The state forest system of Pennsylvania, approximately 2.2 million acres of forest land, comprise 13 percent of the forested area in the commonwealth. The Bureau of Forestry is the steward of this land, and part of the bureau’s mission is to manage state forests under sound ecosystem management, to retain their wild character and maintain biological diversity while providing water, opportunities for low-density recreation, habitats for forest plants and animals, sustained yields of quality timber, and environmentally sound utilization of mineral resources. In 2016, the bureau revised its State Forest Resource Management Plan (SFRMP), which is the primary instrument that the bureau uses to plan, coordinate, and communicate its management of the state forest system. The SFRMP sets forth broad policies, as well as more focused goals and objectives about state forest resources and values, to ensure that the overarching goal of state forest management – ensuring sustainability – is achieved.
State forest management is a coordinated effort involving central office program areas and field staff in 20 forest districts located throughout Pennsylvania. Each district is responsible for managing wildland fire, destructive insects, and disease on all lands throughout the district – public and private. The district staff promote wild plant conservation and private forest land conservation and stewardship. The staff also provide for the protection, administration, and management of state forest lands within the district.

This Weiser State Forest Resource Management Plan provides an overview of the district and its operations on state forest land and sets forth a framework for future management of Weiser State Forest. The planning horizon for this District SFRMP is approximately 5-10 years, after which time it will be revised to reflect changing conditions and priorities.

The bureau also creates District Activity Plans that describe the management activities the bureau will take within each district that may affect the public’s use of state forest land. These are implementation plans that address how goals and objectives in the SFRMP and District SFRMPs are being achieved. The District Activity Plans are written at the start of each calendar year and revised mid-way through the year. They are posted on District webpages so that the public may review and comment upon them.

This Weiser SFRMP is comprised of a District Overview, a listing of District Priority Goals, and a collection of landscape management unit (LMU) plans, which are described further below.
District Overview

1) Location and Description

The Weiser State Forest is located in eastern Pennsylvania in Carbon, Columbia, Dauphin, Lebanon, Montour, Northumberland and Schuylkill Counties. It consists of 29,002 acres on thirteen forest tracts and numerous river islands up and down the Susquehanna River.

![Figure 1-1. Location of Weiser Forest District with state forest land (dark green).](image)

2) District Organization

The Weiser Forest District is one of the 20 state forest districts administered by the Pennsylvania Department of Conservation and Natural Resources, Bureau of Forestry. It comprises about 1.3% of the 2.2 million-acre state forest system. Within the bureau, the administrative responsibility of the Weiser Forest District is delegated to the District Forester, whose office is located at 16 Weiser Lane, Aristes, Pennsylvania 17920. The District Forester is responsible for executing all the sections of the SFRMP on state forest land. Two assistants help accomplish this mission. One assistant has the oversight for resource management activities including timber management and recreation (management/recreation forester), rural and community forestry (service foresters), and law enforcement (DCNR rangers). The second assistant has oversight of the wildfire program (fire foresters/forest fire supervisor specialist) and maintenance (forest maintenance supervisor, maintenance staff) on state forest. The Weiser Forest District is divided into four fire divisions: Bear...
Gap division covering Columbia, Montour and Northumberland counties, Locust Valley division covering Schuylkill county, Penn Forest division covering Carbon county and Haldeman division covering Dauphin and Lebanon counties. Following is an organizational chart of the Weiser Forest District staff:

Weiser Forest District Organizational Chart

3) Acquisition History
The Weiser Forest District has 29,002-acres of state forest lands in thirteen tracts and river islands. The Haldeman Tract containing 5,355-acres on the Broad Mountain in Jackson Township, Dauphin County. The original 3,353-acres was purchased for $5,030 by the Department of Forestry in 1902.
Parcels were added in 1917, 1953 and the latest addition of 767-acres in 1982.

The Haldeman Tract was named after Richard J. Haldeman, Member of Congress, 1871-1875, who presented "The First True Forestry Bill" to the 42nd Congress. It provided that 10% of the land shall be kept in timber or if not timber, shall be planted in timber. The bill was referred to the Committee on Agriculture, who reported favorably on it; however, the bill failed passage.

The Greenland Tract containing 2,977 acres in Jackson and Jefferson Townships in Dauphin County. The purchases were made in 1953 and 1963. A majority of this tract was purchased from the Borough of Lykens.

The Second Mountain Tract containing 2,888 acres on the Second Mountain in Schuylkill County. The purchases were made in 1963, 1968, and 1984. The majority of the tract was purchased from the County of Schuylkill.

The Taylorsville Tract containing 2,505 acres in Eldred Township, Schuylkill County. The purchases were made in 1951, 1956, and 1959.

The Jefferson Tract containing 2,034 acres on the Blue Mountain in South Manheim Township, Schuylkill County. This tract was purchased in 1955 from the Harry R. Carl Estate.

The Port Clinton Tract containing 1,449 acres on the Blue Mountain in West Brunswick Township, Schuylkill County and Windsor Township, Berks County. Like the Jefferson Tract, the Port Clinton Tract was purchased in 1955 from the Harry R. Carl Estate.

The Penn Forest Tract containing 958 acres in Penn Forest Township, Carbon County. The original tract contained 170 acres, which was purchased in 1928. This parcel was an internal holding surrounded by the Bethlehem Water Authority property and was traded to them for the present 958 acres just west of their property in 1948.

The Katzen-Moyer Tract containing 300 acres acquired in 1979 along the Appalachian Trail in Washington Township, Schuylkill County.

The Shubert Tract containing 63 acres. This tract was a gift to the Department of Forest and Waters in 1934 by the Blue Mountain Eagle Climbing Club.

The Sheets Island, which lies in the Susquehanna River just west of Harrisburg containing 25 acres. This island was purchased in September of 1979.

The Roaring Creek Tract was containing 9,021 acres acquired in 2003. This tract was purchased from Aqua Pennsylvania to conserve the watershed supplying the area with fresh water. This tract lies in southern Northumberland and Columbia counties and is the largest tract in the Weiser Forest District.

Byer's Island, which lies in the Susquehanna River south of Sunbury and acquired from Pennsylvania Power and Light Company (PPL) by the Northcentral Pennsylvania Conservancy to DCNR in March of 2007. This island tract is made up of six islands with Byer's Island being the largest at 131 acres the other islands (Big, Calf, Fishing, Little Sugar and Big Sugar) make up the rest of the 225 acres.

4) Historical Land Use and Disturbance

Man’s activities are mainly responsible for the current conditions of our forests. These activities include lumbering, iron production, coal production, railroading, and wildfires. The first settlers who moved into the mountainous areas were interested in the virgin timber. Lumbering was the first major industry from 1780 to 1850. Rafts to eastern coast communities floated the bulk of the lumber downstream.
The expanding iron industry, which utilized charcoal as the heating agent for iron smelting, consumed an increasing portion of the forest resource. As the wood resources south of the Blue Mountain were depleted, the charcoal industry moved into the areas of abundant wood supplies north of the Blue Mountain.

As the charcoal industry continued to move northward, it became more profitable to relocate the iron furnaces from the southern parts of Pennsylvania nearer to the charcoal industry of the Weiser District and import iron ore and limestone by canal boat. Charcoal iron manufacturing required vast and continuous resources of wood, and this trend continued until coal-fired iron furnaces were developed around 1885. Signs of old charcoal burning pits and mule haul roads are reminders of this past forest influence.

After the charcoal era, wood was needed for crossties in the construction of railroads and for prop supports in coal mining. The developing stands of small sized saw timber were ideal for producing railroad ties and mine props. Vast quantities of young timber were removed to satisfy the growth of the coal mining industry and railroad expansion.

The anthracite region in the Weiser Forest District includes the area north of the second mountain extending through the Broad Mountain to the Schuylkill County line near Nuremberg, and on the west from Loyalton in Dauphin County eastward to Jim Thorpe in Carbon County. As technology improved coal-mining equipment, the method changed from deep shafts to include strip mining. Strip mining requires laying open large areas of land to excavate the nearly vertical layers of coal, disturbing the contour of the earth’s surface and exposing poor soils for tree growth. The black colored culm banks left behind have abnormally high soil surface temperatures, which severely restricts seed germination. A commonly found species growing on the culm banks is gray birch (Betula populifolia). This pioneer species has tiny and numerous seeds easily dispersed by wind. Early scientists noted that the gray birch seeds, which germinated were the ones shaded by rocks on the culm banks. It can be easily noted that gray birch growing on these culm banks sites have a hooked shaped stem caused by the young seedling which had germinated in the shade growing past the rock and straightening out. Nature is slowly revegetating the moonscapes of strip mining common in the anthracite region through plant succession.

Wildfires have been a continuing and, perhaps, the most detrimental forest influence. Wildfire destroys the soils that developed over thousands of years and damages the growing trees causing disease and rot. Repeated wildfires have reduced the growth potential of many soils and much of the forests timber value. Tree injury, which can be difficult to detect, produces defects that severely degrade lumber quality. Early wildfires were caused by man’s illegal, misguided and careless use of fire, such as sets by berry pickers trying to produce berry crops, and hunters attempting to increase the deer population, or fires started by locomotives. In recent years, arson, careless debris burners, and children cause most of the wildfires. Wildfires led to the development of the forestry commission, which was the precursor of the present day Department of Environmental Resources, Bureau of Forestry.

5) Physiography and Geology

Most of the Weiser State Forest is located in the Ridge and Valley Providence. It is easily recognized by a regular arrangement of long, linear ridges and intervening valleys. The topography is the result of intensive folding of the rock units followed by a long period of erosion. The harder, more resistant rocks have formed the ridges, while streams have cut into the softer rocks to form valleys.
The ridges run in a northeast-southwest direction and are fairly flat-topped but narrow. The valleys parallel to the ridges are usually flat-bottomed as a result of being partially filled by material that washed outward from melting glaciers. Valleys, which cut across the ridges, are narrow and steep-walled.

Following is a detailed description developed by the Bureau of Topographic and Geologic Survey of the Physiographic Sections (Eco-Regions) contained in the Weiser State Forest. This information is located on the Bureau of Topographic and Geologic Survey's website, indicated by the links below.

Glaciated Pocono Plateau Section:
http://www.dcnr.state.pa.us/topogeo/map13/13gpoc.htm

The Glaciated Pocono Plateau Section is a broad upland surrounded on all but its western side by a steep to moderately steep slope that marks the boundary with an adjacent Section. Mainly tough, erosion resistant sandstones that are relatively flat lying underlie the upland. Relief on the upland is generally less than 200 feet, but can be as much as 600 feet where small hills rise above the general level of the upland. Elevations on the upland range from 1,200 to 2,320 feet. Weather in this area can be severe. The upland is drained by several small streams that flow from the upland interior to and away from the margins. The low relief and relative smoothness of the upland surface results from both the flatness of the underlying rock and the scouring of the surface by glacial ice. The area was glaciated at least three different times in the past million years. In addition to erosion, the most recent glacier also left behind a variety of glacial deposits that occur on the surface of the upland. Particularly notable is the abundance of sandstone boulders that litter the surface in many places. Swamps and peat bogs have developed in small undrained depressions created by glacial scour and deposition.

The Section occurs in parts of Carbon, Luzerne, Monroe, Lackawanna, Pike, and Wayne Counties in Northeastern Pennsylvania.

Appalachian Mountain Section:
http://www.dcnr.state.pa.us/topogeo/map13/13ams.htm

The Appalachian Mountain Section consists of numerous, long, narrow mountain ridges separated by narrow to wide valleys (lowlands). The tops of the ridges are always several hundred feet higher than the adjacent valley, and some ridges are more than a thousand feet higher than the adjacent valley. Very tough sandstones occur at the crests of the ridges. Relatively soft shales and siltstones occur in most of the lowlands. Some of the lowlands are underlain by limestone and dolomite. At one time many millions of years ago the rocks in this Section were flat lying. Then they were compressed toward the northwest by immense pressure coming from the southeast. This pressure buckled the
rocks into long, linear folds called anticlines (upward-buckled rocks) and synclines (downward-buckled rocks). Erosion of the rocks in these adjacent anticlines and synclines created the ridges and valleys of the Appalachian Mountain Section. The shales and siltstones are eroded more easily than the sandstones. Thus, as erosion proceeds, the slowly eroded sandstones form ridges while the shales and siltstones are eroded more rapidly to form the lowlands.

The Appalachian Mountain Section occurs in central Pennsylvania where it is the topographic expression in all or parts of 22 counties. The Section occurs as a northeast-southwest, band that curves from Bedford and Fulton Counties in the southwest to Lackawanna, Carbon, Monroe, and Pike Counties in the northeast. The Section includes all of Huntingdon, Mifflin, Juniata, Perry, Snyder, Union, Northumberland, Montour, and Schuylkill Counties.

6) Eco-regions
The Weiser State Forest lies primarily in the Ridge and Valley Ecological region with a small portion in the Glaciated Pocono Mountain Eco-region. Upland surface having low, linear to rounded hills, strip mines, and waste piles; upland surrounded by an escarpment, a valley, and a mountain rim characterize the Ridge and Valley region. Local relief in the Ridge and Valley Region ranges from 101 up to 1,000 feet and elevations range from approximately 320 feet to 2,094 feet. Underlying rock types include sandstone, siltstone, conglomerate, and anthracite. This region has trellis drainage patterns.

