregions, the boundaries do not fall along political lines. To help understand the jurisdictions within each subregion, below is a list of counties that make up the respective subregions:



## APPENDIX B: Survey Report

## Q1 Name

Answered: 70   Skipped: 3

#	RESPONSES	DATE
1	Janet Pollard	8/1/2022 11:39 AM
2	Laura Brown	8/1/2022 9:58 AM
3	Bethany Canner	7/31/2022 5:28 PM
4	Marlyn Kissner	7/30/2022 8:43 AM
5	Meranda Harwood	7/28/2022 2:26 PM
6	Glenn Holliman	7/28/2022 12:20 PM
7	Crystal SEitz	7/27/2022 11:49 AM
8	Dennis DeMara	7/26/2022 9:32 AM
9	Valerie Pasi3n	7/26/2022 7:19 AM
10	Kristen Rowe	7/25/2022 1:32 PM
11	Holly Smith	7/25/2022 10:29 AM
12	Kevin Cochrane	7/23/2022 5:46 PM
13	Lauri Danko	7/23/2022 2:55 PM
14	Amanda Duren	7/22/2022 9:06 AM
15	Bernard Devlin	7/21/2022 3:35 PM
16	N. Scott Parkhill	7/21/2022 3:34 PM
17	Sophie Becker-Klein	7/21/2022 10:36 AM
18	Brian Bossuyt	7/20/2022 10:13 PM
19	Debra Schuler	7/20/2022 8:55 PM
20	JOHN J NIERER	7/20/2022 5:10 PM
21	john a. hiscott	7/20/2022 4:40 PM
22	Robin Irizarry	7/20/2022 4:34 PM
23	Ty Johnson	7/20/2022 3:47 PM
24	Ashley Showers	7/20/2022 3:39 PM
25	Dion Campbell	7/20/2022 3:34 PM
26	Helen Delano	7/20/2022 3:25 PM
27	Bill Allis	7/20/2022 3:18 PM
28	Kristen Hand	7/20/2022 3:07 PM
29	Dawn Gorham	7/20/2022 3:06 PM
30	Chris Oest	7/20/2022 3:01 PM
31	Ellen Fehrs	7/20/2022 2:53 PM
32	Kim Murphy	7/20/2022 2:44 PM
33	David manzo	7/19/2022 2:40 PM

## Conservation Plan for the Kittatinny Ridge Landscape

34	Janice Meyers	7/19/2022 1:56 PM
35	Stephen Reider	7/19/2022 11:52 AM
36	Judith Henckel	7/19/2022 11:01 AM
37	Teresa Mackey	7/19/2022 10:17 AM
38	Sue Kunisky	7/15/2022 3:29 PM
39	John Greer	7/15/2022 3:19 PM
40	Katherine Hetherington Cunfer	7/15/2022 11:01 AM
41	Tom Kerr	7/15/2022 9:49 AM
42	Brook Lenker	7/13/2022 3:06 PM
43	Laurie Jean Goodrich	7/13/2022 1:00 PM
44	Jeremy Haymaker	7/13/2022 11:26 AM
45	Tinku Khanwalkar	7/12/2022 4:32 PM
46	Paul Zeph	7/12/2022 8:42 AM
47	Louise Bugbee	7/12/2022 7:52 AM
48	Alexandria Bowling	7/11/2022 9:35 PM
49	Bob Heil	7/11/2022 3:13 PM
50	Jennifer kuzo	7/11/2022 2:03 PM
51	Christine Dettore	7/11/2022 11:46 AM
52	Charles Ogle	7/11/2022 11:45 AM
53	Frank Grumbine	7/11/2022 10:23 AM
54	De Wolf	7/11/2022 10:06 AM
55	Mark Palerino	7/11/2022 8:44 AM
56	christine Meinhart-Fritz	7/11/2022 8:32 AM
57	Alexa Korber	7/11/2022 7:58 AM
58	Larry Lloyd	7/10/2022 4:37 PM
59	Barbara Wiemann	7/8/2022 9:46 PM
60	Sally Zaino	7/8/2022 9:11 PM
61	charles cole	7/8/2022 8:06 PM
62	Jo Ellen Litz	7/8/2022 7:36 PM
63	Barbara Ritzheimer	7/8/2022 7:02 PM
64	Ed Franco	7/8/2022 6:33 PM
65	Per Hagen	7/8/2022 6:09 PM
66	Chris Habeck	7/8/2022 5:49 PM
67	Rafiyqa Muhammad	7/8/2022 12:23 PM
68	Matt McGough	7/8/2022 12:21 PM
69	Courtney Reimann	7/8/2022 12:07 PM
70	Ron Freed	7/8/2022 11:54 AM



## Q2 Entity/Organizations(s)

Answered: 70 Skipped: 3

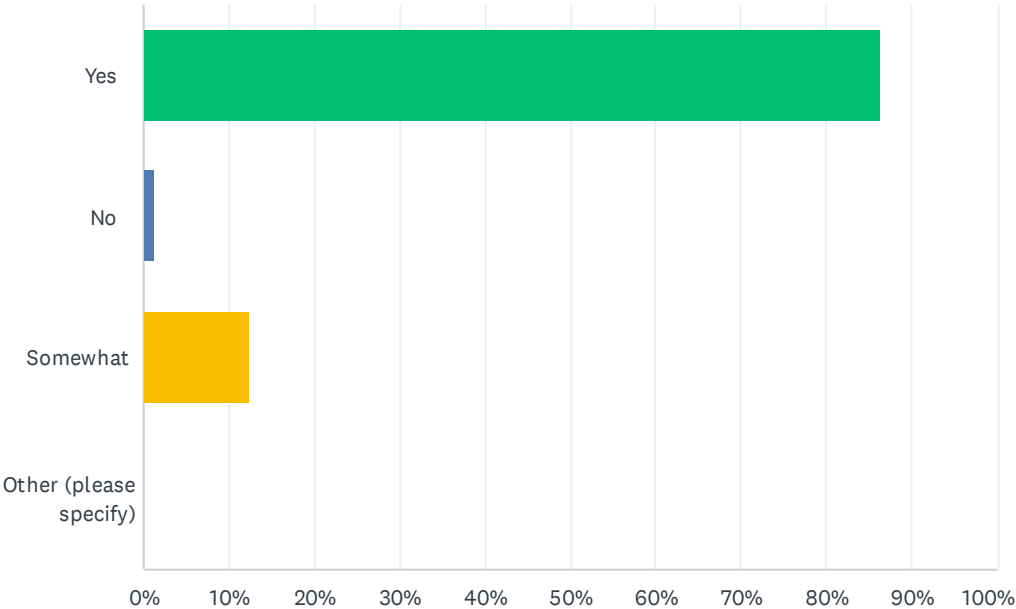
#	RESPONSES	DATE
1	Franklin County Visitors Bureau	8/1/2022 11:39 AM
2	Silver Spring Township (Cumberland County) Land Preservation Program	8/1/2022 9:58 AM
3	Swatara Watershed Association, Penn State Master Watershed Stewards	7/31/2022 5:28 PM
4	Pocono Mountains Visitors Bureau	7/30/2022 8:43 AM
5	Friends of the Clarks Ferry Tavern	7/28/2022 2:26 PM
6	Friends of Clarks Ferry Tavern, Duncannon, PA	7/28/2022 12:20 PM
7	PA Americana Region Visitors Bureau - Reading & Berks County	7/27/2022 11:49 AM
8	Wildlands Conservancy	7/26/2022 9:32 AM
9	Patterson Park Audubon Center	7/26/2022 7:19 AM
10	Cumberland Area Economic Development Corp/Cumberland Valley Visitors Bureau	7/25/2022 1:32 PM
11	Penn State Extension	7/25/2022 10:29 AM
12	Bushkill Stream Conservancy; Trout Unlimited - Forks of the Delaware Chapter	7/23/2022 5:46 PM
13	Central Pennsylvania Conservancy, President Board of Directors	7/23/2022 2:55 PM
14	Appalachian Mountains Joint Venture	7/22/2022 9:06 AM
15	Audubon Mid-Atlantic	7/21/2022 3:35 PM
16	Audubon Mid-Atlantic	7/21/2022 3:34 PM
17	FAO Schwarz Fellow with Audubon Mid-Atlantic	7/21/2022 10:36 AM
18	Pocono Mountains Visitors Bureau	7/20/2022 10:13 PM
19	Freinds of Cherry Valley National Wildlife Refuge	7/20/2022 8:55 PM
20	Moore Township Land and Environmental Protection	7/20/2022 5:10 PM
21	none	7/20/2022 4:40 PM
22	Audubon	7/20/2022 4:34 PM
23	DCNR Bureau of Geologic Survey	7/20/2022 3:47 PM
24	Berks County Planning Commission	7/20/2022 3:39 PM
25	Northampton County Conservation District	7/20/2022 3:34 PM
26	DCNR _ Geological Survey	7/20/2022 3:25 PM
27	Central Pa Conservancy	7/20/2022 3:18 PM
28	DCNR/ Internal Lead	7/20/2022 3:07 PM
29	Wildlands Conservancy	7/20/2022 3:06 PM
30	PAGS	7/20/2022 3:01 PM
31	DCNR	7/20/2022 2:53 PM
32	Berks Nature	7/20/2022 2:44 PM
33	Wind gap borough council, planning commission	7/19/2022 2:40 PM

## Conservation Plan for the Kittatinny Ridge Landscape

34	Heidelberg Township, Lehigh County	7/19/2022 1:56 PM
35	Bangor Borough	7/19/2022 11:52 AM
36	Past Upper Mount Bethel EAC chair, Northampton County and UMBT Open Space Advisory Board, Martins-Jacoby Watershed Association secretary and Township Supervisor	7/19/2022 11:01 AM
37	Lehigh Valley Planning Commission	7/19/2022 10:17 AM
38	Visit Hershey & Harrisburg	7/15/2022 3:29 PM
39	Conococheague Audubon Society	7/15/2022 3:19 PM
40	Greater Reading Chamber Alliance	7/15/2022 11:01 AM
41	Hawk Mountain Sanctuary	7/15/2022 9:49 AM
42	Keystone Trails Association	7/13/2022 3:06 PM
43	Hawk Mountain Sanctuary	7/13/2022 1:00 PM
44	Berks Nature	7/13/2022 11:26 AM
45	Allentown Environmental Advisory Council Lehigh Valley Bird Town Coalition	7/12/2022 4:32 PM
46	DCNR Bureau of State Parks	7/12/2022 8:42 AM
47	LMSuppan,LLC	7/12/2022 7:52 AM
48	Appalachian Audubon Society	7/11/2022 9:35 PM
49	Hamilton Twp	7/11/2022 3:13 PM
50	Visit Lebanon Valley	7/11/2022 2:03 PM
51	PA DCNR	7/11/2022 11:46 AM
52	APWC	7/11/2022 11:45 AM
53	Pennsylvania Historical Museum Commission	7/11/2022 10:23 AM
54	Natural Lands	7/11/2022 10:06 AM
55	DCNR	7/11/2022 8:44 AM
56	Monroe County Planning Commission	7/11/2022 8:32 AM
57	Tri-County Regional Planning Commission	7/11/2022 7:58 AM
58	Berks Nature	7/10/2022 4:37 PM
59	I belong to the Allentown Hiking Club ; Appalachian Mountain Club; Lehigh Gap Nature Center ; Keystone Trails Association ; Appalachian Trail Conservancy	7/8/2022 9:46 PM
60	Manada Conservancy	7/8/2022 9:11 PM
61	resident of UMBT	7/8/2022 8:06 PM
62	County of Lebanon Swatara Watershed Association	7/8/2022 7:36 PM
63	Schuylkill County Conservancy	7/8/2022 7:02 PM
64	Cumberland County Planning Commission Lower Frankford Township Planning Commission	7/8/2022 6:33 PM
65	Synchronicity Recovery Foundation	7/8/2022 6:09 PM
66	Biology Dept, Kutztown University	7/8/2022 5:49 PM
67	Sustainable Human Environment	7/8/2022 12:23 PM
68	Berks County Planning Commission	7/8/2022 12:21 PM
69	Lebanon Valley Conservancy	7/8/2022 12:07 PM
70	Volunteer - Waggoner's Gap Hawk Watch	7/8/2022 11:54 AM

Q3 Do you or your organization/business identify with or feel connected to the Kittatinny Ridge landscape (AKA Blue Mountain/ North Mountain)?