Ecological Unit Delineations
The Weiser State Forest lies in the following Ecological Unit Delineations:

A. Eco-Regions (DCNR, Bureau of Forestry):
   Ridge & Valley
   Glaciated Pocono Plateau

B. Physiographic Province (DCNR, Bureau of Topographic and Geologic Survey):
   Ridge & Valley Province
   Appalachian Plateau Province

C. Physiographic Section (DCNR, Bureau of Topographic and Geologic Survey):
   Glaciated Pocono Plateau Section
   Appalachian Mountain Section

D. ECOMAP Sub-section (USDA Forest Service):
   Ridge & Valley Sub-section
   Glaciated Pocono Plateau Sub-section
7) Conservation Landscapes

Throughout Pennsylvania, seven large regions are working together to drive strategic investment and actions around sustainability, conservation, community revitalization, and recreational projects. Known as conservation landscapes (Figure 7-1), these collaborations are found in regions where there are strong natural assets, local readiness and buy-in, and state-level investment and support. Founded on the regions’ sense of place and resource values, conservation landscapes motivate citizens and elected officials to take on the challenge of effective land use planning, investment, civic engagement, and revitalization.

Figure 7-1: The seven Conservation Landscapes in Pennsylvania. The Pocono Forest and Waters is situated in the northeast part of the state and the Schuylkill Highlands is situated in the southeast part of the state.
Driven by the values of conservation, sustainability, and community revitalization, conservation landscapes are built on several ingredients:

- **Presence of DCNR-owned lands** -- Large blocks of state parks and forests provide the foundation for the landscape and a staffing presence
- **Sense of place** -- Regions with a sense of place and identity in many cases are based on shared landscape not political boundaries
- **Readiness** -- Often driven by opportunity or threats such as changes in the economic base, depopulation, or sprawl
- **Engagement** -- Civic engagement process that brings people of the region together to identify common values and concerns
- **Strategic investments** -- State agencies with regional and statewide partners provide high-level leadership, financial support, and technical assistance to build better communities, to conserve identified values and to invest in “sustainable” economic development

There are currently seven conservation landscape partnerships within Pennsylvania. The Weiser State Forest lies within the Pocono Forest and Waters Conservation Landscape, in the northeast part of the state. This landscape houses abundant natural resources, including the greatest concentration of wetlands in the state and large tracts of public and private forested lands, such as state and national forests and parks and private hunting clubs that were established in the past and still exist today. The natural lands in this landscape provide a sense of community, clean water, stormwater retention, clean air, and an array of outdoor recreation activities.

At the heart of the Pocono Forest and Waters region is:

- **Conserved land.** 54,536 acres of State Parks and 85,239 acres of State Forests
- **Trails.** Miles of recreational trails weave their way through the landscape, providing hours or days rewards.
- **Water.** There are 4,700 miles of streams and about 74 square miles of lakes and ponds in this region.
  The natural lands in this landscape provide a sense of community, clean water, stormwater retention, clean air, and an array of outdoor recreation activities.

The vision of the Pocono Forests and Waters Conservation Landscape is to conserve the natural environment and enhance the quality of life by sustaining vital natural resources.
Since the Weiser Forest District is located in the ridge and valley eco-region the predominate land cover is deciduous forest. With the many ridges found in the region when the area was settled most of the homesteads were located in the valleys making agricultural fields the next largest land cover within the district. Over time as industry grew in the region so did the population and small towns started to speckle the landscape as more forestland was cleared for agriculture, industrial use and towns.
If you refer to Figure 8-3 you will see there are vast areas of public land within the Weiser Forest District. The majority of the public land within the district is state game lands where they have vast ownership along Blue Mountain, Peters Mountain and Line Mountain. The other public lands within the district are eleven state parks: Hickory Run, Lehigh Gorge, Beltsville, Tuscarora, Locust Lake, Swatara, Memorial, Joseph E. Ibberson Conservation Area, Boyd Big Tree Conservation Area, Milton, and Shikellamy.

In the extreme eastern end of the Weiser Forest District, in Carbon County, the City of Bethlehem has entered into a conservation easement with The Nature Conservancy (TNC). The agreement will stand to protect the City’s land for sixty years. This parcel attaches to the eastern and southern portions of Penn Forest.
Figure 8-3. Public/protected lands within entire district.
9) Population Centers

Within the Weiser Forest District there are few population centers but none are adjacent to state forest land. The largest population center within the district is Harrisburg located in the southwestern corner of the district in Dauphin county which is about an hour drive to the closest state forest land located in northern Dauphin county. Some of the other larger population centers within the district are Pottsville in Schuylkill county, Lebanon in Lebanon county, Bloomsburg in Columbia county and Jim Thorpe in Carbon county. With the exception on Pottsville and Jim Thorpe most residents of these larger population centers have at least a half hour drive or more to get to the nearest state forest land.
Figure 9-1. Map of public lands, population centers, and land use types (aggregated from National Land Cover Database).
The Weiser State Forest are dominated by the oak forest type with the main composition of chestnut and northern red oak. The majority of the forest stands are of medium to poor quality due to the over harvesting of these forest in decades past for charcoal or mine props used in the extraction of anthracite coal. Another major reason for the poor quality of timber is the numerous devastating wildland fires that occurred on the landscape in the early 1900’s up to the 1950’s. The majority of the forest stands are seventy years old or older and have not had any timber management work since they were last harvested for mine props or charcoal. Where there is disturbance to the forest it is regenerating with undesirable species of black gum, black birch and red maple.
Currently there are no OGM development in the district. Since the Weiser Forest District is located in the anthracite coal region there are abandon coal mines on state forest land. The majority of the old mine remnants are strip mining pits but there are some deep mines both are found on the Roaring Creek tract.

The district has been working with Pennsylvania Environmental Council beginning in 2015 to conduct site preparation and planting on formerly stripped mined sites in Columbia County. Annually, reclamation work has been completed on approximately 4.6 acres, totaling 13.8 acres. Conservation Volunteers and professional planters have planted approximately 1000 early successional species per acre or 13,559 seedlings. Site preparation is underway and will be concluded by November 23, 2018 for 8.6 acres. Following site preparation, planting will occur in April 2019. The district is also working with a local coal miner to reclain an area where culm or coal waste was deposited for more than one hundred years. The contractor is screening out the coal that was missed and the rest of the rock is being used to construct a parking lot and access road which will access over 35 miles of hiking and mountain biking trails.
12) Water

a) Major Watersheds
The majority of the Weiser State Forest is located in the Chesapeake Bay Watershed. The majority of the creeks and streams find their way to the Susquehanna River to reach the bay. A small portion of the district does drain into the Delaware-Mid Atlantic Coastal Watershed.

![Map of major (Hydrologic Unit Code 4) and minor (Hydrologic Unit Code 8) watersheds within entire district.](image)

Figure 12-1. Map of major (Hydrologic Unit Code 4) and minor (Hydrologic Unit Code 8) watersheds within entire district.

b) Major Municipal Supplies
There are several major municipal water supplies that fall on or drain from state forest land. Our Roaring Creek tract is the main watershed for Aqua Pennsylvania who supplies water to several thousand residents in the area of Shamokin, Ashland, Mount Carmel and outlying areas. Located on the Roaring Creek tract Aqua Pennsylvania has three impoundments and several wells they draw water from. The Haldeman tract is a watershed feeding the Lykens Municipal Water Authority and their impoundments located off of state forest land. The Greenland tract lies between two municipal water supplies, Wiconisco Municipal Water Authority and Tower City Water Authority.

c) Fish and Boat Commission Stream Habitat Prioritization
Weiser State Forest has only one stream listed as high priority for habitat improvement by the PFBC. This stream is the Rattling Creek located on the Port Clinton tract in southern Schuylkill
and northern Berks counties. The district does not have any current plans to conduct habitat improvement work on this stretch of stream, but the district plans to conduct stream habitat improvement work in the future. Either on this stream or some of the other streams which had medium priority ratings.

Figure 12-2. Streams within the district prioritized for aquatic habitat improvement projects based on PFBC Stream Habitat Improvement Prioritization Tool.

d) Acid Mine Drainage

There are no known AMD problems within the Weiser State Forest but since the district lies within the heart of anthracite coal region there are AMD issues on surrounding areas. Most of the AMD issues are in Schuylkill, Columbia, Northumberland and Carbon counties. The local conservation districts along with our sister agency, DEP take the lead on projects to clean up the AMD.

e) River Islands

The Weiser State Forest has oversight on over 500 river islands on all three branches of the Susquehanna River which lies within our district boundary. On the islands located on the middle section of the main branch, Sunbury south to Harrisburg, this section is the Susquehanna River Trail Middle Section. This section has 23 primitive campsites and have been managed by the Susquehanna River Trail Association (SRTA) a volunteer group that works closely with the district. These campsites are only accessible by water and no permit is required to camp. The district also has oversight on an island located near Hamburg, PA on the Schuylkill River.
13) Harvest Allocation

The bureau created a harvest allocation model that sets timber harvest schedules for state forest land in each district. The goals of the model are to promote and maintain desired landscape conditions, create a diversity of successional stages and native forest communities, balance the age class distribution, and provide a sustained yield of quality timber. The model uses the bureau’s forest inventory data, economic information, bureau policies, and desired ending target forest conditions to develop timber harvest schedules that best meet the bureau’s silvicultural and timber management goals. A detailed discussion of the harvest allocation model can be found in the 2016 SFRMP, beginning on page 93.

The bureau is presently in the second harvest allocation period of the model. The district’s timber harvest goals for the second period are shown in the table below.

![Figure 13-1](image)

**Figure 13-1.** Chart of comparison between actual harvest acreage accomplishments and harvest allocation model goals from the first decade of implementation of the harvest allocation model. Rows from left to right represent: Overstory Removals (even-aged), Shelterwoods (even-aged), Intermediate Treatments (even-aged), Two-age and Uneven-age Buffer Treatments, and Salvage/Miscellaneous.
Table 13-1. Comparison between actual harvest acreage accomplishments and harvest allocation model goals from the first decade of implementation of the harvest allocation model.

Figure 13-2. Chart of comparison between actual harvest volume (thousand board feet - MBF) accomplishments and harvest allocation model goals from the first decade of implementation of the harvest allocation model for sawtimber and pulpwood.

Table 13-2. Comparison between actual harvest volume (thousand board feet - MBF) accomplishments and harvest allocation model goals from the first decade of implementation of the harvest allocation model for sawtimber and pulpwood.
Table 13-3. Target shelterwood (Shelt), overstory removal (OR), intermediate (Int), and buffer treatment acreages for the second decade of the timber harvest schedule, aggregated by forest type, site class, stocking level, and treatment. Additional shelterwood treatments for 3 or more stage shelterwoods are not represented in these targets.

14) Economy and Timber Products Industry

Very few producers of hardwood lumber or fiber operate with the Weiser. Within the Weiser Forest District, primarily in the production of lumber, a single corporation is “the nation’s leading hardwood manufacturers.” Economics based on these few companies can be more graphically evaluated by inspecting Pennsylvania’s Timber Products Output Survey, April 2015


The second critical piece of information to assist the reader to better understand the forest products industry in Pennsylvania is the Pennsylvania Primary Wood Processers Directory, 2014

15) Wildlife

The Weiser Forest District is managed in a way to promote and conserve a wide variety of forest and habitat types. It is important to supply this variety as there is a diverse number of wildlife species including mammals, birds, reptiles, amphibians and fish which call the state forest home. Each of these require their own set of living conditions to survive and thrive in these areas.

Early Successional Habitat

Great emphasis has been put forth to create early successional habitat in several areas of State Forest in the Weiser District. This habitat is something that has been lacking as much of the forest has not been cut since the early 1900’s. Game animals such as grouse, woodcock, white tailed deer, wild turkey and black bear all thrive in these very thick habitats. These are also key areas throughout the year for birds such as the Golden-winged and cerulean warbler to hatch and raise their young. Both are species of national concern as their populations have decreased in recent years as our forests have matured.

Key species for this habitat would include aspen, scrub oak and pitch pine. Several areas of the Weiser State Forest have been identified as areas that consist of these species and have been managed in ways to increase the quantity of each. Some methods which have been used to create this include commercial overstory removal harvests, non-commercial projects to create openings and prescribed fire. Funding from the Ruffed Grouse Society was used to create small canopy gaps of 5-7 acres on both the Second Mountain Tract and Taylorsville Tract. On the Roaring Creek Tract, a prescribed fire was conducted in spring of 2018 in an area containing scrub oak and pitch pine. Also, on Roaring Creek a cut was done to release a 25 acre patch of Aspen which was then fenced to exclude deer as aspen is a highly preferred browse species to the point they could have altered the tree species present in this area.