Answered: 73 Skipped: 0



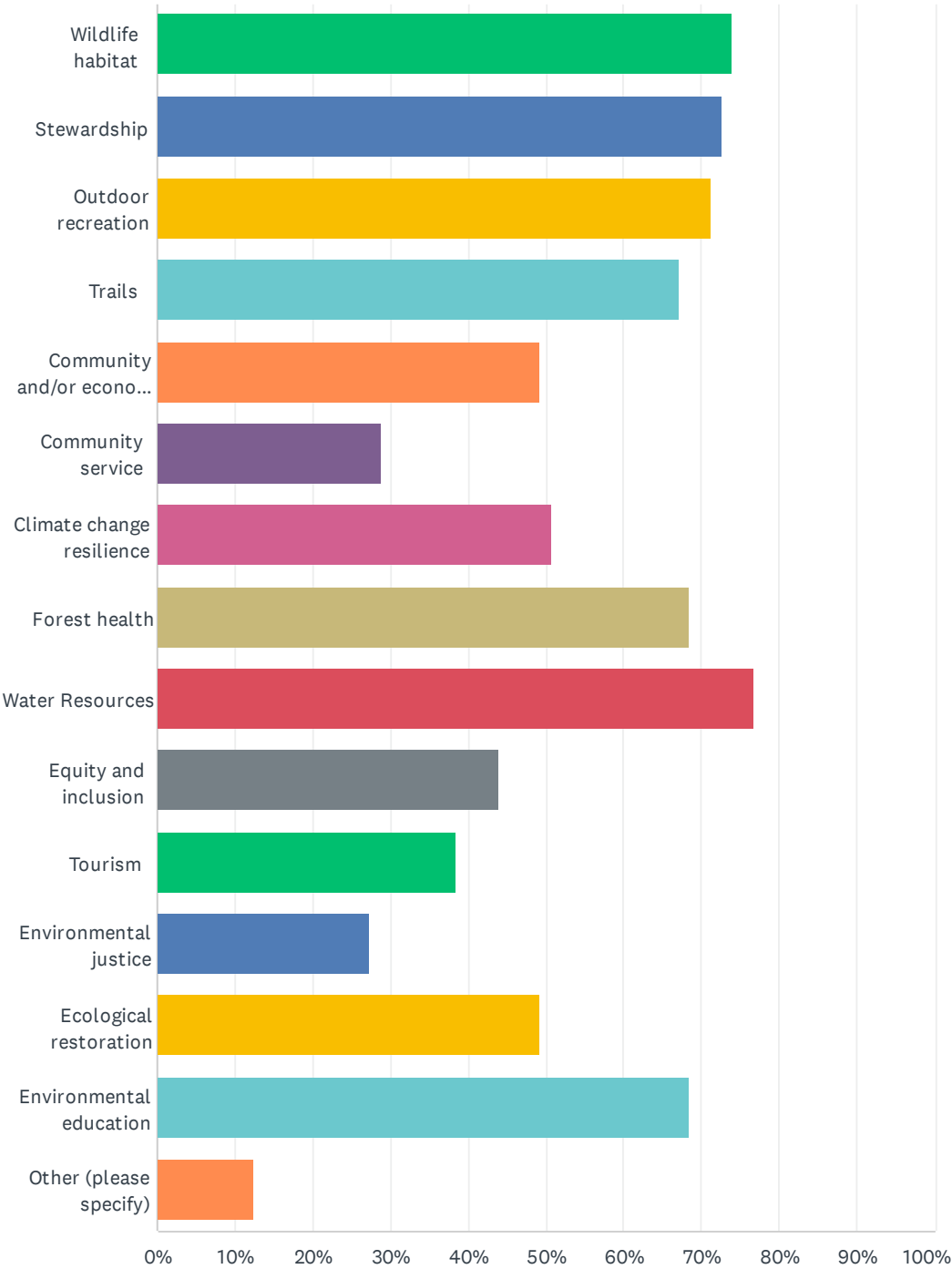
ANSWER CHOICES	RESPONSES	
Yes	86.30%	63
No	1.37%	1
Somewhat	12.33%	9
Other (please specify)	0.00%	0
TOTAL		73

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	



Q4 Which of the following goals or priorities are important in your work?  
Check all that apply.

Answered: 73    Skipped: 0



## Conservation Plan for the Kittatinny Ridge Landscape

ANSWER CHOICES	RESPONSES	
Wildlife habitat	73.97%	54
Stewardship	72.60%	53
Outdoor recreation	71.23%	52
Trails	67.12%	49
Community and/or economic development	49.32%	36
Community service	28.77%	21
Climate change resilience	50.68%	37
Forest health	68.49%	50
Water Resources	76.71%	56
Equity and inclusion	43.84%	32
Tourism	38.36%	28
Environmental justice	27.40%	20
Ecological restoration	49.32%	36
Environmental education	68.49%	50
Other (please specify)	12.33%	9
Total Respondents: 73		

#	OTHER (PLEASE SPECIFY)	DATE
1	All the above are important to keep in balance, but the selected are most important in maintaining tourism assets and desirability.	8/1/2022 11:39 AM
2	Land preservation	8/1/2022 9:58 AM
3	Anti-litter	7/20/2022 10:13 PM
4	geologic history including glacial history climate history	7/20/2022 3:47 PM
5	Geologic hazards - specifically slope stability (landslides and debris flows )	7/20/2022 3:25 PM
6	Research	7/20/2022 2:53 PM
7	promoting use of native plants, observing bird populations	7/15/2022 3:19 PM
8	Workforce Development	7/12/2022 4:32 PM
9	Land Protection,	7/11/2022 10:06 AM

## Q5 What types of outdoor recreation activities should be maintained or planned for across the Kittatinny Ridge Conservation Landscape in the future?

Answered: 69 Skipped: 4

#	RESPONSES	DATE
1	Hiking, birding, nature and environmental observation, walking, hunting and fishing are top selections. Then, trails for biking, cross country skiing, and snow mobile as appropriate environmentally and where a plan of maintenance is possible.	8/1/2022 11:39 AM
2	Appalachian Trail and other trails	8/1/2022 9:58 AM
3	Land and water trails for hiking, biking and paddling	7/31/2022 5:28 PM
4	All outdoor activities - hiking, camping, fishing, etc.	7/30/2022 8:43 AM
5	Hiking, wildlife sighting opportunities, access to amenities, educational opportunities	7/28/2022 2:26 PM
6	All of the above. Clarks Ferry Tavern, 1790, being restored will serve as a Welcome and Interpretative Center for the Appalachian Trail, the National 9/11 Trail and environmental education, plus interpret the Juniata and Susquehanna River Valleys.	7/28/2022 12:20 PM
7	Trails	7/27/2022 5:11 PM
8	Mtn. Biking, hiking and possibly ziplining	7/27/2022 11:49 AM
9	Hiking, birding, hunting	7/26/2022 9:32 AM
10	hiking trails	7/26/2022 7:19 AM
11	Trails that can connect fractured parks/forests/communities etc.	7/25/2022 1:32 PM
12	Responsible recreational use of our waterways (paddling, floating, fishing, etc.), hiking, hunting, bird/wildlife watching, star gazing	7/25/2022 10:29 AM
13	Hiking, fishing, camping, biking, hunting, birding	7/23/2022 5:46 PM
14	passive to semi-active opportunities to include hiking, birding and wildlife viewing, plant-finding, nature photography.	7/23/2022 2:55 PM
15	In addition to hiking, birdwatching, and other non-consumptive uses, I think it is important to think about how to promote hunting within the landscape to help keep deer numbers lower. High deer densities can have significant negative impacts on native plant communities, especially in promoting the regeneration of desirable trees following a harvest.	7/22/2022 9:06 AM
16	Accessible trails and educational signage describing the work done.	7/21/2022 3:35 PM
17	Hiking, birding, hunting	7/21/2022 3:34 PM
18	Camping, hiking, birding	7/21/2022 10:36 AM
19	Use of the river rafting, boating, tubing, fishing and swimming. Also hiking, biking, bird watching and camping along the shore line where available	7/20/2022 10:13 PM
20	Hiking	7/20/2022 8:55 PM
21	trails, bird habitat	7/20/2022 4:40 PM
22	Hiking, birding, camping	7/20/2022 4:34 PM
23	hiking, biking, canoeing, skiing, bird watching, camping, paragliding, train rides	7/20/2022 3:47 PM
24	Trail connections especially those that are accessible. Trails should be for all users.	7/20/2022 3:39 PM
25	Hiking, canoeing, Kayaking, fishing, hunting, photography	7/20/2022 3:34 PM



## Conservation Plan for the Kittatinny Ridge Landscape

26	hiking	7/20/2022 3:18 PM
27	Hiking, biking, camping, boating, hunting, fishing	7/20/2022 3:12 PM
28	AT connections and connections to the urban centers	7/20/2022 3:07 PM
29	Hiking and connecting trails to local communities.	7/20/2022 3:06 PM
30	Hiking/biking trails of varying degrees of difficulty, overlooks for general views of the Great Valley to the south/Valley and Ridge to the north	7/20/2022 3:01 PM
31	Hiking, kayaking, and cycling.	7/20/2022 2:53 PM
32	Trails, passive recreation	7/20/2022 2:44 PM
33	Hiking, water sports, wildlife refuge,hunting	7/19/2022 2:40 PM
34	Hiking and mountain biking trails. Lookouts for viewing birds and nature. Hunting areas.	7/19/2022 1:56 PM
35	Biking and walking trails, hunting, fishing.	7/19/2022 11:52 AM
36	Environmental awareness through low impact and selective area activities	7/19/2022 11:01 AM
37	passive, low-impact, nature-based	7/19/2022 10:17 AM
38	Hiking, biking, kayaking	7/15/2022 3:29 PM
39	bird watching	7/15/2022 3:19 PM
40	The trails are a major economic driver in this region. The focus should be on improving the existing trails, expanding access, and connecting different routes to give more access.	7/15/2022 11:01 AM
41	hiking, birdwatching	7/15/2022 9:49 AM
42	Organized hikes. Packaged trips (best of the KRCL)...e.g. long weekend getaways. Outdoor adventures (paddling , climbing, trail runs, etc.). Environmental education opportunities and experiences. Volunteer workdays. Skills training (in the field & for all skill levels).	7/13/2022 3:06 PM
43	hiking and birdwatching	7/13/2022 1:00 PM
44	Hiking, Mountain Biking, Walking, Bird Watching	7/13/2022 11:26 AM
45	Hiking, biking, bird watching, wine tasting, painting (particularly eco-art)	7/12/2022 4:32 PM
46	hiking, birdwatching, mountain biking, hunting, fishing, all passive recreation activities	7/12/2022 8:42 AM
47	low impact use	7/12/2022 7:52 AM
48	Birding and native plant identification activities would be great! Building a bird friendly community in our own back yard.	7/11/2022 9:35 PM
49	Passive recreation	7/11/2022 3:13 PM
50	Hikes, wildlife exploration.	7/11/2022 2:03 PM
51	Trail and general recreation access.	7/11/2022 11:46 AM
52	APPALACHIAN TRAIL	7/11/2022 11:45 AM
53	Heritage tourism	7/11/2022 10:23 AM
54	hiking,	7/11/2022 10:06 AM
55	Education and trails	7/11/2022 8:32 AM
56	Trails and trail systems, parks (not playground, but natural parks) and wildlife/environmental education centers.	7/11/2022 7:58 AM
57	passive non-consumptive recreation	7/10/2022 4:37 PM
58	Non-motorized recreation such as hiking and biking. Activities such as birding, wildlife viewing, nature study. Opportunities to enjoy nature and find solitude. Vistas for inspiration,	7/8/2022 9:46 PM
59	Trail connectivity	7/8/2022 9:11 PM