Deer Management

One of the key big game animals pursued on the State Forest is the White-Tailed Deer. While many visitors to the forest like to see a higher deer population it is important for these animals to be managed in a way that allows for a healthy forest for the future. Increased deer populations can have a negative effect on young forest regeneration as on mature deer, without other options eats 8-10 pounds of browse (example tips of young seedlings) per day. Most of the preferred browse of the deer include the species most desired to move into the future stand including oak trees. An unmanaged deer herd can quickly change forest type and make it difficult to regenerate young forests. In addition to young trees deer also feed on native shrubs, grasses, wildflowers and other plants which play important roles in the landscape.

To try to best manage the deer herd DCNR and the Weiser Forest has adopted the Deer Management Assistance Program (DMAP). This program was established by the Pennsylvania Game Commission and allows DCNR to allocate additional antlerless hunting permits for the specific tracts with populations
higher than the habitat can handle. To identify these tracts there are permanent plots where different plant types are tallied both species preferred by deer and those that aren’t. By controlling deer numbers now, we are able to create a forest which will be able to handle higher numbers due to there being more desirable plants and mast producing trees.

Currently there are DMAP areas on the following tracts on the Weiser: Port Clinton, Jefferson, Second Mountain, Haldeman, Taylorsville and Roaring Creek. More information can be found on the DCNR Forestry Website under Deer Management.

Golden Eagle Project

In recent years Weiser Forest has participated in a study on the travel of Golden Eagles. By using trail cameras and road killed deer the goal was to capture locations of the eagles through winter. This has produced eagles in various parts of the state. This study also showed a lot of other animals which make the state forest home including white-tailed deer, red and grey fox, bobcat, coyote, fishers and several others. With the spread of Chronic Wasting Disease, CWD, and the investigation to determine for certain that CWD prions are disbursed through the digestive tract of golden eagles, the Weiser Forest District will be suspending participation in the photo trapping program.

Aquatic Life

Most aquatic life can be found on the Roaring Creek Tract where there are three large reservoirs scattered throughout the tract all connected by the Roaring Creek. In the dams a variety of fish and several species of turtles are able to thrive due to the high-quality water source. The creek connecting these reservoirs also has brook trout living in them. Special care is taken to keep this a clean water source by limiting vehicle traffic on the nearby road.

When timber sales are completed a buffer is set to not timber directly next to the stream and water bodies. This allows for the buffer of trees to catch any sediment before it makes it to the water and slows down the rate that heavy rainfall makes it to the water avoiding major flooding events. By keeping trees along the water it also cools the stream temperature in the summer months. Keeping cool water in the stream allows for brook trout to survive as they have a very narrow range of water temperatures where they are able to live.

16) Wildland Fire

a) Wildfire Suppression
The Weiser Forest District is mandated by State Law to respond to, extinguish, and investigate wildfires. Since 2002 the district has averaged 111 wildfires per year with an average of 434 acres burned per year. Average fire size is 3.9 acres.
Large fires in recent years include the 825 acre Razor Fire on April 18-19, 2015 in East Penn Township, Carbon County, the 668 acre Pipeline One Fire on May 3-4, 2015 in Kidder Township, Carbon County, and the 284 acre Windmill B3 Fire in Mahanoy Township, Schuylkill County. The leading causes of wildfires in the district between 2008-2017 are arson (35%) and debris burning(34%).

The Weiser District has 36 employees. 18 are full-time and 18 are seasonal. All are trained and utilized in various roles to suppress wildfires. The district is broken down into 4 Fire Divisions. They are Bear Gap Division (Columbia, Montour, and Northumberland counties), Locust Valley Division(Schuylkill county), Penn Forest Division(Carbon county), and Haldeman Division( Dauphin and Lebanon counties). There are 3 Fire Foresters and 1 Forest Fire Specialist Supervisor in the district. Their primary duties involve the prevention, suppression, and investigation of wildfires and the training of Wildland Fire Fighting Crew members.

The employees are greatly assisted by a Volunteer Fire Fighting Organization. This consists of 84 active Forest Fire Wardens, 16 of which can respond to wildfires with trained forest fire crewmembers, and 1 Wildfire Support crew. There are also 280 Volunteer Fire Companies in the 7 county area who attend training sessions and assist with wildfire suppression. Our Forest Fire Wardens have averaged 140 wildfire preventions programs annually.

Forest Fire Towers are still an excellent means of early detection of wildfires. In 2018 the district replaced the Bears Head Fire tower near Delano, Schuylkill county and the Mauch Chunk Fire Tower near Jim Thorpe in Carbon County with new structures on the same sites. These towers will be in use in 2019 and should last for many years.

There are 12 wildland fire engines and 5 water tenders available for fire suppression. There are also 2 dozers. There are tool caches at the district Office and each of the fire divisions work stations. They contain an array of firefighting hand tools, chainsaws, backpack water tanks, leaf blowers, drip torches, portable pumps, portable water tanks, Forestry hose and related appliances. As the fire danger goes up so does the staffing of personnel to provide initial attack resources on wildfires.

Weiser forest district is an active participant in the federal Excess Personal Property (FEPP) Program. Equipment obtained through the program has been successfully used by the district and many of the Volunteer Fire Companies to help protect the communities they serve.

The Wildland Urban Interface is prominent in the Penn Forest Division of the district. Much of our wildfire mitigation efforts have taken place in the forested communities of Carbon county.

b) Prescribed Fire

On July 17, 2009, Prescribed Burning Practices Act, P.L. 76, No. 17 became law. This law allows private landowners and state government agencies to use fire as a silvicultural tool and for control of invasive and understory competing vegetation.

Prescribed fire in the Weiser State Forest is steadily becoming a more important forest management tool. In our district the primary use is for silvicultural purposes. Using fire we try to release valuable tree species like established oak seedlings, maintain herbaceous openings, improve wildlife habitat,
reduce forest fuels, and improve site quality. Fire can eliminate competing vegetation and invasive species.

An equally important use for prescribed fire is for our district staff, fire wardens, and district wildfire support crew personnel to gain experience during prescribed burns. These prescribed burns allow more opportunities to observe fire behavior and all the factors that influence it.

The Milton Hershey School maintains 147 acres of reclaimed agriculture fields on the campus in warm season grasses. Fire plays an integral role in maintaining the warm season grasses and limiting invasive species encroachment. DCNR and Milton Hershey School have entered into a cooperative agreement for utilizing fire for the warm season grass meadows on the school’s campus. The prescribed fires not only provide ecological management but allow opportunities for student training in wildfire operations and research into fire’s physical properties.

17) Major Forest Health Issues

As stewards of Pennsylvania’s state forests, the department’s Bureau of Forestry has a mission to “ensure the long-term health, viability, and productivity of the Commonwealth’s forests and to conserve native wild plants.” There are many forest health issues affecting the Weiser State Forest, from damaging insects and diseases, to the establishment of invasive plants. Foresters work with the Bureau of Forestry’s Division of Forest Health to identify, monitor, document, manage, and treat insects and diseases on state forest land and with our Ecological Services Section to identify and control invasive plants. Landowners, volunteers, and DCNR Service Foresters monitor and report unusual forest health issues on private and municipal land as well.

Insects and Disease

Forest insects and diseases are serious threats to the health and sustainability of the forest ecosystem. As trees age or are stressed by external factors, they become less able to fight off insects and disease-causing pathogens, eventually succumbing to insect infestations and diseases. External factors that can stress trees include; drought, excessive precipitation, abnormal temperatures, and wind. Some insects and diseases are native to our area, but there are several insect and diseases that were introduced into our area and into the United States from foreign countries. The non-native, invasive pests are usually much more destructive to our forest ecosystem since there are no natural biological controls in place.

Native Pests

In addition to exotic insects and diseases, concentrated outbreaks of native insects and disease, such as oak leaf roller, elm spanworm, fall cankerworm, southern pine beetle, and anthracnose disease, can cause severe defoliation and mortality in localized areas. The risk of mortality increases when these outbreaks occur in conjunction with other stressors, such as drought and gypsy moth defoliations. Climate change adds an additional level of uncertainty to future impacts of both native and invasive forest pests. In 2018 a southern pine beetle trap was located on the Haldeman Tract for monitoring; as concern for this pest has been elevated due to recent outbreaks in neighboring District 17. In 2018 the district, and much of the entire state, experienced moderate to severe damage from oak anthracnose due to an unusually wet Summer. Other fungal leaf diseases were noticed as well due to moist
conditions in the forest. From 2013 to 2015 an outbreak of native defoliators (fall cankerworm and oak leaf roller) contributed to extreme defoliations in the district. Combined with gypsy moth outbreaks, these infestations contributed to heavy oak mortality within the district. Small outbreaks of cherry scallop shell moth on black cherry have been noticed in the district over the last 3-4 years, which can cause severe stress and mortality to trees after consecutive years of defoliation.

**Non-Native, Invasive Pests**

Many non-native, invasive insects and diseases have found their way into the Weiser State Forest. The Chestnut Blight and Dutch elm disease were introduced into the United States and changed the makeup of the forest during the early part of the century. The Gypsy Moth was introduced from Europe and became a major threat to the forest ecosystem in the late 1980’s and 1990’s. Of the introduced pests and diseases that have more recently affected our forests, the most prevalent in the Weiser State Forest are the Gypsy Moth, the Emerald Ash Borer and the Hemlock Wooley Adelgid. Although a new pest, called the Spotted Lanternfly, has been identified within district boundaries and is thought to be the next significant invasive insect to invade the country.

**Gypsy Moth**

The gypsy moth (GM), *Lymantria dispar*, is an invasive moth native to Europe, and was first introduced to the country in the late 1800s for silk production. GM was first identified as a forest pest in Pennsylvania in 1932. Although oak species are heavily preferred, gypsy moth caterpillars will feed on many other tree and shrub species. Gypsy moth has been causing significant forest damage in Pennsylvania since the 1970s. The most recent outbreak on the Weiser occurred between 2013 to 2017. GM outbreaks occur in cycles every 6-10 years. Common controls for GM are biological (parasitoids, bacteria, and fungus), pesticide, and manual removal. Common insecticides used to control GM are Mimic© and *Bacillus thuringiensis* (Bt), of which both are sprayed via aerial application. Both insecticides have been used on state forest in the past. There are many factors that come into play when choosing one insecticide over the other, but the use of Bt is more common on state forest. Perhaps the longest-standing effort to manage forest pests on Pennsylvania’s forest lands has been the DCNR’s Bureau of Forestry’s gypsy moth spray program. DCNR conducts an aerial gypsy moth suppression program for private landowners on a request basis. This is conducted through a request for treatment by county government. Over the last three years the district has treated the following in the aerial GM spray program; in 2018, 390 acres were treated with Bt, in 2017 9,094 acres were treated with Bt, and in 2016 we had 26,097 acres sprayed with Bt within the district. Currently, in 2018, all indications point toward a declining GM population but all it takes is one or two warm/dry springs, with less fungal control on the caterpillar, and the environment will be ideal for an upswing in GM population densities to occur.

**Emerald Ash Borer**

The emerald ash borer (EAB), *Agrilus planipennis*, is an invasive beetle native to Asia, and was first detected in 2002 in Michigan. EAB was then detected in western PA in 2007, and on the Weiser State Forest in 2011. EABs main mode of transportation is through humans; transporting firewood, timber, and nursery stock. EAB is known to infest all species of ash, and kills 99% of its host trees. There have been a select few that are noticed to be resistant, which are called “lingering ash”. These “lingering ash” are believed to make up 1% of our ash communities and work is in place to save these rare trees. As of 2018, most ash in the district are either dead or in severe decline due to EAB and other supplemental
stressors, such as ash yellows a bacterial disease. The Weiser District does participate in an ash treatment program on state forest in cooperation with the Division of Forest Health. The first treatment of ash using the product Treeage© (Emamectin Benzoate) occurred in the district in 2015. We recently had a follow up treatment, using the same insecticide, in 2018. Treatment sites on the Weiser include; the Roaring Creek Tract (62 trees treated), the Jakey Hollow Natural Area (58 trees treated), and the Haldeman Tract (2 trees treated). Weiser staff will continue to monitor treatment trees every year and treat every 2-3 years as needed. The state-wide Ash/EAB Management Plan can be viewed at http://www.docs.dcnr.pa.gov/cs/groups/public/documents/document/dcnr_20029768.pdf

Hemlock Wooley Adelgid

The hemlock wooley adelgid (HWA), Adelges tsugae, is an invasive insect from Japan that was first introduced to the country in the 1950s, and detected in Pennsylvania by the late 1960s. These adelgids, which are closely related to aphids, have caused significant defoliation and mortality in Pennsylvania’s forests. Most hemlock trees don’t have a chance when coupled with elongate hemlock scale (EHS), another pest attacking our state tree. Thousands of acres of hemlock have been decimated by this prolific pest. HWA can be impractical to treat on a large scale, but a small number of trees can be protected with insecticides. Other means of managing HWA are with biological controls, silviculture, and tree breeding for host resistance. The Weiser State Forest does participate in a treatment program in cooperation with the Division of Forest Health to maintain some remnant hemlock populations. The first treatment of hemlock using the insecticide Safari© (Dinotefuran) occurred in 2014, and follow up treatments were done, using the same insecticide, in the Fall of 2017 and 2018. We were able to hold off on treating a few sites in the spring of 2018 after noticing heavy levels of mortality on HWA during the winter of 2017/2018 due to unusually cold temperatures. The goal of the hemlock treatment program is to retain and maintain remnant areas that have been identified as ecologically significant by district management and foresters. On the Weiser, the sites treated include; the Roaring Creek Tract (District Office, Rt. 42 parking lot, A Frame & Stonehouse, and Rt. 54 parking lot) and the Penn Forest Tract. 116 trees (1,445 inches) were treated at the District Office site and 53 (701 inches) hemlocks were treated at the Rt. 54 Parking lot in the Fall of 2018. 220 hemlocks (2,671 inches) were treated at the Rt. 42 Parking lot, 13 hemlocks (182 inches) near the A Frame and Stonehouse, and 25 trees (260 inches) at the Penn Forest Tract were treated in the Fall of 2017. Weiser staff will continue to monitor treatment trees every year and treat them every 2-4 years when needed. The state wide Eastern Hemlock Management Plan can be viewed at http://www.docs.dcnr.pa.gov/cs/groups/public/documents/document/dcnr_20030071.pdf.

Spotted Lanternfly

The spotted lanternfly (SLF), Lycorma delicatula, is an invasive planthopper, native to China, that was first detected in 2014 in Berks County, Pennsylvania. SFL is a highly destructive invasive pest, threatening agricultural, timber, and ornamental industries. It feeds on least 70 different desirable plant species from garden plants to woody tree species, but strongly prefers ailanthus/tree-of-heaven. The biggest concern as of right now, is with the commercial fruit industry and its economic damage to fruit producers in the state of PA. Since its arrival SLF has been identified in 13 counties in PA and a quarantine is in effect in those areas. Carbon, Lebanon, and Schuylkill Counties, are included in that 13-county quarantine area, which fall within the Weiser State Forest system. In 2018 spotted lanternfly was identified by DCNR staff on the Port Clinton Tract (Schuylkill County). We will continue to monitor this
area, and other state forest tracts, with staff and volunteers. Control measures for SLF include; public outreach, egg scraping, tree banding, host removal (tree-of-heaven), and chemical control. All employees on the Weiser have completed SLF training to help prevent the spread of SLF and advertise identification and control measures to the public of this invasive pest. Updated information regarding SLF control and current quarantine boundaries can be found at https://extension.psu.edu/spotted-lanternfly-management-for-homeowners

**Invasive Plants**

Invasive plants are plants that are not native to an area and spread quickly, often displaying prolific reproductive habits and rapid growth. Their introduction causes environmental, economic, and harm to human health. These plants are often referred to as exotic, introduced, or non-native. Invasive plants tend to appear on disturbed sites, and the most aggressive can invade existing forests. Invasive plants can be brought into areas accidentally or purposely.

The health of state forest ecosystems will be managed through monitoring, prevention, and suppression of destructive forest agents. Monitoring and suppression of invasive plants happens through programs such as our Bureaus’ newly developed Early Detection Rapid Response (EDRR) program. This is a software mapping program that assists the DCNR BoF through documentation of invasive plant outbreaks. Active control of invasive plants on the Weiser State Forest happens through most of the growing season through timely herbicide applications. Areas of priority for invasive plant control are areas in the district that are being managed through silvicultural treatments or recreational activities.

Invasive plants can be trees, shrubs, vines, grasses, or flowers. Here is a list of major invasive plants located within the Weiser State Forest:

- Oriental bittersweet
- Japanese stiltgrass
- Japanese barberry
- Burning bush/euonymus
- Japanese knotweed
- Ailanthus/tree-of-heaven
- Royal paulownia/empress tree
- Bush honeysuckle spp.
- Japanese honeysuckle
- Mile-a-minute
- Norway maple
- Bradford pear
- Autumn and Russian olive
- Multiflora rose
- Purple loosestrife
- Glossy buckthorn
- Canada and Bull thistle
- Common privet
- Poison Hemlock
- Japanese Angelica
18) Major Recreational Uses

The Weiser State Forest offers a wide variety of low-density recreational opportunities. Since the state forest land is broken up into thirteen tracts covering five counties there is a wide spectrum of forest visitors. The more common recreational activities are: mountain biking, hiking, hunting, fishing, horseback riding, kayaking/canoeing and motorized camping.

Mountain Biking

The district has three tracts offering miles of trails to mountain bike on. There is a total of seventy-three miles of approved shared-use trails to bike. The Rattling Creek trail system located at the Haldeman tract has been designated an Epic trail system by the International Mountain Bike Association (IMBA). The Roaring Creek tract has many miles of trails and the district is in the current process to add an additional twenty miles of trails to the existing trail system. The Penn Forest tract is a small tract on the Pocono Plateau in Carbon County but it offers trail system where the visitor can ride through a palustrine forest. The majority of these trail systems were constructed and maintained with the assistance of conservation volunteer.

Hiking

The district has a total of eighty miles of hiking trails. The majority of these trails are managed as shared-use trails for all non-motorized activities. The district does have a few hiking only trials, such as the Troutman Demonstration Area trail, Split Rock Trail at the Haldeman tract. At our Roaring Creek tract there trails used by coal miners to access the coal mines from the agricultural valley to the north which are hiking only since they go straight up and over two mountains.

Boating

The district has two reservoirs located on the Roaring Creek tract for forest visitors to launch their non gas powered boats. At the McWilliam's and Kline's reservoirs the district offers moor docks for the forest visitor to obtain a mooring permit thru the district office. Beside the reservoir there several water trails boaters can paddle one. One is the Middle Section of the Susquehanna River Trail, from Sunbury to Harrisburg which lies within the entirety of the district. The other river trails on the Susquehanna River (West and North Branch Trails) only portion of the river trail passes through the district.

Equestrian

The district promotes 15 miles of horseback riding trails at the Haldeman tract but all shared-use trails and roads are open to horseback riding in the district. The only exception is the Roaring Creek Tract. Shared use trails in the Roaring Creek Tract are only open to hikers and bicycles, not to equine.

Cross Country Skiing

There are twenty-eight miles of promoted cross country skiing trails within the district. Most of this recreation type is conducted at either the Roaring Creek tract or Penn Forest tract. The trails at these tracts are fairly flat.
**Camping**

The district offers motorized and primitive camping within the district. There are a total of eighteen motorized campsites located on four of the districts forest tracts; Haldeman (5), Greenland (4), Second Mountain (4) and Port Clinton (5). Each campsite has a parking pad, fire ring and picnic table. The campsites can be reserved by contacting the district office. Primitive camping is allowed throughout the district except in designated restricted areas. There are special rules and regulations for primitive camping on the Roaring Creek tract since it is a public water supply area. All primitive camping must be three hundred feet from any water source. The district is also developing an equestrian camping area on the Haldeman tract. The camping area will have a total of four campsites with a parking pad, picnic table, fire ring and highline for safely secure equine.

**Volunteers and Friends Groups**

The district has two friends groups it works with in the district. Friends of Weiser Haldeman/Greenland Tract work primarily on the Haldeman tract. They are made up of individuals from all recreational groups, equestrians, mountain bikers, hikers, etc.. Friends of Weiser Roaring Creek Tract is comprised of mountain bikers who maintain forty miles of shared-use trails. They are currently working with the district to create additional trails on the Roaring Creek tract.

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**Figure 18-1.** Acres of state forest land in this district by Recreation Opportunity Spectrum (ROS) classifications (2012). ROS is an inventory system developed by the U.S. Forest Service, to characterize land by types of recreation experiences. ROS is described on p. 42 of the 2016 SFRMP. “Other Zones” refers to Semi-Developed and Developed zones.

ROS forested land identified to be a primitive zoning, tract must be 1000 acres or greater. The setting for these niche’s is a distance of one mile from a road, lakes or trails with motorized use,
appearance is unmodified – very natural or wild appearing. Nearly half the forested land on the Weiser Forest District, (not state forest land) but forested land is “Semi-Primitive” and “Semi-Primitive non-motorized.” Moving away for the very natural or wild appearing/sounding (or lack of sound) areas referred to as Primitive are these two more human impacted zonings. Semi-Primitive non-motorized ROS zones are 500 or more acres, one half mile from roads, trails lakes but still may not have power lines but may boast rustic bridges and fire rings at campsites. Semi-primitive ROS areas are smaller still; 250 acres or greater and a ¼ mile or more from roads, trails lakes with motorized access and use. The single biggest addition is the addition of motorized camping and motorized access throughout. The remainder of the ROS chart falls into the catchall of Other zones. Semi-developed and developed landscape is constantly visually in range of human made amenities, windmills, powerlines, structures, agriculture land and industrial facilities, etc.

Visitor Use Monitoring (VUM) are anticipated to occurred after 2020.

19) Cultural and Historic Resources

<table>
<thead>
<tr>
<th>Cultural Feature</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCC Camp</td>
<td>1</td>
</tr>
<tr>
<td>Archeological Site</td>
<td>1</td>
</tr>
<tr>
<td>Mine</td>
<td>8</td>
</tr>
<tr>
<td>Spring</td>
<td>1</td>
</tr>
</tbody>
</table>

Civilian Conservation Corp, CCC camp S-123 Camp Elizabethville or Armstrong Valley was located in Dauphin County, five miles south of Elizabethville, PA. The camp was opened on October 14, 1933 and closed in January 1937. The Superintendent was Godfrey P. Keebler and the District Forester was H. B. Rowland.

Currently the Superintendent’s residence stands and has been modernized to house office and meeting facilities.
A prehistoric archeological site is located on state forest land.

Deep mining was a way of life for thousands of residences of Columbia, Northumberland, Carbon, Dauphin and Schuylkill Counties. The Roaring Creek tract is littered with the remnants of miner’s toil in “company mines” and “bootleg” or illegal mines.

a) Supra Areas
   • Discuss any that you have
b) High Conservation Value Forests

Table 20-1. Acres of High Conservation Value Forest by category. To comply with Principle 9 of the FSC U.S. Forest Management Standards, the bureau evaluated and assessed areas for inclusion as HCVFs. While the BOF believes that all state forest lands are of highest conservation value, areas not designated as such are still of equal importance and are protected through law and best management practices. The areas which have been identified as HCVFs are mapped and managed in a manner that will maintain and/or enhance the values for which they have been designated. More information about HCVFs can be found in the SFRMP, p. 64.

<table>
<thead>
<tr>
<th>HCVF Category</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1, areas legally protected or managed primarily for concentrations of biodiversity values that are significant at the ecoregion or larger scale</td>
<td>348</td>
</tr>
<tr>
<td>3.1, old growth stands</td>
<td>51</td>
</tr>
<tr>
<td>3.3, rare, threatened, or endangered ecosystem</td>
<td>62</td>
</tr>
<tr>
<td>4.1, areas providing a source of community drinking water</td>
<td>1,035</td>
</tr>
<tr>
<td>6.2, areas with cultural features created intentionally by humans</td>
<td>2</td>
</tr>
</tbody>
</table>

- Plant sanctuary at Penn Forest Tract holds number species of concern. This sanctuary is on the Pocono Plateau, lists upland and wetland diverse flora and unique to Weiser Forest.
- Jakey Hollow Natural Area is a small but unique site in Central Columbia County. This tract is very accessible to public enjoyment but most certainly overlooked. Jakey Hollow’s steep inward sloping topography, large, “old growth” individual trees and diverse forest make it unique.
- Near Harrisburg the Sheets Island Archipelago in the Susquehanna River includes approximately 50 island supporting waterfowl and songbird habitat.
- Roaring Creek Tract contains three reservoirs – community drinking water; Kline’s, McWilliams and Bear Gap reservoirs provide water to communities in Columbia and Northumberland Counties. Weiser Forest works with Aqua America to assure these communities have safe drinking water.

c) Wild and Natural Areas

Table 20-2. Total acreage of Wild and Natural Areas on state forest land within Weiser State Forest.

<table>
<thead>
<tr>
<th>Weiser</th>
<th>Name</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Areas</td>
<td>Jakey Hollow Natural Area</td>
<td>50.7</td>
</tr>
<tr>
<td></td>
<td>Sheets Island Archipelago Natural Area</td>
<td>61.2</td>
</tr>
<tr>
<td></td>
<td>Natural Area Total</td>
<td>111.9</td>
</tr>
<tr>
<td>Wild Areas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wild Area Total</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>111.9</td>
<td></td>
</tr>
</tbody>
</table>

- Sheets Island Archipelago Natural Area is a 70 acre area located in the Susquehanna River in Dauphin County, and supports migratory and resident waterfowl and song birds.
- Jakey Hollow Natural Area is a 59 acre area located in Columbia County supports eastern white pine, eastern hemlock and oak trees. Several massive old growth white pine and hemlocks will remind the visitor of pre-settlement forests in eastern United States.

20) **Interpretive Plans**

**Weiser Forest District Interpretive Goals**

1. Encourage exploration and participation in low impact recreation within the Weiser Forest District.

2. Promote awareness and encourage sustainable use of resources by communicating, and modeling good stewardship and best management practices.

3. Foster partnerships with local communities, school groups, municipal governments, organizations, private industry, fire companies, volunteers, and forest user groups.