## Conservation Plan for the Kittatinny Ridge Landscape

60	hking for one	7/8/2022 8:06 PM
61	Water Trails and access points for kayaking Rail Trails and connections to towns for hiking and biking	7/8/2022 7:36 PM
62	Hiking, hunting, birding, wildlife watching	7/8/2022 7:02 PM
63	Hiking, especially ensuring a greater role for the Tuscarora Trail. Bird Watching. Mountain Biking. Hunting , Fishing , General Bicycling, Kayaking and Canoeing	7/8/2022 6:33 PM
64	Trail maintenance, environmental consciousness. outdoor activities hiking camping etc	7/8/2022 6:09 PM
65	All things non-motorized.	7/8/2022 5:49 PM
66	Plant identification, reading compasses to learn how to find your way, learning about litter/trash and how it impacts the environment	7/8/2022 12:23 PM
67	Passive types of recreation so as not to adversely impact the natural and scenic environment.	7/8/2022 12:21 PM
68	Swatara state park-fishing, hiking, cycling Lebanon Valley Rail Trail connections state game land recreation	7/8/2022 12:07 PM
69	Low impact recreation	7/8/2022 11:54 AM

## Q6 Organizations, businesses, land trusts, state agencies, recreation groups, communities, and others are all considered partners in our work protecting natural resources and connecting people to natural places. What can the Kittatinny Coalition do to be more attractive and inclusive to a greater diversity of partners?

Answered: 53 Skipped: 20

#	RESPONSES	DATE
1	Be proactive in reaching out to the populace at larger, not just to the receptive audiences. For example, promote participation in Amazon Smile, garner a relationship with ATC towns along the Ridge, become a local Subaru Share the Love community are possibilities.	8/1/2022 11:39 AM
2	Continue to educate and plan outreach initiatives.	7/30/2022 8:43 AM
3	Local community outreach.	7/28/2022 2:26 PM
4	The Clarks Ferry Tavern will offer display space for the A.T. and other recreational and environmental groups. Space for community groups and educational seminars.	7/28/2022 12:20 PM
5	I don't know enough about this coalition to respond	7/27/2022 11:49 AM
6	Promote the benefits	7/26/2022 9:32 AM
7	Outreach to include and compensate for input and collaboration from Spanish-speaking communities and Leni-Lenape communities.	7/26/2022 7:19 AM
8	Educational resources that we can all share that show "how to" content and make people feel welcome and that they are capable of participating in outdoor recreation.	7/25/2022 1:32 PM
9	Share the economic value of the Ridge (which you have been doing), promote water resource protection, try to think: "What's In It For Me" from the community's perspective - what do they value? What do they need?	7/25/2022 10:29 AM
10	Contact local social organizations near targeted areas (to include YMCA, YWCA) as well as local schools and County social services offices.	7/23/2022 2:55 PM
11	When thinking about attracting new partners to conservation, I think it is important to listen to the needs and interests of these potential new partners and look for relevancy with your work. One strategy we're using is to host a listening session with new potential partners to focus entirely on hearing from them and learning about their goals and interests, before starting to talk about connecting them with your work.	7/22/2022 9:06 AM
12	Bilingual (Spanish) resources and signs, variety of trails with accessibility for all.	7/21/2022 3:35 PM
13	I think industry is often an uninvited partner but outreach and partnership with local and influential businesses would make this collaboration stand out.	7/21/2022 3:34 PM
14	Communication and continuing to educate and advocate with your partners.	7/20/2022 10:13 PM
15	Educate and offer more hiking opportunities to reach people and partners	7/20/2022 8:55 PM
16	Support and encourage affinity groups of trail users, like In Color Birding Club, Outdoor Afro, connecting with Indigenous groups. Remove barriers to participation - consider events where transportation is provided, admission costs are waived, etc.	7/20/2022 4:34 PM
17	What is the vision of a perfect KRCL? American history of the ridge. Native American history.	7/20/2022 3:47 PM
18	Enter the communities you are trying to include. Figure out what activities they are interested in. Work with local businesses to get word out.	7/20/2022 3:39 PM
19	No comment	7/20/2022 3:34 PM



## Conservation Plan for the Kittatinny Ridge Landscape

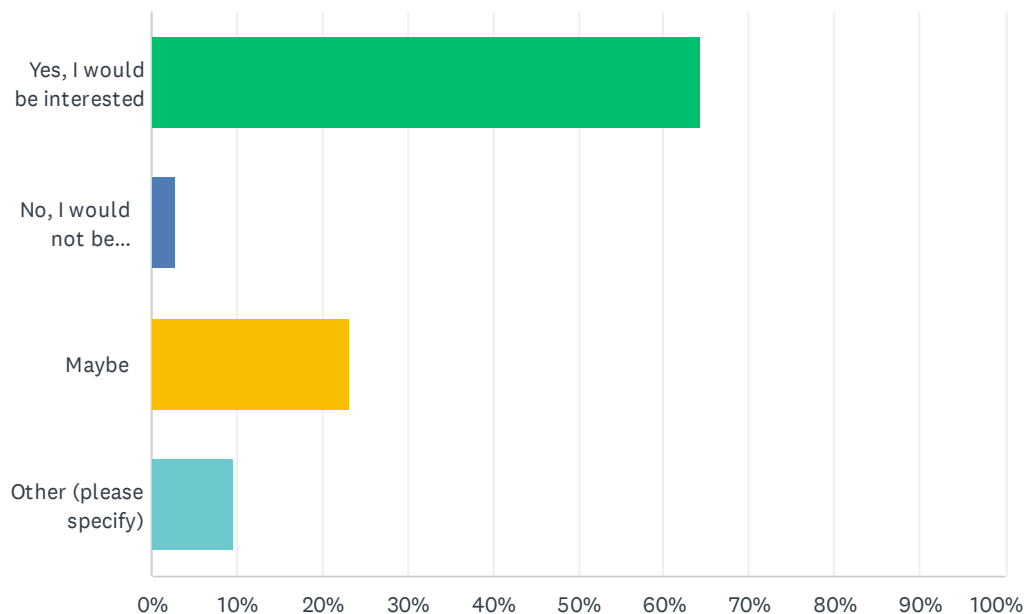
20	Clearer educational communities that span all ages	7/20/2022 3:12 PM
21	Create a ridge wide sustainable business partnership website to help connect habitat, recreation, and trade	7/20/2022 3:07 PM
22	Perhaps target a more diverse user group as a partner.	7/20/2022 3:06 PM
23	I saw on your website you have a Facebook, but a lot of younger people use alternative social media platforms. It would be nice to add Twitter or Instagram. Instagram would be particularly good for sharing photos from parks/trails/etc.! This could help get more students involved, as well as people who live in more urban areas and may be unfamiliar with state parks/forests.	7/20/2022 2:53 PM
24	Draw connection to their drinking water Address transportation barriers	7/20/2022 2:44 PM
25	Actively advertise.	7/19/2022 11:52 AM
26	Promote economic development as a sustainably managed asset that enhances protection of the resource.	7/19/2022 11:01 AM
27	target public outreach to groups/organizations that have not previously been represented	7/19/2022 10:17 AM
28	Provide continual updates on sustainability efforts.	7/15/2022 3:29 PM
29	community outreach and education	7/15/2022 3:19 PM
30	Help coordinate IDEA efforts and information among members of the coalition.	7/15/2022 9:49 AM
31	Ongoing outreach. Branding - like the PA Wilds does very well - to associate high quality activities, products, and experiences with the landscape/initiative.	7/13/2022 3:06 PM
32	produce bilingual information on where to recreate and the biological values of the landscape. conserve corridors of green space off the ridge to small cities	7/13/2022 1:00 PM
33	Host events; webinars	7/13/2022 11:26 AM
34	Proactively reach out to more diverse communities, speaking their language and understanding their issues and needs	7/12/2022 4:32 PM
35	I don't know what the Coalition is currently doing in this arena, so I can't comment on what more could be done.	7/12/2022 8:42 AM
36	keep it simple	7/12/2022 7:52 AM
37	Collaboration is always good - reach out if there is an opportunity for our organization to help.	7/11/2022 9:35 PM
38	Be more visible and more outreach to various share holders	7/11/2022 3:13 PM
39	Need additional outreach.	7/11/2022 11:46 AM
40	Since the landscape is so large-maybe split regional subsections of the coalition which can be represented by locals of that subregion. Marketing a landscape and its narrative to various peoples and giving people a conduit to attach their love for the Kittatinny ridge.	7/11/2022 10:23 AM
41	Communications on the ridge, and coordinate more with other overlapping CL's.	7/11/2022 10:06 AM
42	tough question. The ridge is far from the population centers.	7/10/2022 4:37 PM
43	It seems that if you "build" it or make it available, people will come and use it (the Kittatinny Corridor).	7/8/2022 9:46 PM
44	Free educational materials and programs in underserved locations. Greater accessibility for those to don't have an easy way to get to green spaces. Connecting green spaces within urban settings. People need migration corridors too.	7/8/2022 9:11 PM
45	more advertising, stop the rock fall project	7/8/2022 8:06 PM
46	Include their logos in your work. If there are tons, use logos appropriate for a specific project.	7/8/2022 7:36 PM
47	More outreach to these various groups.	7/8/2022 7:02 PM
48	Offer concrete benefits for the non typical user and partners. e.g. Hunting clubs, farm groups, rural citizens with few resources.	7/8/2022 6:33 PM

## Conservation Plan for the Kittatinny Ridge Landscape

49	Education outreach at local city schools might help enhance inclusion.	7/8/2022 5:49 PM
50	show more of a presence in communities	7/8/2022 12:23 PM
51	I think it all comes down to marketing and how/where you promote the resources that you offer.	7/8/2022 12:21 PM
52	not sure	7/8/2022 12:07 PM
53	Outreach to various potential stakeholders about the values associated with the ridge	7/8/2022 11:54 AM

## Q7 Would you be interested in attending an annual gathering of the Kittatinny Ridge Conservation Landscape partners to network with others and learn about landscape-scale conservation for the landscape and communities within?