4. Develop engaging experiences that promote intellectual and emotional connections between the resource and visitors.

5. To foster an appreciation and understanding of the history of Pennsylvania’s forests and their role in our lives.

6. Promote the conservation of the natural environment and enhance the quality of life by sustaining vital natural resources.

7. Promote wildland fire awareness and foster a robust relationship with local stakeholders (i.e. Wardens, County Governments, and Volunteer Fire Companies).

8. Promote grants and incentive programs offered by DCNR and other natural resource based agencies.
District Priority Goals

The 2016 SFRMP set forth Principles, Goals, and Objectives that focus on the variety of resources, uses, and values of state forest land. These Principles, Goals, and Objectives were organized around 12 Resource Chapters:

- Communications
- Timber and Forest Products
- Native Wild Plants
- Wildlife
- Water Resources
- Soils
- Geologic Resources
- Wildland Fire
- Forest Health
- Recreation
- Infrastructure
- Cultural Resources

The Principles, Goals, and Objectives in the SFRMP apply universally across all of state forest land. Due to their broad application, they were written in relatively general terms. This District SFRMP provides an opportunity to prioritize goals that are more specifically applicable at the district level. The District Priority Goals that follow provide points of emphasis for state forest land management within Weiser State Forest over the next 5-10 year planning horizon.

Weiser Forest District Goals

1. Provide quality recreational opportunities including hiking, mountain biking, equestrian trails, snowmobiling and cross country skiing.

2. Provide and manage early successional habitat on poor quality growing sites using a variety of methods to promote desirable regeneration.

3. Continue to sustainably manage our state forest and meet our annual timber allocation.

4. To minimize impacts of invasive species on state forest land. This will be done through monitoring and treatment with emphasis on high priority Early Detection Rapid Response (EDRR) plant species.

5. Add strategic parcels as they come available to the State Forest land base

6. Continue fire suppression in a safe manner by keeping district staff current with annual trainings. Increase prevention and public awareness. Provide training for fire wardens and VFDs so they remain a useful asset. Continue to develop the prescribed fire program targeting wildlife and timber sale regeneration projects.

7. Continue to cooperate with local, state and federal agencies through outreach, communication and education to private forest landowners by encouraging sustainable forest management and riparian buffer development.

8. Continue to maintain and improve district facilities, roads, trails and amenities.

9. Protect and conserve the integrity of exceptional value streams.
Landscape Management Unit Plans

With the 2016 revision of the SFRMP, the bureau introduced the LMU concept to facilitate consistent, structured, and integrated resource management and planning across large landscape units on state forest and adjoining lands. LMUs were delineated for all state forest land in 2016-2017. The LMU, which complements other ecological delineations, now serves as the primary unit for landscape-level planning and management on state forest lands. LMUs help the bureau facilitate planning on a landscape scale that has ecological context, incorporate multiple forest uses and values, and promote ecological analysis. The units also serve as a tool to facilitate cooperative management with adjoining forest districts, landowners, and agencies. An explanation of how LMUs were delineated is found in the 2016 SFRMP on page 62.

The bureau has developed LMU Plans for every LMU containing state forest land. The LMU Plans for LMUs within Weiser Forest District are found below. Each LMU Plan contains three elements:

- Abstract – a 1-2 page narrative describing the LMU and its important features;
- LMU Priority Goals – a list of points of emphasis for state forest land management within the LMU, similar to the District Priority Goals, but at the LMU level; and
- Profile – tables, charts, and accompanying text that more fully describe the LMU’s characteristics.

Fishing Creek
Landscape Management Unit

Abstract

The Fishing Creek LMU consists of 15,245 acres located in central Columbia County. The landscape consists of a mosaic of agriculture divided by steep forested drainages that are small tributaries of Fishing Creek and Little Fishing Creek. One of these drainages is a 51 acre tract of State Forest called Jakey Hollow. Jakey Hollow was acquired in 1990 and is managed as a Natural Area due to its old growth characteristics. This small tract of state forest has a great deal of biodiversity. Large old eastern white pine climbing out of the hollow shows what this area may have looked like in the past. The rich variety in plant life attracts and helps sustain multiple wildlife species.

Fishing Creek is defined as a large warm water tributary of the Susquehanna River (North Branch). Little Fishing Creek, which Jakey Hollow drains into, is a cold water fish stream that flows into Fishing Creek.
Fishing Creek and its larger tributaries are locally admired for exceptional trout fishing and clean appearance and should be managed to sustain or improve the health of this waterway.

Priority Goals

1. To preserve the “Old Growth” forest characteristics of Jakey Hollow by continuing to manage the property as a Natural Area.
2. To minimize impacts of invasive species in the Natural Area. This can be done through monitoring and treatment with emphasis on high-priority EDRR plant species in Weiser State Forest (Japanese angelica tree, mile-a-minute, non-native bush honeysuckles, jetbead, giant knotweed, and Japanese knotweed). Currently, emerald ash borer is being treated in Jakey Hollow.
3. Suppress wildfire to control threats to natural resources, infrastructure and human life. Non-human caused fires in the Natural Area will be controlled to minimize threats to infrastructure and human life.
4. Provide and maintain healthful, low-density recreational opportunities and experiences. This could be improved with the acquisition of an adjacent railroad grade.
5. Promote conservation and enhancement of riparian buffers and aquatic ecosystems through education

Profile

SFL Acres: 51  Total LMU Acres: 15,245  Ecoregion: Ridge and Valley

Land Cover (entire LMU)

The majority of this LMU is covered by privately owned farms and residences. The forested areas are primarily steep drainages.
Roads and Trails

<table>
<thead>
<tr>
<th>Road Category</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z1 - Public Use Road</td>
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</tr>
<tr>
<td>Total</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trail Category</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiking</td>
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</tr>
<tr>
<td>Biking</td>
<td>0</td>
</tr>
<tr>
<td>Equestrian</td>
<td>0</td>
</tr>
<tr>
<td>X-Skiing</td>
<td>0</td>
</tr>
<tr>
<td>ATV I</td>
<td>0</td>
</tr>
<tr>
<td>ATV II</td>
<td>0</td>
</tr>
<tr>
<td>Snowmobile</td>
<td>0</td>
</tr>
<tr>
<td>Joint Use</td>
<td>0</td>
</tr>
</tbody>
</table>

No marked trails exist in the Natural Area, however old logging roads/skid trails are utilized occasionally. The acquisition of a portion of railroad grade would improve access and allow a trail network to be formed.

Aggregated Forest Types (acres)
Streams by Class

<table>
<thead>
<tr>
<th>Class</th>
<th>Total Miles</th>
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<tbody>
<tr>
<td>Perennial Cold Water</td>
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</tr>
<tr>
<td>Total</td>
<td>1</td>
</tr>
</tbody>
</table>

According to DEP, Fishing Creek is categorized as a Warm Water Fish stream. Some of the tributaries, such as Deerlick Run, are categorized as impaired due to agriculture while others, such as Little Fishing Creek, are categorized as Cold Water Fish streams.

Recreation Opportunity Spectrum (ROS)

Recreation opportunities are limited due to size of public lands and the classification of Natural Area. The non-motorized hiking and biking trails can be improved. This would also open the door to more bird watchers, photography, hunting and other non-motorized recreation.

Core Forests:

30
Blue Mountain Landscape Management Unit

Abstract
The Blue Mountain LMU is 58,873 acres and located in the southcentral portion of Weiser Forest District and Northern portion of the William Penn Forest District. Within this LMU are 33,246 acres of public land consisting of 3,916 acres of state forest and the 3,452 acre Swatara State Park. Also included are Game Lands 80, 106, and 110 which account for 25,878 acres. Nearly all of these public tracts of land are connected by a 50-mile section of Appalachian Trail, which runs the entire length of the Blue Mountain LMU.
The State Forest acres are a combination of six tracts of land including Port Clinton, Jefferson, Schubert, Wolfe, Katzen-Moyer, and Hamburg. The two larger tracts, Port Clinton and Jefferson, were acquired in 1955. The Schubert Tract was acquired in the mid 1930’s followed by the Hamburg Tract in 1949, then the Katzen-Moyer Tract in 1979, and lastly the Wolfe tract in 1982.

With a National Scenic Hiking Trail (Appalachian Trail), Swatara State Park, vast amounts of Game Lands and the always welcoming state forest tracts, the focal point of this LMU is recreation. With that in mind, the Weiser State Forest has made efforts to improve access, open motorized camping sites on the Port Clinton tract and work with the Appalachian Trail volunteers to maintain a shelter located on the Jefferson Tract. Other popular recreation attractions in this LMU include Hawk Mountain Sanctuary and Pinnacle Trail.

Timber management was a large part of this LMU’s past, as evidenced by presence of charcoal hearths, old skid trails, and by portions being owned by lumber companies in the past. The majority of this LMU is site 3 oak heath vegetation on the ridgetops. Most of the side slopes are comprised of oak heath or red oak stands and are site class 2. There are a few drainages and lower slopes that are red oak or tulip poplar stands and are site class 1. Site classes are described in the Profile below.

Priority Goals
1. Improve access and continue to provide diverse recreational opportunities including hiking, shared use and snowmobile trails through cooperation with the Game Commission and State Parks.
2. Manage commercial stands to meet allocation, provide forest products to the wood industry, provide commercial stands for future generations and provide habitat diversity within the LMU.
3. Manage invasive species in cooperation with the Game Commission and State Parks, with emphasis on high-priority EDRR plant species in Weiser State Forest (Japanese angelica tree, mile-a-minute, non-native bush honeysuckles, jetbead, giant knotweed, and Japanese knotweed).
4. Protect the integrity of exceptional value streams, such as ___, ____, and ______.
5. Utilize prescribed fire in fire-dependent communities to promote desirable regeneration of ___ community types and establish early successional habitat patches for (target wildlife).

Profile

<table>
<thead>
<tr>
<th>Table 1. LMU acreage: total and state forest land only.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acres</strong></td>
</tr>
<tr>
<td>State Forest Land</td>
</tr>
<tr>
<td>LMU Total</td>
</tr>
</tbody>
</table>

Ecoregion: Ridge and Valley
Figure 1. LMU acreage by land cover categories from the National Land Cover Dataset for the entire LMU.

Table 2. Miles of roads by category on state forest land in this LMU. Road categories are described on p. 199 of the 2016 SFRMP.

<table>
<thead>
<tr>
<th>Road Category</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z1 - Public Use Road</td>
<td>4</td>
</tr>
<tr>
<td>Z2 - Drivable Trail</td>
<td>0</td>
</tr>
<tr>
<td>Z3 - Administrative Road</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 3. Miles of trails on state forest land in this LMU open to various types of recreational use.

<table>
<thead>
<tr>
<th>Trail Category</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiking</td>
<td>7</td>
</tr>
<tr>
<td>Biking</td>
<td>4</td>
</tr>
<tr>
<td>Equestrian</td>
<td>4</td>
</tr>
<tr>
<td>X-Skiing</td>
<td>4</td>
</tr>
<tr>
<td>ATV I</td>
<td>0</td>
</tr>
<tr>
<td>ATV II</td>
<td>0</td>
</tr>
<tr>
<td>Snowmobile/ Joint Use Road</td>
<td>2</td>
</tr>
</tbody>
</table>
**Figure 2.** Acreage of state forest land in this LMU by aggregated forest type. The forest types are described on p. 108 of the 2016 SFRMP. The majority of this LMU is oak heath vegetation on the ridgetops. Most of the side slopes are comprised of oak heath or red oak stands. There are a few drainages and lower slopes that are red oak or tulip poplar stands.

**Figure 3.** Acreage of state forest land in this LMU by site class. Site classes denote the potential quality of the growing site. “Site 0” indicates non-forested lands or forested lands where the vegetation has not
yet been typed. Other site classes are described on p. 53 of 2016 SFRMP. The majority of this LMU is site 3 on the ridgetops. Most of the side slopes are comprised of class 2 sites. There are a few drainages and lower slopes that are site class 1.

**Figure 4.** Acreage of state forest land in this LMU by management zone. Management zone is dictated by primary land use and land capability. Further descriptions of commerciality and zoning are found on p. 54 of the 2016 SFRMP.

**Figure 5.** Acres of state forest land in this LMU by forest age classes
Table 4. Miles of stream by classification within entire LMU. Department of Environmental Protection stream classifications are described in Chapter 93 Water Quality Standards of Title 25 in the Pennsylvania Code.

<table>
<thead>
<tr>
<th>Class</th>
<th>Total (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undesignated</td>
<td>65</td>
</tr>
<tr>
<td>High Quality Waters</td>
<td>10</td>
</tr>
<tr>
<td>Exceptional Value Waters</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
</tr>
</tbody>
</table>

Figure 6. Acres of state forest land in this LMU by Recreation Opportunity Spectrum (ROS) classifications. ROS is an inventory system developed by the U.S. Forest Service, to characterize land by types of recreation experiences. ROS is described on p. 42 of the 2016 SFRMP. “Other Zones” refers to Semi-Developed and Developed zones.

Table 5. Core forest index value for this LMU. The core forest index is a rating value out of 100 that expresses the proportion of the area within the LMU that is increasingly far away from dense areas of fragmenting features. This score is the among the highest, in the district. The score falls within the 74th percentile of all state forest LMUs, making it among the least fragmented areas relative to other portions of state forest land.

<table>
<thead>
<tr>
<th>LMU Name</th>
<th>Core Forest Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Mountain</td>
<td>93</td>
</tr>
</tbody>
</table>
Mahantango Landscape Management Unit

Abstract
The Mahantango LMU is 12,142 acres in size and encompasses the 2,453-acre Taylorsville Tract of the Weiser State Forest. The property was acquired in 1951 and adjoins State Game Lands 84 on Line Mountain. Also, included in this LMU is State Game Lands 132 on Mahantango.
Mountain. State Forest and Game Lands combined, there are approximately 4,677 acres of public accessible land in the Mahantango LMU.

The majority of the landscape is comprised of site 3 dry oak heath forest on the ridge tops with site 2 red oak and mixed oak stands on the lower slopes and drainages. The majority of the LMU was cleared near the turn of the 20th century and areas were picked through in the 1950’s for mine props. There is also evidence of past wildfires on the Taylorsville Tract shown by significant fire scarred trees on Line Mountain and charred stumps on the ridge tops. Other than planting larch and pine in the 1960’s, very little timber management was done on state forest until approximately 2005. Since then, the District has regenerated approximately 400 acres on the Taylorsville Tract. The Game Commission has also increased management activities over the past ten years, using timber sales and prescribed fires to regenerate stands and improve habitat diversity in the LMU.

Moving forward, the management focus in this LMU will be wildlife, timber, and recreation. Ruffed grouse habitat projects are planned for the ridgetop on Taylorsville. The use of prescribed fire is planned to maintain these areas in early successional habitat. Regeneration of site 2 stands on State Forest and Game Lands will continue providing timber for future generations. The lack of trails and the limited road access in this LMU provides an opportunity for recreation advancements.

Priority Goals

1. Utilize prescribed fire in fire-dependent communities to promote desirable regeneration and establish early successional patches for (target wildlife will be ruffed grouse).
2. Successfully regenerate commercial stands to meet the allocation and provide timber products for future generations
3. Manage and expand the recreational opportunities on state forest
4. Manage invasive species on State Forest with emphasis on high-priority EDRR species in Weiser State Forest (Japanese angelica tree, mile-a-minute, non-native bush honeysuckles, jetbead, giant knotweed, and Japanese knotweed). and support the Game Commission and private landowners with gypsy moth control

Profile

Table 1. LMU acreage: total and state forest land only.

<table>
<thead>
<tr>
<th></th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Forest Land</td>
<td>2,453</td>
</tr>
<tr>
<td>LMU Total</td>
<td>12,142</td>
</tr>
</tbody>
</table>

**Ecoregion:** Ridge and Valley
Figure 1. LMU acreage by land cover categories from the National Land Cover Dataset for the entire LMU.

Table 2. Miles of roads by category on state forest land in this LMU. Road categories are described on p. 199 of the 2016 SFRMP.

<table>
<thead>
<tr>
<th>Road Category</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z1 - Public Use Road</td>
<td>5</td>
</tr>
<tr>
<td>Z3 - Administrative Road</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
</tr>
</tbody>
</table>

Table 3. Miles of trails on state forest land in this LMU open to various types of recreational use.

<table>
<thead>
<tr>
<th>Trail Category</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiking</td>
<td>0</td>
</tr>
<tr>
<td>Biking</td>
<td>0</td>
</tr>
<tr>
<td>Equestrian</td>
<td>0</td>
</tr>
<tr>
<td>X-Skiing</td>
<td>0</td>
</tr>
<tr>
<td>ATV I</td>
<td>0</td>
</tr>
<tr>
<td>ATV II</td>
<td>0</td>
</tr>
<tr>
<td>Snowmobile/ Joint Use Road</td>
<td>0</td>
</tr>
</tbody>
</table>
**Figure 2.** Acreage of state forest land in this LMU by aggregated forest type. The forest types are described on p. 108 of the 2016 SFRMP. The majority of the landscape is comprised of dry oak heath forest on the ridge tops with red oak and mixed oak stands on the lower slopes and drainages.

**Figure 3.** Acreage of state forest land in this LMU by site class. Site classes denote the potential quality of the growing site. “Site 0” indicates non-forested lands or forested lands where the vegetation has not
yet been typed. Other site classes are described on p. 53 of 2016 SFRMP. The majority of the landscape is comprised of site 3 forest on the ridge tops with site 2 stands on the lower slopes and drainages.

Figure 4. Acreage of state forest land in this LMU by management zone. Management zone is dictated by primary land use and land capability. Further descriptions of commerciality and zoning are found on p. 54 of the 2016 SFRMP.
Figure 5. Acres of state forest land in this LMU by forest age classes. The majority of the LMU was cleared near the turn of the century and areas were picked through in the 1950’s for mine props. Very little management was done on state forest until approximately 2005. Since then, the District has regenerated approximately 400 acres on the Taylorsville Tract.

Table 4. Miles of stream by classification within entire LMU. Department of Environmental Protection stream classifications are described in Chapter 93 Water Quality Standards of Title 25 in the Pennsylvania Code.

<table>
<thead>
<tr>
<th>Class</th>
<th>Total (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undesignated</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
</tr>
</tbody>
</table>

Figure 6. Acres of state forest land in this LMU by Recreation Opportunity Spectrum (ROS) classifications. ROS is an inventory system developed by the U.S. Forest Service, to characterize land by types of recreation experiences. ROS is described on p. 42 of the 2016 SFRMP. “Other Zones” refers to Semi-Developed and Developed zones.

Table 5. Core forest index value for this LMU. The core forest index is a rating value out of 100 that expresses the proportion of the area within the LMU that is increasingly far away from dense areas of
fragmenting features. The score falls within the 63rd percentile of all state forest LMUs, making it a relatively unfragmented area compared to other portions of state forest land.

<table>
<thead>
<tr>
<th>LMU Name</th>
<th>Core Forest Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Braddock West</td>
<td>90</td>
</tr>
</tbody>
</table>

Mahantango LMU
Mammoth Vein
Landscape Management Unit

Abstract
The Mammoth Vein LMU is 32,257 acres in size and encompasses 1,681 acres of the Weiser State Forest, Roaring Creek Tract. This is the minority of the Roaring Creek Tract, which totals 9,037 acres. The Roaring Creek Tract was acquired in 2003 from Aqua America Company with the agreement that the water rights would remain with Aqua America. The Mammoth Vein also includes State Game Lands 329 which is 1,742 acres. The LMU is in the Ridge and Valley ecoregion and matches the description well as it is situated in the anthracite coal rich valley between Little Mountain and Mahanoy Mountain.

This LMU was named after a vein of coal the locals call the mammoth vein. The majority of this LMU land use is based on past and present mining operations. Towns in this LMU such as Mt. Carmel, Ashland, Kulpmont and Centralia were built to support the coal mining industry. The scarred landscape has unique characteristics that provide recreational opportunities and diverse habitat structure. There are uncounted miles of abandoned mining roads and trails that provide access to remote areas. Many of the mining pits have filled with water creating habitat for wildlife and recreation opportunities for the public. Succession has begun on many of the abandoned strip mines creating a mosaic landscape of grass openings, patches of scrub oak and other shrub species, and young stands of pioneer species such as aspen and stands of mature mixed oak. The majority of the LMU is site 3 and dominated by dry oak heath vegetation. Wildlife seems to thrive in this mosaic habitat and many opportunities exist to further improve the habitat through strip mine reclamation projects. Prescribed fire could be utilized in this LMU to retain the habitat structure in the future.

The land use on state forest mirrors that of private ground in this LMU, the only difference being the lack of motorized recreation on state forest. Access to state forest in this LMU is good, with our District office being located along Rt42 near Aristes and a new parking area being constructed along Rt54 near Natalie. Mountain biking and hiking are very popular in this area and the expansion of State Forest trail system is likely. Prescribed fire is planned on this section of state forest to promote scrub oak and other early successional habitat. Reclamation projects a likely to continue in Columbia County while projects in Northumberland County may be slowed due to the commonwealth not owning sub-surface rights and active mine leases.

Priority Goals
1. Provide quality recreational opportunities by maintaining the current trail system and expanding it to meet user needs without compromising the primitive experience.
2. Utilize prescribed fire in fire-dependent communities to promote desirable regeneration and establish ESH patches for ruffed grouse, golden winged warblers, prairie warbler, etc.

3. Utilize Service Forestry on large private parcels to promote recreation and vegetation management for specialist wildlife species.

Profile

Table 1. LMU acreage: total and state forest land only.

<table>
<thead>
<tr>
<th></th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Forest Land</td>
<td>1,681</td>
</tr>
<tr>
<td>LMU Total</td>
<td>32,257</td>
</tr>
</tbody>
</table>

Ecoregion: Ridge and Valley

Figure 1. LMU acreage by land cover categories from the National Land Cover Dataset for the entire LMU.

Table 2. Miles of roads by category on state forest land in this LMU. Road categories are described on p. 199 of the 2016 SFRMP.

<table>
<thead>
<tr>
<th>Road Category</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z1 - Public Use Road</td>
<td>1</td>
</tr>
<tr>
<td>Z3 - Administrative Road</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 3. Miles of trails on state forest land in this LMU open to various types of recreational use.
<table>
<thead>
<tr>
<th>Trail Category</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiking</td>
<td>18</td>
</tr>
<tr>
<td>Biking</td>
<td>18</td>
</tr>
<tr>
<td>Equestrian</td>
<td>0</td>
</tr>
<tr>
<td>X-Skiing</td>
<td>18</td>
</tr>
<tr>
<td>ATV I</td>
<td>0</td>
</tr>
<tr>
<td>ATV II</td>
<td>0</td>
</tr>
<tr>
<td>Snowmobile/ Joint Use Road</td>
<td>0</td>
</tr>
</tbody>
</table>

**Figure 2.** Acreage of state forest land in this LMU by aggregated forest type. The forest types are described on p. 108 of the 2016 SFRMP.
**Figure 3.** Acreage of state forest land in this LMU by site class. Site classes denote the potential quality of the growing site. “Site 0” indicates non-forested lands or forested lands where the vegetation has not yet been typed. Other site classes are described on p. 53 of 2016 SFRMP.

<table>
<thead>
<tr>
<th>Site Class</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site 0</td>
<td>234</td>
</tr>
<tr>
<td>Site 1</td>
<td>3</td>
</tr>
<tr>
<td>Site 2</td>
<td>156</td>
</tr>
<tr>
<td>Site 3</td>
<td>1,288</td>
</tr>
</tbody>
</table>

**Figure 4.** Acreage of state forest land in this LMU by management zone. Management zone is dictated by primary land use and land capability. Further descriptions of commerciality and zoning are found on p. 54 of the 2016 SFRMP.

- M&N = multiple resource zone, non-commercial
- M&C = multiple resource zone, commercial
- L = limited resource zone
- N = natural area
- W = wild area
- S = special resource management zone
- H = anthropogenic management zone
- U = lands where zoning is unknown
**Figure 5.** Acres of state forest land in this LMU by forest age classes.

**Table 4.** Miles of stream by classification within entire LMU. Department of Environmental Protection stream classifications are described in Chapter 93 Water Quality Standards of Title 25 in the Pennsylvania Code.

<table>
<thead>
<tr>
<th>Class</th>
<th>Total (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undesignated</td>
<td>47</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>47</strong></td>
</tr>
</tbody>
</table>
**Figure 6.** Acres of state forest land in this LMU by Recreation Opportunity Spectrum (ROS) classifications. ROS is an inventory system developed by the U.S. Forest Service, to characterize land by types of recreation experiences. ROS is described on p. 42 of the 2016 SFRMP. “Other Zones” refers to Semi-Developed and Developed zones.

**Table 5.** Core forest index value for this LMU. The core forest index is a rating value out of 100 that expresses the proportion of the area within the LMU that is increasingly far away from dense areas of fragmenting features. The score falls within the 24th percentile of all state forest LMUs, making it a relatively fragmented area compared to other portions of state forest land.

<table>
<thead>
<tr>
<th>LMU Name</th>
<th>Core Forest Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammoth Vein</td>
<td>75</td>
</tr>
</tbody>
</table>
Abstract
The 30,407-acre Rattling Creek LMU is located in the southwestern portion of Weiser State Forest. The majority of this LMU is in Dauphin County with just a small portion in Schuylkill County on the east side. A large percentage of this LMU is public land with 8,311 acres of State Forest and 11,236 acres being State Game Lands 210. The state forest acreage is comprised of the Haldeman Tract and the Greenland Tract. The Haldeman is the oldest tract of the Weiser State Forest. The first parcel was
acquired in 1902, which preceded three other acquisitions in 1917, 1953, and 1982. The Greenland Tract was acquired in 1953 and additional parcel was acquired in 1963.

This LMU has a rich history involving the Civilian Conservation Corps (CCC) and large wildfires. The infrastructure of the Haldeman Tract is based on the CCC work that was completed between 1933-1942. There was a camp set up on this tract and some of the buildings are still in use. Between the years of 1935 and 1964, nearly 26,000 acres burned across this LMU. It is unclear which areas burned most frequently, but District notes suggest the Greenland Tract was completely burned between 1935 and 1952.