Answered: 73 Skipped: 0

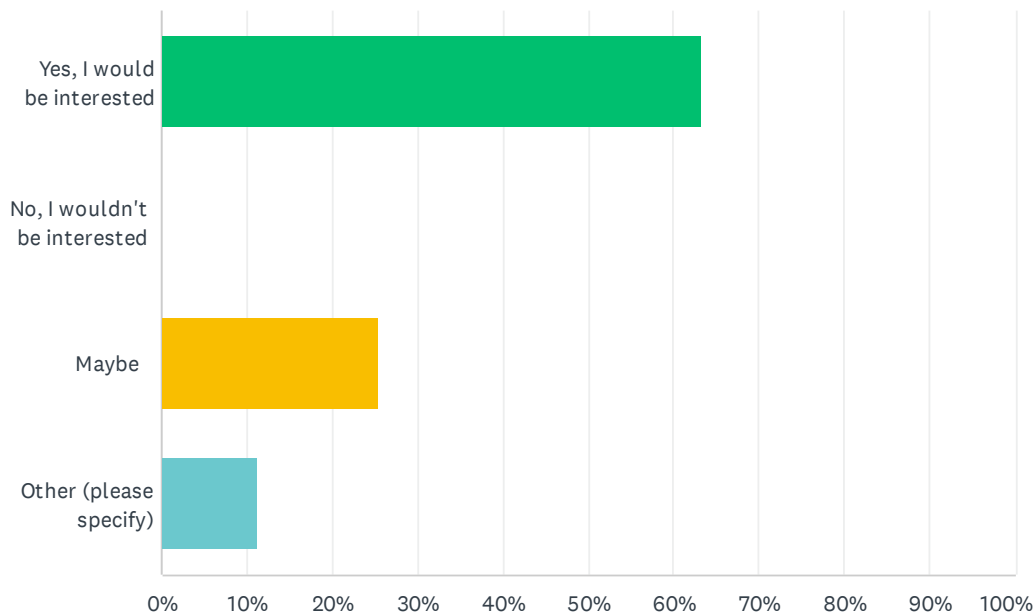


ANSWER CHOICES	RESPONSES	
Yes, I would be interested	64.38%	47
No, I would not be interested	2.74%	2
Maybe	23.29%	17
Other (please specify)	9.59%	7
<b>TOTAL</b>		<b>73</b>

#	OTHER (PLEASE SPECIFY)	DATE
1	A representative of the Friends of Clarks Ferry Tavern can attend.	7/28/2022 12:20 PM
2	wife and daughters may wish to attend	7/20/2022 4:40 PM
3	The township's Environmental Advisory Council members may be interested.	7/19/2022 1:56 PM
4	Yes, if by zoom still due to covid or small open air meeting	7/11/2022 10:06 AM
5	someone from Berks Nature would attend/participate at annual gathering	7/10/2022 4:37 PM
6	zoom would be great.	7/8/2022 7:36 PM
7	Not likely but am interested in staying informed about progress	7/8/2022 11:54 AM

**Q8 Would your agency, organization, business, or community be willing to collaborate on projects to protect open space, promote stewardship, connect people to outdoor spaces, provide environmental education, and/or support nature-based tourism in your community? This could include shared work plans and/or funding sources.**

Answered: 71 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes, I would be interested	63.38%	45
No, I wouldn't be interested	0.00%	0
Maybe	25.35%	18
Other (please specify)	11.27%	8
<b>TOTAL</b>		<b>71</b>

#	OTHER (PLEASE SPECIFY)	DATE
1	I am doing my best to preserve a farm. I cannot do more	7/20/2022 4:40 PM
2	Audubon already active in the partnership.	7/20/2022 4:34 PM
3	Agency will - I personally will likely be retired	7/20/2022 3:25 PM
4	The township's Environmental Advisory Council may be interested.	7/19/2022 1:56 PM
5	As an outside advisor to our local partners	7/19/2022 11:01 AM
6	Yes, the SHCL would very much be interested in collaborating on the overlap CL areas,	7/11/2022 10:06 AM
7	timing is everything. For example if we were in the middle of a comprehensive plan update, collaboration would be great to include in the plan.	7/8/2022 7:36 PM



Conservation Plan for the Kittatinny Ridge Landscape

8	The organization that I volunteer for would be interested	7/8/2022 11:54 AM
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## Q9 What kinds of collaborative opportunities do you see for projects related to conservation and natural resource protection in the Kittatinny Ridge region?

Answered: 53    Skipped: 20

#	RESPONSES	DATE
1	There is so much overlap in hiking, walking, birding trails. Franklin County Visitors Bureau is glad to share information about Kittatinny Ridge in visitors guide and other publications as well as Franklin County 11/30 Visitors Center.	8/1/2022 11:39 AM
2	Educational programming, stream/buffer restoration projects and tree plantings using Master Watershed Stewards and non-profits to emphasize the importance of clean water from head waters to rivers. Combined efforts to connect habitat islands.	7/31/2022 5:28 PM
3	Information sharing.	7/30/2022 8:43 AM
4	Connection of trails and landscape to in-town recreation and amenities. Updated and maintaining near-town access.	7/28/2022 2:26 PM
5	Education and landscaping the Tavern Green in Duncannon.	7/28/2022 12:20 PM
6	Coordinating resources to impact ridge goals	7/26/2022 9:32 AM
7	Creating educational signage that includes identification of important species/habitats to the region and traditional ecological knowledge of that species/habitats to be created in collaboration with Leni-Lenape or other local indigenous groups.	7/26/2022 7:19 AM
8	Any opportunity that would help residents/visitors better understand our natural assets and how to enjoy them and help preserve them.	7/25/2022 1:32 PM
9	Habitat enhancement projects, stream restoration efforts such as live staking & riparian buffer projects, education events/efforts	7/25/2022 10:29 AM
10	Education of public;	7/23/2022 5:46 PM
11	securing properties, funding collaboration, technical planning collaboration.	7/23/2022 2:55 PM
12	The multiple values and benefits of this region as a migration corridor, source of clean water, place for outdoor recreation, and carbon sink make it ideal for a collaborative project among multiple organizations with these different priorities. I would like to see a project that includes aspects of all of these together.	7/22/2022 9:06 AM
13	Future tree plantings, invasive species removal meetups, educational programs for youth	7/21/2022 3:35 PM
14	Public, private, industry, and NGO partnerships to manage habitats that span ownership boundaries (i.e. transmission corridor ROWs, private/public forest management, etc.)	7/21/2022 3:34 PM
15	Tourism and educational projects	7/20/2022 10:13 PM
16	Guided hikes on US Fish & Wildlife property with service employees and volunteers	7/20/2022 8:55 PM
17	I am in Stroud Township, looking at the trail. I would like to see the KR expand.	7/20/2022 4:40 PM
18	wetland and stream restorations	7/20/2022 3:47 PM
19	Working with large private land owners also the school systems.	7/20/2022 3:39 PM
20	Stewardship, preservation, restoration, education & outreach	7/20/2022 3:34 PM
21	Tourism and economic growth	7/20/2022 3:12 PM
22	Sustainability fairs bringing sustainable businesses across the ridge in touch with locals.	7/20/2022 3:07 PM
23	Working with partners to protect land, and bring different funding opportunities to the table.	7/20/2022 3:06 PM

## Conservation Plan for the Kittatinny Ridge Landscape

24	Detailed geologic mapping in the Ridge region	7/20/2022 3:01 PM
25	Economic development and conservation efforts	7/19/2022 2:40 PM
26	The township has a multi-municipal comprehensive plan that includes Lynn Township and Washington Township and we all have updated our zoning and subdivision/land development ordinances to protect the Blue Mountain.	7/19/2022 1:56 PM
27	Tourism opportunities.	7/19/2022 11:52 AM
28	The LVPC works collaboratively with all of the municipalities in the Lehigh Valley through projects such as Livable Landscapes. This project should coordinate with the County Planning Directors Association of Pennsylvania, as well as all county planning agencies.	7/19/2022 10:17 AM
29	bird surveys, promoting native plants	7/15/2022 3:19 PM
30	We are already engaged in similar projects such as the Schuylkill River Greenways trail expansion project from Reading to Hamburg. I see this as a similar project and an extension of that effort for Berks.	7/15/2022 11:01 AM
31	Organized hikes. Packaged trips (best of the KRCL)...e.g. long weekend getaways. Outdoor adventures (paddling , climbing, trail runs, etc.). Environmental education opportunities and experiences. Volunteer workdays. Skills training (in the field & for all skill levels).	7/13/2022 3:06 PM
32	land protection; biological monitoring of resources	7/13/2022 1:00 PM
33	The Allentown EAC has been partnering with Promise Neighborhoods Lehigh Valley on an AmeriCorps-based program which could include service opportunities and workforce training	7/12/2022 4:32 PM
34	Continue education and outreach to people who live along the corridor and municipalities; and continue land protection activities to add parcels to state landholdings and landowner easements.	7/12/2022 8:42 AM
35	restoration forestry	7/12/2022 7:52 AM
36	Planting native plants, birding, and environmental education programs.	7/11/2022 9:35 PM
37	Land, water and habitat conservation Trail network development	7/11/2022 3:13 PM
38	Conservation and wildlife protection, sustainability for us all to promote to locals and visitors.	7/11/2022 2:03 PM
39	Partnerships between CL's and mini grant opportunities for various organizations.	7/11/2022 11:46 AM
40	Tours. People need to see progress and problems with their own eyes.	7/11/2022 11:45 AM
41	Inclusion of interpretation of landscapes as historic and cultural assets rather than just ecological systems. The human story in association with the environment in this landscape is important to understand land use over time.	7/11/2022 10:23 AM
42	Berks County - We have a greenway plan that includes portions of Berks County and land protection is a key strategy for our CL. We are also completing the SRT in Berks. And Berks Parks and Rec are a key partner in our CL, as well as the county.	7/11/2022 10:06 AM
43	Tying land preservation in to water quality. With the rise of MS4 and other stormwater concerns, anything that has the potential to benefit water quality will soon become a priority at the local level.	7/11/2022 7:58 AM
44	Work with other organizations / individuals to maintain trails and protect our forests from graffiti.	7/8/2022 9:46 PM
45	Our mission is primarily land protection and education, with a strong native-plant-centric focus on stewardship. We are collaborating in these areas. The most valuable work in my opinion is protecting and connecting this landscape.	7/8/2022 9:11 PM
46	environmental activism	7/8/2022 8:06 PM
47	The proposed windmills on Blue Mountain are a perfect example. They are in the bird flyway as well as a training corridor for Fort Indiantown Gap. It's amazing the way unusual partnerships can benefit each other.	7/8/2022 7:36 PM
48	Collaborating on finding funding	7/8/2022 7:02 PM

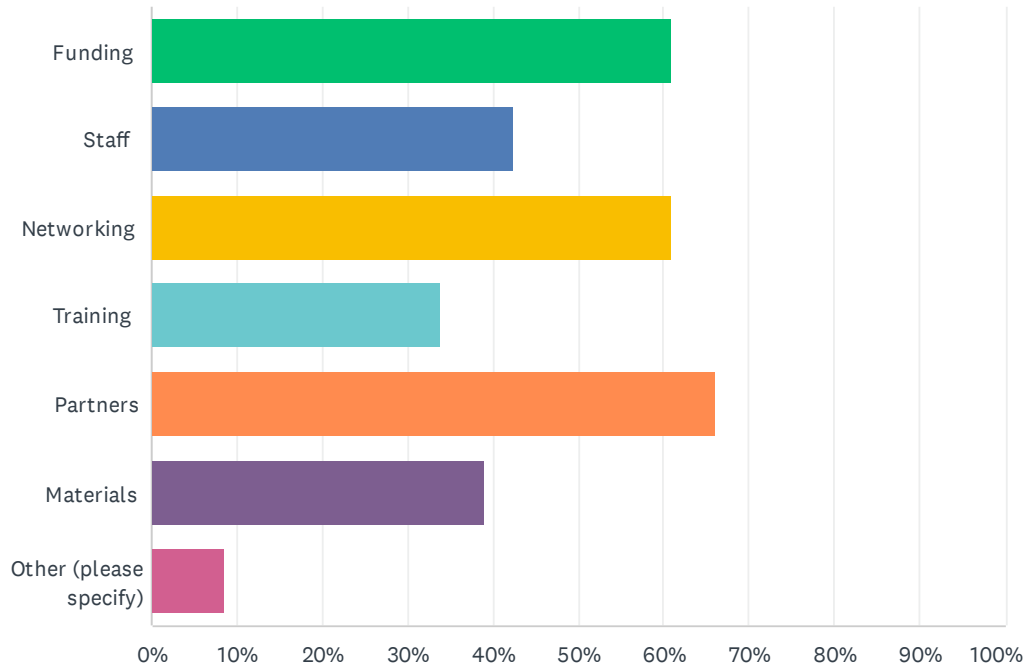
## Conservation Plan for the Kittatinny Ridge Landscape