In 1957, District Forester, Nevin Slusser began to plan a reforestation effort for the Greenland. According to District files, it was believed that the only way to bring this landscape into commercial status was to plant patches of fire resistant trees. So, between 1958 and 1970, there were over 690,000 seedlings and 12 ½ pounds of seed planted on the Greenland and Haldeman Tracts. The majority of the seedlings and seed were Japanese larch with others consisting of European larch, white pine, red pine, Austrian pine, Virginia pine, pitch pine, Eastern hemlock, Norway spruce and white spruce. The majority of the larch species were planted at the Greenland. In order to prepare the site for planting Mr. Slusser decided to root rake the majority of the planting areas and dozer plow the rest. Most of these seedlings did not stand the test of time but some have become established on the landscape and the larch has begun to naturally regenerate on the Greenland. It is believed that the name Greenland most likely developed from the high amount of pitch pine in the area. Early settlers used this resource to their advantage to make turpentine and lumber.

The Rattling Creek LMU management is diversely balanced between recreation, timber management, and wildlife habitat management. The ridge tops are dominated by site 3 stands, some being non-commercial and others being commercial. The Haldeman Tract has a fair amount of site 2 stands with a few site 1 stands in drainages and low slopes. Most of the vegetation in this LMU is mixed oak and ridge tops are very dry oak heath. In 2017, glossy buckthorn, a non-native invasive shrub was detected growing in the Haldeman tract. This species is considered a high priority for control and management statewide due to its threat to forest and wetland ecosystems. Projects have been completed on state forest to improve habitat for specialist species such as ruffed grouse and golden winged warbler. More projects are in the planning phases with the hopes of providing diverse habitat across the LMU. The Game Commission has also completed early successional habitat projects and plan to continue their efforts. Recreation is very important in this LMU and the “Friends of Weiser” volunteer organization is based out of the Haldeman Tract. The largest snowmobile trail system in the Weiser State Forest is located in this LMU. It spans all three tracts of public land with multiple access points.

**Priority Goals**

1. Provide diverse recreational opportunities including shared use, (bike, hike and equine) and snowmobile trails through cooperation with the Game Commission.

2. Manage commercial stands to meet allocation, provide forest products to the wood industry, provide commercial stands for future generations and provide habitat diversity within the LMU.

3. Manage invasive species in cooperation with the Game Commission with emphasis on high-priority EDRR plant species in Weiser State Forest (glossy buckthorn, Japanese angelica tree,
mile-a-minute, non-native bush honeysuckles, jetbead, giant knotweed, and Japanese knotweed).

4. Protect the integrity of exceptional value streams
5. Utilize prescribed fire in fire-dependent communities to promote desirable regeneration and establish ESH patches for ruffed grouse, golden winged warblers and prairie warblers.
6. Establish and maintain the Greenland Early Successional Eco-system Restoration Habitat Inter-agency Cooperation landscape project between Weiser Forest and PA Game Commission.

Profile

**Table 1.** LMU acreage: total and state forest land only.

<table>
<thead>
<tr>
<th>Ecoregion: Ridge and Valley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1. LMU acreage: total and state forest land only.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Road Category</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z1 - Public Use Road</td>
<td>15</td>
</tr>
<tr>
<td>Z2 - Drivable Trail</td>
<td>3</td>
</tr>
<tr>
<td>Z3 - Administrative Road</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>
Table 3. Miles of trails on state forest land in this LMU open to various types of recreational use. The largest snowmobile trail system in the Weiser State Forest is located in this LMU. It spans all three tracts of public land with multiple access points.

<table>
<thead>
<tr>
<th>Trail Category</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiking</td>
<td>26</td>
</tr>
<tr>
<td>Biking</td>
<td>24</td>
</tr>
<tr>
<td>Equestrian</td>
<td>24</td>
</tr>
<tr>
<td>X-Skiing</td>
<td>24</td>
</tr>
<tr>
<td>ATV I</td>
<td>0</td>
</tr>
<tr>
<td>ATV II</td>
<td>0</td>
</tr>
<tr>
<td>Snowmobile/ Joint Use Road</td>
<td>16</td>
</tr>
</tbody>
</table>

Figure 2. Acreage of state forest land in this LMU by aggregated forest type. The forest types are described on p. 108 of the 2016 SFRMP. Most of the vegetation in this LMU is mixed oak and ridge tops are very dry oak heath.
Figure 3. Acreage of state forest land in this LMU by site class. Site classes denote the potential quality of the growing site. “Site 0” indicates non-forested lands or forested lands where the vegetation has not yet been typed. Other site classes are described on p. 53 of 2016 SFRMP. The ridge tops are dominated by site 3 stands, some being non-commercial and others being commercial. The Haldeman Tract has a fair amount of site 2 stands with a few site 1 stands in drainages and low slopes.
Figure 4. Acreage of state forest land in this LMU by management zone. Management zone is dictated by primary land use and land capability. Further descriptions of commerciality and zoning are found on p. 54 of the 2016 SFRMP.

![Acreage of state forest land in this LMU by management zone](image)

Figure 5. Acres of state forest land in this LMU by forest age classes.

Table 4. Miles of stream by classification within entire LMU. Department of Environmental Protection stream classifications are described in Chapter 93 Water Quality Standards of Title 25 in the Pennsylvania Code.

<table>
<thead>
<tr>
<th>Class</th>
<th>Total (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undesignated</td>
<td>20</td>
</tr>
<tr>
<td>High Quality Waters</td>
<td>4</td>
</tr>
<tr>
<td>Exceptional Value Waters</td>
<td>29</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>53</strong></td>
</tr>
</tbody>
</table>
**Figure 6.** Acres of state forest land in this LMU by Recreation Opportunity Spectrum (ROS) classifications. ROS is an inventory system developed by the U.S. Forest Service, to characterize land by types of recreation experiences. ROS is described on p. 42 of the 2016 SFRMP. “Other Zones” refers to Semi-Developed and Developed zones.

**Table 5.** Core forest index value for this LMU. The core forest index is a rating value out of 100 that expresses the proportion of the area within the LMU that is increasingly far away from dense areas of fragmenting features. This score is the highest within the district and falls within the 91st percentile of all state forest LMUs, making it among the least fragmented areas of all state forest land.

<table>
<thead>
<tr>
<th>LMU Name</th>
<th>Core Forest Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rattling Creek</td>
<td>96</td>
</tr>
</tbody>
</table>
Abstract
The Roaring Creek LMU is 11,023 acres in size and encompasses 7,356 acres of the Weiser State Forest, Roaring Creek Tract. This is the majority of the Roaring Creek Tract, which totals 9,037 acres, and is located in the Southern part of Northumberland and Columbia counties. The property was acquired in 2003 from Aqua America Company with the agreement that the water rights would remain with Aqua America. There are 850 acres designated as High Conservation Value Forest to protect this public water resource. The LMU
is in the Ridge and Valley ecoregion and matches the description well. Little Mountain to the North and Big Mountain to the South set the boundaries of Roaring Creek South Branch headwaters.

Roaring Creek Water Company was founded in 1884. Curtis Q. (CQ) McWilliams was one of the incorporators. Descendants of CQ gradually acquired ownership and continued the family tradition of supplying high quality water for over 100 years. Remnants of the families’ work remains in old homestead foundations of properties they acquired and reservoirs that have been retired throughout the years.

Prior to Commonwealth ownership the property was managed for game species such as white-tailed deer and grouse. This can be seen by small openings created for early successional habitat and a stand of aspen that was planted to promote grouse habitat. Along with the good projects came some questionable ones. Many of the lower slopes were stripped of red oak. This was done to promote white oak, which was thought to be preferred by white-tailed deer. This left us with monoculture stands of white oak that are nearly understocked. Also, the white-tailed deer population was far beyond carrying capacity due to the lack of hunting pressure. As a result, many stands lack desirable regeneration and have understories that are dominated by hay-scented fern.

The majority of the landscape is comprised of mixed oak site 2 stands with some site 1 red oak and northern hardwoods stands on the lower slopes and drainages. Over 75% of the tract is zoned commercial although access to the northern half of the tract is limited due to insufficient stream crossings. The management of this LMU has been balanced between silviculture, wildlife, and recreation since acquired by the commonwealth. Increased hunting pressure and projects done through the regeneration fund have improved the habitat for some species and allowed for successful regeneration of stands. Gypsy moth populations were very high in this LMU in 2014 and 2015. This resulted in moderate oak mortality across the LMU and a salvage timber sale on the western part of the Roaring Creek Tract in 2017.

The recreation backbone of this LMU is Roaring Creek Trail. The scenic views along this 8 mile trail between Route 54 and Route 42 provide a peaceful non-motorized recreation opportunity. With parking lots on each end of Roaring Creek trail, recreation users can easily access the nearly 30 miles of shared use trails in this LMU. Also, catch and release fishing is permitted in all three reservoirs, and non-motorized boating is permitted in two of the reservoirs.

Priority Goals

1. Provide protection of the watershed that the public relies
2. Successfully regenerate commercial stands for future generations
3. Maintain wildlife habitat projects and increase their use on non-commercial sites
5. Provide quality recreational opportunities by maintaining the current trail system and expanding it to meet the needs of the users without compromising the primitive experience
Profile

Table 1. LMU acreage: total and state forest land only.

<table>
<thead>
<tr>
<th></th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Forest Land</td>
<td>8,146</td>
</tr>
<tr>
<td>LMU Total</td>
<td>16,456</td>
</tr>
</tbody>
</table>

Ecoregion: Ridge and Valley

Figure 1. LMU acreage by land cover categories from the National Land Cover Dataset for the entire LMU.

Table 2. Miles of roads by category on state forest land in this LMU. Road categories are described on p. 199 of the 2016 SFRMP.

<table>
<thead>
<tr>
<th>Road Category</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z1 - Public Use Road</td>
<td>3</td>
</tr>
<tr>
<td>Z2 - Drivable Trail</td>
<td>1</td>
</tr>
<tr>
<td>Z3 - Administrative Road</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Table 3. Miles of trails on state forest land in this LMU open to various types of recreational use. The recreation backbone of this LMU is Roaring Creek Trail. The scenic views along this 8 mile trail between Route 54 and Route 42 provide a peaceful non-motorized recreation opportunity. With parking lots on each end of Roaring Creek trail, recreation users can easily access the nearly 30 miles of shared use trails in this LMU.

<table>
<thead>
<tr>
<th>Trail Category</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiking</td>
<td>29</td>
</tr>
<tr>
<td>Biking</td>
<td>29</td>
</tr>
<tr>
<td>Forest Type</td>
<td>Acres</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Equestrian</td>
<td>1</td>
</tr>
<tr>
<td>X-Skiing</td>
<td>24</td>
</tr>
<tr>
<td>ATV I</td>
<td>0</td>
</tr>
<tr>
<td>ATV II</td>
<td>0</td>
</tr>
<tr>
<td>Snowmobile/Joint Use Road</td>
<td>0</td>
</tr>
</tbody>
</table>

**Figure 2.** Acreage of state forest land in this LMU by aggregated forest type. The forest types are described on p. 108 of the 2016 SFRMP. The majority of the landscape is comprised of mixed oak stands with some red oak and northern hardwoods stands on the lower slopes and drainages.
**Figure 3.** Acreage of state forest land in this LMU by site class. Site classes denote the potential quality of the growing site. “Site 0” indicates non-forested lands or forested lands where the vegetation has not yet been typed. Other site classes are described on p. 53 of 2016 SFRMP. The majority of the landscape is comprised of site 2 stands with some site 1 stands on the lower slopes and drainages.

- **Site 0:** 579 acres
- **Site 1:** 1,312 acres
- **Site 2:** 3,675 acres
- **Site 3:** 1,790 acres

**Legend:**
- M&C = multiple resource zone, commercial
- M&N = multiple resource zone, non-commercial
- L = limited resource zone
- N = natural area
- W = wild area
- S = special resource management zone
- H = anthropogenic management zone
- U = lands where zoning is unknown
Figure 4. Acreage of state forest land in this LMU by management zone. Management zone is dictated by primary land use and land capability. Further descriptions of commerciality and zoning are found on p. 54 of the 2016 SFRMP. Over 75% of the tract is zoned commercial although access to the northern half of the tract is limited due to insufficient stream crossings. The management of this LMU has been balanced between silviculture, wildlife, and recreation since acquired by the commonwealth.

Figure 5. Acres of state forest land in this LMU by forest age classes.

Table 4. Miles of stream by classification within entire LMU. Department of Environmental Protection stream classifications are described in Chapter 93 Water Quality Standards of Title 25 in the Pennsylvania Code.

<table>
<thead>
<tr>
<th>Class</th>
<th>Total (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Quality Waters</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
</tr>
</tbody>
</table>
**Figure 6.** Acres of state forest land in this LMU by Recreation Opportunity Spectrum (ROS) classifications. ROS is an inventory system developed by the U.S. Forest Service, to characterize land by types of recreation experiences. ROS is described on p. 42 of the 2016 SFRMP. “Other Zones” refers to Semi-Developed and Developed zones.