49	DCNR and Forestry doing outreach related to Forest Stewardship for individual landowners who have forested areas on the ridge , both seasonal residents and permanent residents. PA Game Commission initiative to support hunting culture of private landowners on the ridge. Engage ATC to foster maintenance and continuity of the Tuscarora Trail.	7/8/2022 6:33 PM
50	Environmental Education and service projects. We have access to a large number of active volunteers	7/8/2022 6:09 PM
51	Phonological data collection, guided hikes, clean up efforts.	7/8/2022 5:49 PM
52	Input on local municipal plan development.	7/8/2022 12:21 PM
53	From my perspective working for a land trust, the biggest hurdle to placing a deed of conservation easement on a property is the money. Landowners want something for the easement. Landowners do not want to pay the Stewardship Fee required by the land trust. If I could figure out how to fund those two things then I would be able to conserve more properties. Perhaps there is a collaborative opportunity with a sponsor or foundation to cover those costs.	7/8/2022 12:07 PM



## Q10 What resources would you need to participate in such collaborative projects? Check all that apply.

Answered: 59 Skipped: 14



ANSWER CHOICES	RESPONSES	
Funding	61.02%	36
Staff	42.37%	25
Networking	61.02%	36
Training	33.90%	20
Partners	66.10%	39
Materials	38.98%	23
Other (please specify)	8.47%	5
Total Respondents: 59		

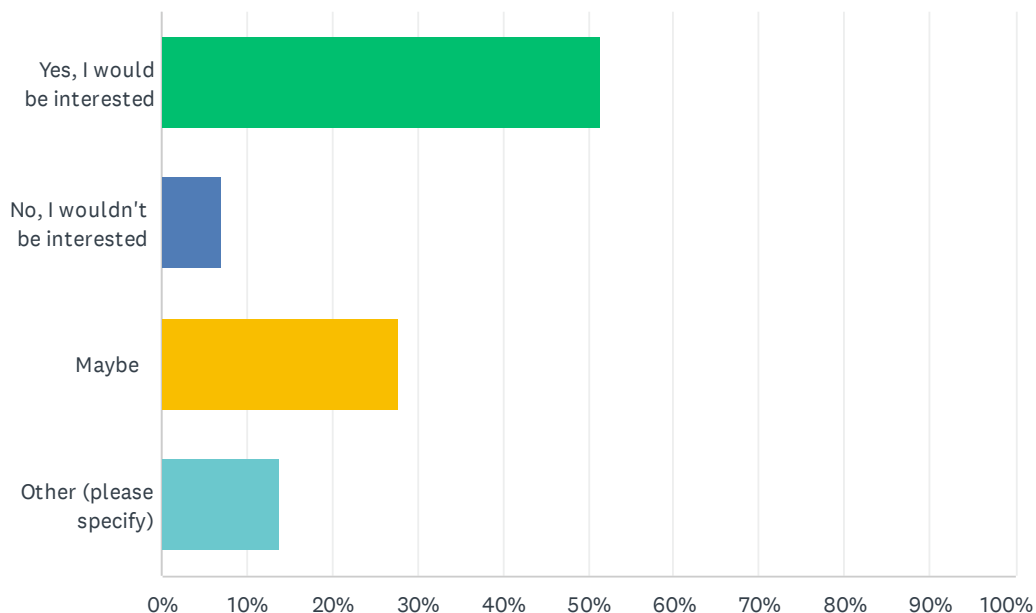
#	OTHER (PLEASE SPECIFY)	DATE
1	Primarily, the agreed upon information. From there, the collaboration could grow with special promotions or exhibits hosted in visitors center.	8/1/2022 11:39 AM
2	The Friends have \$1 million in government grants to restore the Tavern. Partners invited to help prepare displays welcoming visitors to the area and explaining both heritage and the environment.	7/28/2022 12:20 PM
3	I cannot help. I am 80.	7/20/2022 4:40 PM
4	The needed resources would depend on the specific service or workforce training programs we	7/12/2022 4:32 PM

Conservation Plan for the Kittatinny Ridge Landscape

	develop	
5	Just knowing your plan	7/11/2022 10:06 AM

## Q11 Would you be interested in attending regular events, trainings, or webinars related to the conservation and stewardship of the Kittatinny Ridge region?

Answered: 72 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes, I would be interested	51.39%	37
No, I wouldn't be interested	6.94%	5
Maybe	27.78%	20
Other (please specify)	13.89%	10
TOTAL		72

#	OTHER (PLEASE SPECIFY)	DATE
1	Attending on a periodic basis, but anything more than quarterly would be hard for me to commit.	8/1/2022 11:39 AM
2	A member of the Friends of Clarks Ferry Tavern	7/28/2022 12:20 PM
3	Virtual options are preferred	7/25/2022 12:04 PM
4	The township's Environmental Advisory Council may be interested.	7/19/2022 1:56 PM
5	I would like to involve other interested locals to participate	7/19/2022 11:01 AM
6	This depends on the frequency and timing of such events	7/12/2022 4:32 PM
7	Not trainings or webinars, but would attend a CL yearly meeting and sublandscape meeting.	7/11/2022 10:06 AM
8	someone from Berks Nature would attend /participate	7/10/2022 4:37 PM
9	Once a year would be doable. My schedule is pretty tight.	7/8/2022 7:36 PM

Conservation Plan for the Kittatinny Ridge Landscape

10	Could potentially partake of webinars	7/8/2022 11:54 AM
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## Q12 If yes, what topics would you like to see covered?

Answered: 41 Skipped: 32

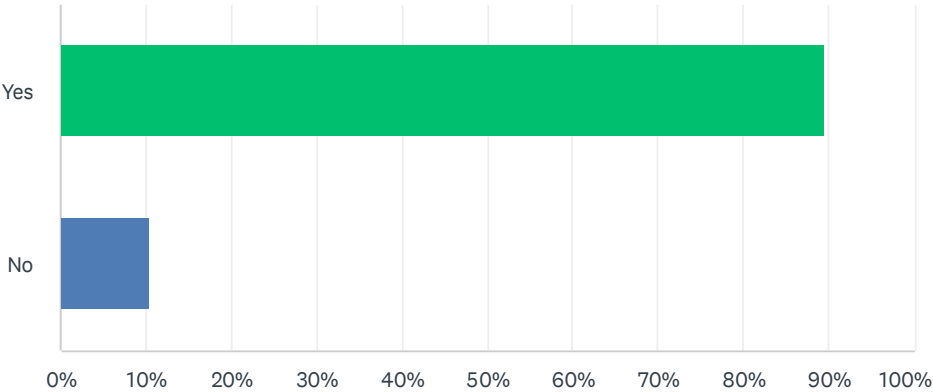
#	RESPONSES	DATE
1	Consumer/public education for visitors using the Ridge and trails that would help with stewardship.. Learning how visitors bureaus can be an outlet to teach public awareness, respect. Also, topics related to wildlife, birds, plants, those topics that create public interest-- which in turn generates more appreciation and importance in the public.	8/1/2022 11:39 AM
2	New development impacting the region, invasive species to watch for	7/31/2022 5:28 PM
3	Nature preservation, education.	7/30/2022 8:43 AM
4	Marketing the trails and recreational opportunities. Gaining community interest and involvement in conserving and maintaining the ridge as a recreational and economic resource.	7/28/2022 2:26 PM
5	Partnerships!	7/28/2022 12:20 PM
6	Water and wildlife resources	7/26/2022 9:32 AM
7	Forest ecology & habitat, climate resilience, migration, the economy of green space, geologic history	7/25/2022 10:29 AM
8	Summaries of local research or management projects, information on occurrences of priority wildlife species	7/22/2022 9:06 AM
9	Invasive plants webinars, which bird species utilize and frequent the property, updates on work done	7/21/2022 3:35 PM
10	Forest management, habitat projects on the ridge	7/21/2022 3:34 PM
11	Not sure	7/20/2022 8:55 PM
12	Habitat conservation, landscape restoration	7/20/2022 4:34 PM
13	basically a check list of all conservation and what stage the projects are in.	7/20/2022 3:47 PM
14	Impacts of all types of vehicles on soils, soil conservation, stream health	7/20/2022 3:34 PM
15	Trending health of KRCL	7/20/2022 3:12 PM
16	backyard and home sustainable solutions	7/20/2022 3:07 PM
17	Learning about projects other partner are doing along the ridge.	7/20/2022 3:06 PM
18	I would like to see participating partners, suggested projects	7/19/2022 2:40 PM
19	Topics we could share with our residents such as water conservation, leisure activities available to the public, public clean up days.	7/19/2022 1:56 PM
20	Proposed projects and project funding.	7/19/2022 11:52 AM
21	Public participation and engagement Methods of educational promotion	7/19/2022 11:01 AM
22	status of various protection efforts	7/19/2022 10:17 AM
23	habitat preservation	7/15/2022 3:19 PM
24	tourism opportunities (e.g. best places to stay or camp in the region); innovative outdoor programming examples; how to brand your event with the KRCL; Conservation issue sessions applicable to the KRCL;	7/13/2022 3:06 PM
25	new ordinances to better protect the ridge; review; how to get local townships to be involved in land conservation	7/13/2022 1:00 PM
26	Land management, ecological restoration	7/13/2022 11:26 AM

## Conservation Plan for the Kittatinny Ridge Landscape

27	Service opportunities under AmericCorps programs Potential funding sources and grant availabilities	7/12/2022 4:32 PM
28	botanical diversity	7/12/2022 7:52 AM
29	Action items for us to help and what is the work that needs doing.	7/11/2022 9:35 PM
30	Outdoor recreation, trails, conservation- for locals and visitors.	7/11/2022 2:03 PM
31	Wildlife greenways, climate change, invasive species	7/11/2022 11:45 AM
32	Actions/Deliverables important to group.	7/11/2022 10:06 AM
33	Things that relate to planning on regional, county, or local levels.	7/11/2022 7:58 AM
34	communicating the urgency of forest protection relative to climate change	7/10/2022 4:37 PM
35	Forest health ; invasive plants	7/8/2022 9:46 PM
36	Connecting developed areas to the ridge. DEIJ discussions. Land protection.	7/8/2022 9:11 PM
37	DWGNRA converting to NP	7/8/2022 8:06 PM
38	Definitely energy impacts on the ridge.	7/8/2022 7:36 PM
39	Information, education and technical assistance for individual land owners on the Ridge.	7/8/2022 6:33 PM
40	Long range planning for the next generation/stewardship	7/8/2022 6:09 PM
41	Restoration and invasive species management.	7/8/2022 5:49 PM

Q13 Would you like to be added to the Kittatinny Coalition e-newsletter list?

Answered: 67    Skipped: 6



ANSWER CHOICES	RESPONSES	
Yes	89.55%	60
No	10.45%	7
TOTAL		67

## Q14 If yes, please provide your email address:

Answered: 61 Skipped: 12

#	RESPONSES	DATE
1	jpollard@explorefranklincountypa.com	8/1/2022 11:39 AM
2	lbrown@sstwp.org	8/1/2022 9:58 AM
3	Bethany@swatarawatershed.org	7/31/2022 5:28 PM
4	mkissner@poconos.org	7/30/2022 8:43 AM
5	glennhistory@gmail.com	7/28/2022 12:20 PM
6	crystal@visitpaamericana.com	7/27/2022 11:49 AM
7	ddemara@wildlandspa.org	7/26/2022 9:32 AM
8	kristen@visitcumberlandvalley.com	7/25/2022 1:32 PM
9	hps5293@psu.edu	7/25/2022 10:29 AM
10	bushkillwulff@aol.com	7/23/2022 5:46 PM
11	ldanko@centralpaconservany.org	7/23/2022 2:55 PM
12	aduren@abcbirds.org	7/22/2022 9:06 AM
13	Bernard.devlin@audubon.org	7/21/2022 3:35 PM
14	sophie.beckerkleing@audubon.org	7/21/2022 10:36 AM
15	bbossuyt@poconos.org	7/20/2022 10:13 PM
16	FriendsOfCherryValley@gmail.com	7/20/2022 8:55 PM
17	jjnierer@yahoo.com	7/20/2022 5:10 PM
18	jahiscott@hotmail.com	7/20/2022 4:40 PM
19	robin.irizarry@audubon.org	7/20/2022 4:34 PM
20	tcjohnson@pa.gov	7/20/2022 3:47 PM
21	ashowers@countyofberks.com	7/20/2022 3:39 PM
22	dcampbell@northamptoncounty.org	7/20/2022 3:34 PM
23	khand@pa.gov	7/20/2022 3:07 PM
24	dgorham@wildlandspa.org	7/20/2022 3:06 PM
25	coest@pa.gov	7/20/2022 3:01 PM
26	I already signed up. (:	7/20/2022 2:53 PM
27	Manzod14@gmail.com	7/19/2022 2:40 PM
28	jmeyers@heidelberghigh.org	7/19/2022 1:56 PM
29	ednjudy@epix.net	7/19/2022 11:01 AM
30	sue@hersheyharrisburg.org	7/15/2022 3:29 PM
31	birdsplusmore@gmail.com	7/15/2022 3:19 PM
32	kcunfer@greaterreading.org	7/15/2022 11:01 AM
33	tjkerr3@gmail.com	7/15/2022 9:49 AM



## Conservation Plan for the Kittatinny Ridge Landscape

34	ktahike@kta-hike.org	7/13/2022 3:06 PM
35	goodrich@hawkmountain.org	7/13/2022 1:00 PM
36	jeremy.haymaker@berksnature.org	7/13/2022 11:26 AM
37	tinkuvolk@me.com	7/12/2022 4:32 PM
38	pazeph@pa.gov	7/12/2022 8:42 AM
39	lmsuppan@gmail.com	7/12/2022 7:52 AM
40	president@appalachianaudubon.org	7/11/2022 9:35 PM
41	hamtwp@ptd.net	7/11/2022 3:13 PM
42	jkuzo@visitlebanonvalley.com	7/11/2022 2:03 PM
43	cdettore@pa.gov	7/11/2022 11:46 AM
44	cogle1556@gmail.com	7/11/2022 11:45 AM
45	fgrumbine@pa.gov	7/11/2022 10:23 AM
46	cdewolf@natlands.org	7/11/2022 10:06 AM
47	mpalerino@pa.gov	7/11/2022 8:44 AM
48	cmeinhardt@monroecountypa.gov	7/11/2022 8:32 AM
49	akorber@tcrcp-pa.org	7/11/2022 7:58 AM
50	larry.lloyd@berksnature.org	7/10/2022 4:37 PM
51	blwiemann@gmail.com	7/8/2022 9:46 PM
52	Szaino@manada.org	7/8/2022 9:11 PM
53	cac7@psu.edu	7/8/2022 8:06 PM
54	joellenlitz15@comcast.net	7/8/2022 7:36 PM
55	barbritz@gmail.com	7/8/2022 7:02 PM
56	edwardalexanderfranco@gmail.com	7/8/2022 6:33 PM
57	pshagen@syncrecovery.org	7/8/2022 6:09 PM
58	habeck@kutztown.edu	7/8/2022 5:49 PM
59	rafiyqam@aol.com	7/8/2022 12:23 PM
60	mmcgough@countyofberks.com	7/8/2022 12:21 PM
61	rrfreed@embarqmail.com	7/8/2022 11:54 AM

## Q15 Do you have any other comments or suggestions for the 2022 Conservation Plan for the Kittatinny Ridge Conservation Landscape?

Answered: 25 Skipped: 48

#	RESPONSES	DATE
1	I appreciate partnering and support the conservation landscape approach for its overall impact on maintaining balanced communities that contribute to tourism.	8/1/2022 11:39 AM
2	Thank you!	7/30/2022 8:43 AM
3	Develop a localized, community-centric marketing plan.	7/28/2022 2:26 PM
4	Looking forward to a close collaboration with organizations such as this!	7/28/2022 12:20 PM
5	Not at this time. On behalf of CPC, we are looking forward to working with you!	7/23/2022 2:55 PM
6	The ridge stands out because of its function as a migratory corridor for a huge quantity of Northeastern forest birds. This, I think, is the message and narrative the public connects to most, the idea of the importance of this ridge as a migratory highway.	7/21/2022 3:34 PM
7	Don't destroy agriculture. CO2 is good. I have 2 barns with dozens of barn swallows. Come middle April, leave middle August. Lot if chem trails. Harmful to the environment and trees and vegation. Love to see them stop. Thanks and good luck.	7/20/2022 4:40 PM
8	It is such a large area I find it difficult to visualize the conservation goals.	7/20/2022 3:47 PM
9	Please feel free to reach out and interview the Berks County Planning Commission staff. Also stay tuned for the update and recommendations to the Berks County Greenway Park and Open Space plan.	7/20/2022 3:39 PM
10	None	7/20/2022 3:34 PM
11	Nope!	7/20/2022 2:53 PM
12	Thankful for the work done to date and supportive of future progress	7/19/2022 11:01 AM
13	I'd like to see what the strategic plan is for this group, so I know where fit in to the efforts. I'd suggest you reach out to the municipal governments along the top of Berks County who have a joint comprehensive plan that this kind of project could be incorporated into.	7/15/2022 11:01 AM
14	Thanks for your efforts and leadership!	7/13/2022 3:06 PM
15	Funding will be key. Immediate focus should be on finding effective ways to access state grant monies that have recently become available	7/12/2022 4:32 PM
16	thanks for all of your work	7/12/2022 7:52 AM
17	Thank you for reaching out!	7/11/2022 9:35 PM
18	Just. THANK YOU	7/11/2022 11:45 AM
19	Keep up the good work!	7/11/2022 10:23 AM
20	We have been working on land protection in Berks as well Berks Nature. I assume you will have a land protection goal. We are trying to protect 50% of the SHCL and it includes all of Berks which you have a portion of in the KRCL as well. I would like to know what folks do across the landscape and its relation to the Appalachian Trail and its function as a landscape overall. I really don't much of how one would travel across the ridge to see it. Its not on my radar for recreation myself, but I know it for a forested area.	7/11/2022 10:06 AM
21	I am connected to the the Kittatinny Ridge through the work of DCNR but I also live in Schuylkill County and want to be an advocate where possible as a resident of this County. I have done work in many townships that lie along the ridge. We need to educate and	7/11/2022 8:44 AM

## Conservation Plan for the Kittatinny Ridge Landscape

communicate more to the elected officials of how important the view shed is and to protect it when and where possible.

22	Please send me a pdf and/or powerpoint to review.	7/8/2022 7:36 PM
23	Engage LAndowners .	7/8/2022 6:33 PM
24	No	7/8/2022 5:49 PM
25	Just Awesomeness	7/8/2022 12:23 PM

## Appendix C

### KRCL Virtual Conservation Plan Summit - List of Participants

Full Name	Organization/Company/Affiliation
Katie Hess	Appalachian Trail Conservancy
Laura Belleville	Appalachian Trail Conservancy
Cassidy Lord	Appalachian Trail Conservancy
Katie Allen	Appalachian Trail Conservancy
Claire Jantz	Shippensburg University
Rachel Lettre	ATC
Nathan Pritchard	Northampton County Conservation District
Rob Neitz	DCNR- Jacobsburg EE Center
Stephanie Williams	Cumberland County Planning Department
Barbara Ritzheimer	Schuylkill County Conservancy
Thomas Ford	DCNR
Kathy L Henderson	Carbon Chamber and Economic Development
Charles Richard Ogle	Aquashicola Pohopoco Watershed Conservancy
Bill Allis	The Bower
Richard Gardner	none
Deborah Woodard	Pennsylvania Habitat Connectivity
Diane Husic	Lehigh Gap Nature Center/Moravian University
Anita M Collins	Lehigh Gap Nature Center, Vice-Pres, Board
Alexa Korber	Tri-County Regional Planning Commission
Laurie Goodrich	Hawk Mountain
Anna Yelk	Central PA Conservancy
Charles	APWC
Laurie Jean Goodrich	Hawk Mountain Sanctuary
Kathy L Henderson	Carbon Chamber and Economic Development
Paul Zeph	DCNR State Parks
Jim Vogt	Aquashicola/ Pohopoco Watershed Consevancy
Mark Palerino	PA DCNR
Nathan Pritchard	Northampton County Conservation District
	Plainfield Township Planning Commission, Bushkill Stream Conservancy (BSC), Watershed Coalition of the Lehigh Valley (WCLV), Northampton County Karst Geology Advisory Council (KGAC)
Terry L. Kleintop	
Barry Webb	Blue Mountain Eagle Climbing Club
Brook Lenker	Keystone Trails Association
Christine R. Dettore	PA DCNR
Sarah Chudnovsky	Berks Nature
Deborah Woodard	Penn Habitat Connectivity & Vermont Law School
Ann Hutchinson	Natural Lands
Todd Sampsell	Natural Lands
britny lynn kondravy	Delaware and Lehigh National Heritage Corridor
Josh VanBrakle	Department of Conservation and Natural Resources
Ellen Lott	The Nature Conservancy
Paul	DCNR Bureau of State Parks



Jack Poole	Lei Builders
Cathy Haffner	Pennsylvania Game Commission
Matthew Schnupp	Game Commission
Lisa Williams	PA Game Commission
Justin Vreeland	PA Game Commission
Teresa Mackey	Lehigh Valley Planning Commission
Timothy Wenrich	PA Game Commission
Kate Raman	Natural Lands
Anna Yelk	Central PA Conservancy
Laura Belleville	Appalachian Trail Conservancy
Barbara Ritzheimer	Schuylkill County Conservancy
Kristen Hand	PA Geological Survey
Lauren Foltz	Lehigh Gap Nature Center
Peter G. Saenger	Lehigh Valley Audubon Society
Meredith Hill	Padcnr
Charles R Ogle	APWC
Anita M Collins	Lehigh Gap Nature Center
Jean Richardson	Kirkridge
Laura Waits	Sync Recovery Community
Jim Vogt	Aquashicola/Pohopoco Watershed Conservancy
Richard Gardner	self
Christine R. Dettore	PA DCNR
Gary David Bloss	Josie Porter Farm
Claire Jantz	Shippensburg University
Frank Grumbine	PHMC
Barbara green	Blue Mountain Resort
Sally Zaino	Manada Conservancy
Dawn Gorham	Wildlands Conservancy
Megan McNish	PA SHPO
N. Scott Parkhill	Audubon Mid-Atlantic
Caitlin Lucas	Franklin County Conservation District
James Hook	Conococheague Audubon
Per S Hagen	Synchronicity Recovery Foundation
Jennifer Dunlap	Manada Conservancy
Edward Franco	Cumberland County Planning Commission Member
Kelsey Boyd	Natural Lands
Alexandria Bowling	Appalachian Audubon Society
Thomas P West	Greener Planning, LLC

# Appendix D

## May Community Meetings

### Final Participant List

#### KRCL Conservation Plan

#### Schedule:

- Tuesday, May 10th - 6-8 PM - Community Meeting #1 - Leighton Outdoor Center, Leighton, PA
- Wednesday, May 11th - 9-11 AM - Community Meeting #2 - Hawk Mountain, Kempton, PA
- Wednesday, May 11th - 2-4 PM - Community Meeting #3 - Wildwood Park Nature Center, Harrisburg, PA
- Thursday, May 12th - 10-12 PM - Community Meeting #4 - Cumberland County Planning Commission, Carlisle, PA

#### Community Meeting #1 - Leighton, PA

- Leighton Outdoor Center - Jerry Mcaward
- Northampton County Conservation District - Nathan Pritchard -
- Allentown Environmental Advisory Council - Tinku
- Sync Recovery Center - Laura Waits
- Bushkill Township - Kerry Rider - Open Space Coordinator
- Wildlands Conservancy/Carbon County Chamber's Nature and Commerce Committee - Dennis Demara
- Wildlands Conservancy – Tom Kerr
- Appalachian Mountain Club - Cait Handlin - Trail Coordinator -
- Paula Urhin - Allentown Hiking Club

#### Community Meeting #2 - Kempton, PA

- Berks Area Mountain Bike Association - Carla Quandel
- Schuylkill County Planning Commission - Susan Smith
- Schuylkill County Conservation District - Jenna St Clair
- Schuylkill County Government - Bryce Buck
- Reading Environmental Advisory Council/Schuylkill River Greenways National Heritage Area - Sarah Crothers
- Berks Nature - Sarah Chudnovsky
- Blue Mountain Eagle Climbing Club - Dave Bailey
- Albany Township Environmental Advisory Council - Tom Kerry

### **Community Meeting #3 - Harrisburg,, PA**

- Wildwood Park and Olewine Nature Center - Chris Rebert
- Keystone Trails Association - Brooke Lenker
- PA DCNR Outdoor Recreation Director - Nathan Reigner
- Appalachian Trail Conservancy (former?) - Karen Lutz -
- Pennsylvania Historic Commission - Frank Grumbine
- Tri-County Community Action Program - Dave Clapsaddle
- PA DCNR - Director of Diversity, Equity, Justice, and Inclusion - Emily Hendrickson
- Monada Conservancy - Sally Zaino
- Dauphin County Parks and Recreation - Anthea Stebbins
- Lebanon Valley Conservancy - Jon Scach

### **Community Meeting #4 - Carlisle, PA**

- Cumberland County Planning Commission - Stephanie Williams
- Shippensburg University - Claire Jantz
- Penn State Extension Watershed Steward Program Director - Holly Smith
- Meranda Haywood - Friends of Clarks Ferry Tavern (Historical Society of Perry County)
- Katie Hess - Appalachian Trail Conservancy and South Mountain Partnership
- Edward Franco - Lower Frankford Township Planning Committee (also part of the Cumberland County Open Space Plan update)
- Central PA Conservancy - Laura Dancko
- Silver Spring Township - Laura Brown (Supervisor and Land Protection Board)

## Appendix E

### KRCL Conservation Plan Raw Community Meeting Notes

#### Community Meeting #1 - Leighton, PA

- Need for emerging underserved communities in environmental protection – Allentown EC
- Helping people feel safe and comfortable in outdoor spaces; creating stewards of nature/culture of stewardship volunteers/civic service – conservation and outdoor work environmental education programming.
  - Consider nature centers – create cumulation/standard programming to talk about the ridge.
- Parking mostly created by game commission
- Identify low hanging fruit to bring awareness to the ridge.
- County-wide or multi partner gatherings to coordinate KRCL programming
- How to raise awareness of ridge among the average people who may not engage with nature.
- Park RX?
  - Mental health benefits of nature and the outdoors – well established
- Trail connections are very important to serve this need
  - Creating a network of trail opportunities
- Equity and accessibility assessment
  - PA Highlands Trail: 16 trail segments, community outreach and physical access
    - ADA guidelines/criteria – how accessible are trails to different people?
  - Connecting with ET communities
  - Currently in data collection phase
- Environmental education centers, parks and rec departments, represent good partners
- Challenge-running the plan to the ground – who are the organizations doing the work in the communities and how do we engage them in this effort?
- How do you get people to engage in these efforts?
  - Volunteer etc., donate \$, vote, etc.
- Demand for open space, has been increasing post COVID
- Connect to people – whats important to them?
- For many the “feel good fuzzies” are not attracting volunteers
  - What will get people to get involved?
- Viewshed concerns of development in Northampton County
  - Often undeveloped land is seen as not productive or vacant rather than open space
  - Messaging and education of **value** of open space and natural resources
- Amenities and (bi-lingual) signage on the trail can communicate story of how it came to be
- Signage through communities pointing to trails, outdoor spaces, recreational resources.
- What will “move the needle”?
- Educate Borough Leaders, local officials of the value of ridge



- Events and programming to raise awareness of ridge
- Sounds like audience may be multi-tiered with different audience – whose delivery of this message?
  - Keep locally and find “local ambassadors” to help communicate this message
- How do we engage people in a way that’s not intrusive but reminds people of stewardship, etc.
  - QR code, phone number, address, at trailhead in parking lot to show appreciation, participation, etc.
  - Need for quantifying efforts, making engagement easy and convenient
  - Consider various age groups and peoples in designing outreach mechanisms.
- **Hancock Bouldering Coalition**
- Spray paint / vandalism an issue
- Engage people depending what they’re interested in
- APATHY – tough nut to crack
- The trails don’t maintain themselves
- Communicating to the “non-choir” what are the hot buttons?
- Don’t teach civics anymore – different programming for individuals
- Doesn’t need to be a party and political thing
- Event or series of events for decision makers
  - Educator about threats to open space, what they can do
- Warehouse developers
  - Bushkill encouraged to build trails to connect to other open space
- Bridging the gap between communities furthest from the ridge and the value of ridge
  - Water resources, clean water access, importance of water for people and wildlife, riparian corridors and watershed mentality
- **People, physical** connection with landscape
  - Interested user groups – tension arises among recreation groups, but opportunities may exist to collaborate
- South Central PA rock climbing group does stewardship work
- On a nice day, so many recreation users, many don’t know how much care goes into shared recreation resources
  - No hook to “belong”
- Allegheny greenway –
  - bring multiple user groups together at quarterly and annual meetings
  - great opportunity for connecting with each other
  - outreach effort – need municipal and state engagement as well
- action items that individual partners can do
  - specific strategies, metrics and dashboard
  - who is going to do what? Who are they players?
- Leighton Outdoor Center
  - Revolutionize outreach
    - Breweries, stewardship along the way
    - Competition, games, etc.

- Balance increasing trail use with increasing trail stewardship
- Bringing people together by a simple act
- National Trails Day
- Possible actions:
  - Standardize aspects of Nature Centers across KRCL
  - Standardize communications on trails and kiosks across KRCL
  - Consider status update in 5-10 years
- Find ways to value conserved land to help communicate the importance of open space
- Use water as a way to help communicate importance of open space
- Park Rx – mental health connection with open space and nature
- AMC Equity & Inclusion Report (should be done by end of year 2022)
- Trail Owners Council
  - Outreach efforts for user group conversations
  - Outlet for communication between organizations (needs and resources)
  - Organizational communication strategy for bringing in new partners
  - Any lessons learned from Trout Unlimited in their communication strategies?
- Native stone structures
  - Northampton County Parks
  - Jim Wilson
    - [jwilson@northamptoncounty.org](mailto:jwilson@northamptoncounty.org)
- Communication is key
  - Between organizations
  - From organizations to users/public
- Lehigh Valley Watershed Conference (March 2023)

## **Community Meeting #2 - Kempton, PA**

1. Water resources
  - Falls in “ecological” and social example: clean water
  - Ecology/environmental quality of ridge impacts low-lying areas/communities
  - Mountain Biking Negative perception – Bells Area mnt bike
  - \_\_\_\_\_ on building partnerships with land protection organizations, land managers, municipalities, etc.
    - Preserve quality and quantity of open space and recreation resources
    - Trail maintenance, communication with land managers / days
    - Bella Area – Big mnt. Bike community
    - Low impact use
    - Volunteers – can be hit or miss – calendar and regularly scheduled days can help
    - LMBA – other organizations in KRCL
      - ◇ SMBA (Harrisburg?)
    - Bronze level CLA – requires increasing access to outdoors, exposing folks to outdoor rec?
2. Mnt. Penn – trail / solutions – BAMBC

- Balancing increasing public access with adequate stewardship of natural lands
  - Schuylkill County planning – comprehensive planning – 2006 plan outdated
    - ◊ Greenways are important – KRCL conservation plan can be incorporated into an update
  - ECA's (we can serve A) – represent an excellent partner in this work
    - ◊ Educational programming, adjusting decision makers on value of nature
    - ◊ Promote expanding EAC's along ridge
  - Family forest carbon program – PA
  - Mapping viewsheds
    - ◊ Appalachian Trail priorities viewsheds conservancy
    - ◊ Laurie – can share
    - ◊ Also overlaid ecological integrity (buffers and connectivity)
  - How important mountain/ridge is to all watersheds
    - ◊ Healthy forested headwaters creates clean water in lower elevations – should be communicated
  - Not as much communication between groups
  - So busy doing the work, no time to talk about it
  - Where the \$ comes from impacts this
  - Schuylkill County – poorer, older, drugs – **survival** supersedes education and awareness to a lot of people
3. Need broader established protections to determine what we don't want to happen, promote what we do
- Farmland preservation, invasive species management (some regional efforts underway)
  - tying into broader programs
  - Conservation District also does permitting – stormwater, etc.
    - ◊ What regulating protection could be in place to protect natural resources?
  - 1 county park in Schuylkill County
    - ◊ environmental education and recreation increasing engagement and messaging can be hard
  - State level – Agricultural trajectory
    - ◊ How hard it is to get farmland conserved near the ridge
    - ◊ Ridge soils don't rank high enough according to state standards – still available though
  - Mixed parcels of farm and forest have challenges getting into state farmland protection program – not ranking high enough
    - ◊ The \$ is there – the rules are a huge barrier
  - Agricultural parcels next to ridge are under highest development pressures
  - Do other conservation landscapes have this same issue?
4. Identify farmland parcels as best opportunity for restoration in the future

- Rigidity of funding structure is a HUGE barrier, not flexible to accommodate local needs
  - Need flexible guidelines
  - Public access requirement is tough – even as conserved parcels with solely high ecological values is beneficial to public
  - Highlighting regulatory tools municipalities can use
    - ◊ Model ordinances
  - Conservation has to think fast
  - Schuylkill County conservation district engaged in floodplain restoration areas
  - Highlighting importance of economic development and conservation
    - ◊ Establishing a sustainable economy – how can the regulations and permitting process make warehouses accountable? Preserve natural resources through solid regulations and ordinances
    - ◊ How do we evaluate the actual loss of the asset?
    - ◊ Direct development away from critical natural resources and make developers follow performance standards
    - ◊ How do we create win-wins?
  - Development proposals go to EACs first
5. Regulations play an important role in steering development
- Townships and ECA's have created innovative solutions for specific local projects – working around complex structures and processes
  - What are challenges facing forest health along ridge? (aside from development) – habitat fragmentation
  - Using GIS analysis to zoom out – are we meeting our goals?
  - What are the forest management needs in the CL?
    - ◊ What are biggest aspects to consider?
  - Importance of monitoring success of landscape scale conservation efforts
  - Berks and Schuylkill area with highest improvement related to habitat fragmentation – Hawk Mountain
  - Strength is in the municipal level
  - Climate resilient landscape, migratory bird way
    - ◊ Important in message, all control is municipal
    - ◊ Municipalities are such important players
  - Social infrastructure is important to get people together
    - ◊ Connecting partners, others doing the work, networking opportunities
    - ◊ Sharing solutions to common challenges
6. Use for zoom gatherings, create opportunities for gathering and learning among partners
- Wind development? Emerging issue
  - AT along the ridge – could help deter wind development



- Lessons from other CL's
- Sentinel landscape designation - KRCL will have a full-time outreach coordinator
  - ◊ Could help build additional capacity
- County level identities run deep – barriers to mutual understanding, different world views
- Sub regions would be helpful
  - ◊ Counties have different challenges, characteristics, etc.
  - ◊ Cultural attributes, geography, etc. differ among areas of the ridge
- Natural lands – did maps for Albany township
  - ◊ Municipal outreach
- IMBA certification process
  - Inclusive for all trail users
- Hawk Mtn viewshed priority areas to overlay
- Headwater streams and greater value to landscape
- Warehouse development pressure sometimes on prime agricultural soils
- Ag preservation programs don't work for specific lands (ag & forests)
  - Funding regulations are inflexible
  - Certain properties don't rank high enough to be included because Ag land has some forest
  - Ag lands that abut ridge are under most development pressure
  - Reach out to other CL's about ag preservation and development pressures
  - Consider redevelopment of old mining lands for development
- Some pressure from wind development...but it's a matter of time (emerging issue)
  - AT may help battle against wind
- Possible actions:
  - Encourage more Environmental Action Councils across KRCL
  - Map viewsheds
    - From ridge down and from low elevations up to the ridge
  - Identify model regulatory ordinances that address warehouse development issues
    - Less ecological impact, performance standards, etc
    - Need to be standardized across landscape or development will just go elsewhere
  - Pursue Sentinel Landscape Designation

### **Community Meeting #3 - Harrisburg, PA**

1. Relationship – land trust partners with county partners
  - Farmland protection initiative – easements
  - Cumberland county
    - ◊ Updating open space plan this year
    - ◊ Elevate topic of ridge conservation

- Challenge for townships – working with private landowners, negative perception of conservation
- CPC – farmland has not been primary area of interest
  - ◊ New program creates opportunities to ask how much farmland they want to preserve
- Penn State Watershed Steward Program – education, water stewardship, riparian buffer projects, etc.
  - ◊ **Prime** viewsheds
- Marrying historical and natural assets for tourism and community development
- ATC future vision:
  - ◊ Expanding to landscape
  - ◊ Conservation – integral component
  - ◊ ATC – new inventory data, historic resources data
  - ◊ PA is a huge focus in future
  - ◊ Synergy between South Mnt. And KRCL

## 2. Tuscarora Trail

- “orphan child” not recognized as much as the AT
- ATC does not oversee this trail
- Group that manages Tuscarora trail?
- Letter Kenny
  - ◊ programs to explore
  - ◊ grassland restoration, etc.
- PA Game Commission
  - ◊ Building a collaborative from Letter Kenny and Michaux across valley – [look into this](#)
- Group here today
  - ◊ overlap in work of individuals master watershed and gardener group – communication and outreach
- K Ridge 2<sup>nd</sup> priority:
  - ◊ On project selection criteria for the central PA conservancy
  - ◊ Taking a more strategic approach to conservation
  - ◊ Public access, connectivity, riparian buffers, are other important criteria
- Financial aspects of how land is preserved [important to understand](#)
- Land trusts (CPC) are trying to do more purchase easements – most of the time they’re donation based
- In PA, landowner asks what do I get for conserving their land?
- CPC trying to be more restrictive of timbering on conserved lands

## 3. CPC – advocating for timbering only for ecological reasons

- Public access can be a barrier for some private landowners to conserve land (if a requirement)

- Acknowledging the culture that exists around conservation
  - Issue for land trusts – old easements/language used
  - Grant funding is going to be crucial to increase purchase easements over donation
  - Rye township
    - ◊ Development of ridge produced major impacts for this community
    - ◊ Stormwater, water service, aesthetics
  - Limitations with volunteer decision makers – less education on these issues
  - Moving the needle on these issues requires civic engagement in local decisions
  - What do people care about? Families, communities, the ridge, hunting, fishing, water, tax revenue, etc.
  - Use nature rather than ecology
  - Intentional approach/strategy for communications to various audience
    - ◊ Less jargon, more focus on their values
  - Identify what **is** relevant to people
4. Some people are very skeptical and untrusting of governmental agencies
- MS4 – focus on this in some presentations doesn't apply to some townships
    - ◊ South Mountain partnership has been received because it feels local
    - ◊ N. top of blue ridge – species migration and climate resistance
  - Desire to hear about what's important in a local context
  - Western end of county – tie into wildlife valley rather than Chesapeake Bay, etc.
  - Different communication materials for different audiences
  - How valuable is the ridges designation as migratory flyway to communities on the ridge? Only to small cross section
  - Fishing and hunting activities still strong
  - Mini grant opportunity – turkey habitat
  - ATC – can provide private funds to flexible mini grant funding (less bureaucratic)
  - Is there value in creating separate nonprofit to increase funding flexibility and achieve mission more cohesively
5. Localizing other communications
- rely on other neighboring conservation landscapes to target messaging (South Mountain, Schuylkill Highlands)
  - challenge in Cumberland County
    - ◊ smaller tracts available
    - ◊ makes conservation more challenging

- nonprofit umbrella, fundraising, etc. requires dedicated staff to put time, money, and resources into initiative
- sentinel landscape would provide dedicated outreach person
- large amount of Amish, etc. landowners west of Cumberland County
  - ◊ mostly farmers and agriculture oriented folks
  - ◊ this is some precedent for this
  - ◊ American Farmland Trust – has done some of this relative building
- 2 big pieces
  - ◊ Local communication to landowners, where does the \$ come from?
  - ◊ Need – explore funding strategy building political will (or win)
- Watershed Steward Program and still exploring how best to work with private landowners
  - ◊ Riparian buffer expansion, presentation, restoration
  - ◊ Riparian ranger / farmer relationships
- Getting the word out about the KRLC as a whole
- Active conservation groups throughout all counties
- Frame the initiative to others just getting started and that this should be a long term initiative to really yield results
  - ◊ Especially identifying what partners can expect
- May be limited knowledge of understanding of landscape conservation as a whole
- Move at the speed of trust
- How to approach county commissioners
  - ◊ getting buy in from them and township supervisors
  - ◊ carbon county best example
  - ◊ could this be implemented in Cumberland County
  - ◊ have local officials host workshop – local ambassadors important to receiving the message
  - ◊ county planning can also play a role
  - ◊ increase county and local ownership of this idea and strategy
- land protection must be balanced with Zoning/Regulatory improvements to direct development and guide standards
- PMEI – Municipal tranny
- County provides staff/capacity to townships
- Consider state regulations for wetlands, floodplain, etc.
  - ◊ Permit criteria
  - ◊ Limited buffer requirements for projects



- Wetlands, steep slopes are less developable anyway – could this help drive decision makers?
- Where the Conservation Planning process leaves off, the municipal work begins
- Try to forecast recreation needs for 50 years in the future
  - Consider needs/infrastructure in future
  - Transportation needs
  - Who will be recreating?
- Privacy concerns Re: recreation access on private lands
- Consider ag soils in ecological component as defense against warehouse development
- Paxton Creek and key watersheds
  - Sediment from headwaters
- Communication through different lenses is vital
- Psychological and emotional connections to ridge could be valuable communication strategies
- Examples of future vision with bad planning
- Demonstrate economic benefit from open space that feeds into municipal impact
  - Are there examples of municipalities or counties that have benefitted economically from conserved spaces?
- Possible actions:
  - Consider mapping viewsheds
    - From ridge down and from low elevations up to the ridge
  - Make county planning documents more impactful at municipal scale
  - Make a space that maintains openness to encourage organizations to be part of the process and landscape into the future

#### **Community Meeting #4 - Carlisle, PA**

- Help funding the right words to compel to more with differing views, local officials, etc.
  - ◇ Communicating the vision of the future of the ridge – visual and telling the story
- 2050 – considering the next generation municipalities sometimes don't know what resources they have in their backyard
- This plan should allow for many people to align their interests
- In place, we can't find out futures, economic dev. Ecosystem services, etc.
- Solution – implementation – work with partner organizations to build capacity
  - ◇ Ex: land trusts see value of additional transportation, they don't have time to coordinate that but it's a need
- Economic valuation of potential open space being conserved
- Community planning – how can we better communicate these concepts to others
- How can we better communicate/collaborate with urban communities and neighborhoods?
- Watershed context – headwaters start at the ridge- highlight key watersheds in plan
- Key issues – sedimentation – riparian corridors

- Need to be kept in tact
- Identifying multi-functional opportunities could increase sources of funding that apply to projects
- Partnerships and collaboration and coordinated planning are critical pieces to protect natural lands
- Some communities are motivated by MS4 permit compliance (how to achieve other goals and projects through singular efforts)
- Vision and plan needs to have broad reach-businesses community municipalities – other diverse partners
  - ◊ Engaging many types of people and groups
- The ridge is KEY to those who live in central PA
  - ◊ Need to bring this aspect of the ridge (its definition, identity, etc.) in the plan
- Intellectual and emotional connection to the ridge, mountains, and landscape **SO important!**
- Conservation landscape more than forests and streams its also communities, identity sense of place, cultures
- How can this be relayed to municipalities to trickle down through decision making, regulations, local capacity
- Agricultural resources and soil types – needs to be highlighted in plan – HIGH development pressure
- Municipal outreach is KEY
- County planning is a good partner in this work
- Education and raising awareness is important
- Municipal board turnover is a tough barrier for conservation outreach and education
- Could counties get more teeth?
- Focus on what people care about rather than jargon, regs, etc.
- Land trusts have their own conservation strategic plans
  - ◊ Include “social factors: and prioritization of lands that could provide lands for traditionally underserved populations
- What kind of recreation will PA need in 2050?
- Understanding – demographics, development patterns, populations, cultures, projections, etc. – to better plan for future
- Need – tools to assist in the work
- Many different landowners in each CL – own perspectives and experiences
- Many landowners contiguous to the ridge
- Transportation – important to get people to natural landscape
- Strategy needs to be well thought out for connectivity (trails, habitat, etc.)
- Trail connectivity – challenge related to working with private landowners at times
- Harrisburg projects
  - ◊ Abandoned buildings – who owns the buildings?

- ◇ People from away – uses it as a dumping site
  - ◇ “land for everyone” but not
  - ◇ Not feeling ownership of those spaces – disconnect between land we should protect vs. land we feel collective responsibility
  - ◇ More partnership and education – politics needs to play a role here – WHO has ownership and access to land? Who is making decision? What is the motivation behind partnering?
- Demonstrate/showcase economic benefit nature
- How can projects be multi-functional? Meet peoples need AND protect environment?
  - ◇ Housing, green jobs, etc.
- Importance of building trust and meaningful relationships
- Resource, experience, administration
- Where administrative linkages can occur
- Carbon county – excellent success story
- Keystone trails – trail maintenance, volunteers, outings – getting people into OUR trails – engaged in AT trail guide

Zak notes:

- Viewsheds important regardless of whether people recognize it
- ATC landscape conservation analysis
  - Katie Hess – maintain connection
- Pressure on AT in Pennsylvania...Tuscarora Trail considering to be alternate route to alleviate some pressure
- South Mountain – lots of collaborative efforts with lots of community contact
- Forestry – benefits vs negatives – what is the net positive versus cultural values they have
- Public access is an issue (landowners don’t want it)
- Case study of negative development impact – Rye Township
- Case study of positive community involvement – Fulton County Conservation District
- Legacy could be a good communication tool
  - Family legacy
- Subregions could be very helpful considering differences across KRCL
  - “We don’t care what’s going on in the Lehigh Valley.”
- Intentionally communicate this Plan “is just getting started”
- Penn Education Management Institute – land use education
- Overlays:
  - Viewsheds, soils, and water