**Table 5.** Core forest index value for this LMU. The core forest index is a rating value out of 100 that expresses the proportion of the area within the LMU that is increasingly far away from dense areas of fragmenting features. The score falls within the 70th percentile of all state forest LMUs, making it among the least fragmented areas relative to other portions of state forest land.

<table>
<thead>
<tr>
<th>LMU Name</th>
<th>Core Forest Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roaring Creek</td>
<td>92</td>
</tr>
</tbody>
</table>
Abstract
The Susquehanna Main Stem LMU consist of 32,222 acres located on the western boundary of the Weiser State Forest District. The landscape consists of the Susquehanna River Main Stem starting at Sunbury, extending south to the district boundary line. Within the main stem, there are 450 river islands totaling 1,055 acres. The Weiser State Forest takes pride in its river island system and has partnered with the Susquehanna River Trail Association (SRTA) to promote sustainable use and stewardship of the river. This partnership has provided recreational opportunities along the 54-mile river trail on the main branch, including 22 campsites on 20 islands designated for day use and primitive camping. The SRTA also created a public map of the river trail to denote campsite locations, island ownership, and river features for river recreationists.

Priority Goals
1. Provide and maintain healthful, low-density recreational opportunities and experiences.

Profile

Table 1. LMU acreage: total and state forest land only.

<table>
<thead>
<tr>
<th></th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Forest Land</td>
<td>1,055</td>
</tr>
<tr>
<td>LMU Total</td>
<td>32,222</td>
</tr>
</tbody>
</table>

Ecoregion: Ridge and Valley
Figure 1. LMU acreage by land cover categories from the National Land Cover Dataset for the entire LMU. The majority of this LMU is covered by open water and the majority of the islands are owned by governmental agencies.

Table 2. Miles of roads by category on state forest land in this LMU. Road categories are described on p. 199 of the 2016 SFRMP. No trails or roads within this LMU.

<table>
<thead>
<tr>
<th>Road Category</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z1 - Public Use Road</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 3. Miles of trails on state forest land in this LMU open to various types of recreational use. No trails or roads within this LMU. Partnership with SRTA has provided recreational opportunities along the 54-mile river trail on the main branch, including 22 campsites on 20 islands designated for day use and primitive camping. The SRTA also created a public map of the river trail to denote campsite locations, island ownership, and river features for river recreationists.

<table>
<thead>
<tr>
<th>Trail Category</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiking</td>
<td>0</td>
</tr>
<tr>
<td>Biking</td>
<td>0</td>
</tr>
<tr>
<td>Equestrian</td>
<td>0</td>
</tr>
<tr>
<td>X-Skiing</td>
<td>0</td>
</tr>
<tr>
<td>ATV I</td>
<td>0</td>
</tr>
<tr>
<td>ATV II</td>
<td>0</td>
</tr>
<tr>
<td>Snowmobile/ Joint Use Road</td>
<td>0</td>
</tr>
</tbody>
</table>
Figure 2. Acreage of state forest land in this LMU by aggregated forest type. The forest types are described on p. 108 of the 2016 SFRMP.
Figure 3. Acreage of state forest land in this LMU by site class. Site classes denote the potential quality of the growing site. “Site 0” indicates non-forested lands or forested lands where the vegetation has not yet been typed. Other site classes are described on p. 53 of 2016 SFRMP.

Figure 5. Acres of state forest land in this LMU by forest age classes.
Table 4. Miles of stream by classification within entire LMU. Department of Environmental Protection stream classifications are described in Chapter 93 Water Quality Standards of Title 25 in the Pennsylvania Code.

<table>
<thead>
<tr>
<th>Class</th>
<th>Total (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undesignated</td>
<td>189</td>
</tr>
<tr>
<td>Total</td>
<td>189</td>
</tr>
</tbody>
</table>

Figure 6. Acres of state forest land in this LMU by Recreation Opportunity Spectrum (ROS) classifications. ROS is an inventory system developed by the U.S. Forest Service, to characterize land by types of recreation experiences. ROS is described on p. 42 of the 2016 SFRMP. “Other Zones” refers to Semi-Developed and Developed zones.

Table 5. Core forest index value for this LMU. The core forest index is a rating value out of 100 that expresses the proportion of the area within the LMU that is increasingly far away from dense areas of fragmenting features. The low score is due to the absence of forest canopy over most of the LMU.

<table>
<thead>
<tr>
<th>LMU Name</th>
<th>Core Forest Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Braddock West</td>
<td>9</td>
</tr>
</tbody>
</table>
Pohopoco
Landscape Management Unit

Abstract
The Pohopoco Landscape Management Unit (LMU) is located in Monroe and Carbon counties. The LMU is 74,298 acres in size and has 3,087 acres of State Forest Land in it. The LMU has parts of the Delaware State Forest, Weiser State Forest, Hickory Run State Park, Lehigh Gorge State Park, and State Gamelands #38, 318, 141, and 129. The Pohopoco LMU lies in the Glaciated Pocono Plateau and Ridge and Valley Ecoregion.

The Pohopoco LMU is 80% forested, with deciduous forest being the most common 58%. The LMU has a couple large housing developments in the southeastern portion of it. They make up 14% of the LMU. Most of the LMU is composed of smaller size class trees and scrubs in the 60 to 70 year old range. Much of the eastern portion of the LMU was burned repeatedly until the 1950’s. The Pohopoco fire tower was used until recently for spotting wildfires. Scrub oak is a major component of the area.

The Dixon Miller tract of the Delaware State Forest was purchased in the mid 1940’s as an experimental hydrological tract. It was named the Dilldown project of the Delaware – Lehigh Experimental forest. It was studied by the US Department of Agriculture and Interior. Many areas were planted with Red Pine, White Pine, and Larch to control the wildfires. Numerous other species were planted throughout the experimental forest and did not survive. The area had numerous weather stations, ground water stations, and a stream flow station. The tract has a well known frost pocket that is inhabited by little vegetation because of the cold temperatures. The tract was renamed the Dixon Miller Recreation Area after the long time towerman who live there for decades.

There has only been one recent timber harvest on the Dixon Miller tract. It was 250 acres of row thinning in the pine plantations. The tract has 15 miles of ATV snowmobile trails which are used heavily throughout the year. The tract has abundant illegal ATV use. The southern portion of the trail system was redone a couple years ago. Hunting and hiking area other popular recreational activities in the LMU. There are numerous species of special concern in the LMU. Most of the Dixon Miller tract is non-commercial land base. This is because of the poor quality timber, steepness, and rocky areas.

Penn Forest Tract, second parcel of state forest land, containing 958 acres (Weiser State Forest) in Penn Forest Township, Carbon County. The original tract contained 170 acres, which was purchased in 1928. This parcel was an internal holding surrounded by the Bethlehem Water Authority property and was traded to them for the present 958 acres just west of their property in 1948.
**Priority Goals**

1. Maintain the Dixon Miller Recreation area as a low density recreational opportunity area and simultaneously offering sustainable motorized recreation and protecting the valuable natural resources.

2. Maintain the Penn Forest tract as an area for dispersed, non-motorized, low density shared use recreation.

3. To conserve, manage, and enhance the early successional wildlife habitats in the landscape and ecosystem.

4. To identify, conserve, and enhance a diversity of habitats for plant species and their communities.

**Profile** *(data presented for SFL only unless noted otherwise)*

- **SFL Acres:** 3,087
- **Total LMU Acres:** 74,298
- **Ecoregion:** Glaciated Pocono Plateau

**Land Cover (entire LMU)**

<table>
<thead>
<tr>
<th>Land Cover</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barren Land</td>
<td>50,000</td>
</tr>
<tr>
<td>Cultivated Crops</td>
<td>45,000</td>
</tr>
<tr>
<td>Deciduous Forest</td>
<td>40,000</td>
</tr>
<tr>
<td>Developed, High Intensity</td>
<td>35,000</td>
</tr>
<tr>
<td>Developed, Low Intensity</td>
<td>30,000</td>
</tr>
<tr>
<td>Developed, Medium Intensity</td>
<td>25,000</td>
</tr>
<tr>
<td>Emergent Herbaceous Wetlands</td>
<td>20,000</td>
</tr>
<tr>
<td>Evergreen Forest</td>
<td>15,000</td>
</tr>
<tr>
<td>Hay/Pasture</td>
<td>10,000</td>
</tr>
<tr>
<td>Herbaceous</td>
<td>5,000</td>
</tr>
<tr>
<td>Mixed Forest</td>
<td>1,000</td>
</tr>
<tr>
<td>Open Water</td>
<td>1,000</td>
</tr>
<tr>
<td>Woody Wetlands</td>
<td>1,000</td>
</tr>
</tbody>
</table>

**Roads and Trails**

<table>
<thead>
<tr>
<th>Road Category</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z1 - Public Use Road</td>
<td>1</td>
</tr>
<tr>
<td>Z3 - Administrative Road</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7</strong></td>
</tr>
<tr>
<td>Trail Category</td>
<td>Total Miles</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Hiking</td>
<td>36</td>
</tr>
<tr>
<td>Biking</td>
<td>29</td>
</tr>
<tr>
<td>Equestrian</td>
<td>29</td>
</tr>
<tr>
<td>X-Skiing</td>
<td>29</td>
</tr>
<tr>
<td>ATV I</td>
<td>15</td>
</tr>
<tr>
<td>ATV II</td>
<td>15</td>
</tr>
<tr>
<td>Snowmobile</td>
<td>15</td>
</tr>
<tr>
<td>Joint Use</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>169</strong></td>
</tr>
</tbody>
</table>

**Aggregated Forest Types (acres)**

```
<table>
<thead>
<tr>
<th>Site Class (acres)</th>
<th>1,650</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conifers</td>
<td>398</td>
</tr>
<tr>
<td>Other Hardwoods</td>
<td>305</td>
</tr>
<tr>
<td>Other Oak</td>
<td>735</td>
</tr>
<tr>
<td>(blank)</td>
<td></td>
</tr>
</tbody>
</table>
```

**Total**: 1,650 acres

**Conifers**: 398 acres
**Other Hardwoods**: 305 acres
**Other Oak**: 735 acres

**(blank)**: 0 acres
Zoning (acres)

Forest Age Class Distribution
### Streams by Class

<table>
<thead>
<tr>
<th>Class</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceptional Value</td>
<td>11.8</td>
</tr>
<tr>
<td>High Quality</td>
<td>114.1</td>
</tr>
<tr>
<td>Warm Water Stream</td>
<td>16.2</td>
</tr>
<tr>
<td>Total</td>
<td><strong>142.1</strong></td>
</tr>
</tbody>
</table>

### Bar Chart

- **Total**

- Age Distribution:
  - 0 - 10
  - 21 - 30
  - 51 - 60
  - 61 - 70
  - 71 - 80
  - 81 - 90
  - 91 - 100
  - No Age
Recreation Opportunity Spectrum (ROS)

Core Forest Index

80

Pohopoco LMU
Weiser Forest District Interpretive Plan  

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  - District Interpretive Goals

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  - Outputs, Outcomes & Impacts

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  - Current Visitors
  - Current Web Visitors
  - Key Audiences
  - Future Markets & Trends

Theme & Subthemes

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  - Personal
  - Non-personal

Issues, Challenges and Opportunities

Recommendations
  - Personal
  - Non-personal

Evaluation Strategies
Introduction

It is the intent of the Bureau of Forestry to have an interpretive plan in place within each state forest district. Once completed, this plan can stand alone or be placed as an addendum to the District Resource Management Plan. This plan is directly linked to the State Forest Resource Management Plan through key messages and guiding principles.

Interpretation is defined as a mission-based communication process that forges emotional and intellectual connections between the interests of the audience and the meanings inherent in the resource. The interpretive plan is a goal driven process that helps us achieve our mission, protect the resource and provide visitors with the best possible interpretive service.

This State Forest District Interpretive Plan uses a thoughtful planning process to identify the stories, management issues and resources that are specific to each state forest district. Completed plans will help us determine which communication strategies are best suited for achieving our goals and setting priorities will help allocate funds for interpretive projects. Resource conservation requires public understanding and support. Interpretation is one tool to help us achieve that goal.
DCNR and Bureau of Forestry Missions and Key Messages

Both the department and bureau missions and key messages should be present in our interpretive efforts. Keep these in mind as you plan your interpretive projects. If an interpretive project does not address our mission or contain a key message, it should not be considered.

The Bureau of Forestry’s Mission…
…is to ensure the long-term health, viability and productivity of the commonwealth’s forests and to conserve native wild plants.

Bureau of Forestry’s Key Messages:
The Bureau of Forestry has developed a set of forest-related key messages that complements the department’s communications efforts. The bureau considers and uses these key messages when developing communications products.

Natural resources are critical to our health, economy, and quality of life.
• Forests are Pennsylvania’s principal land use.
• Forests provide vital services to society. They clean our air, purify our water, provide habitat for plants and animals, and support key ecological processes.
• Forests provide a renewable source of wood products to society.

Everyone uses and has the opportunity to enjoy Pennsylvania’s vast natural resources.
• Healthy forests benefit all citizens, no matter where they live.
• Forests provide nearly boundless opportunities for healthful recreation.
• Forests serve as a source of inspiration and wonder.
• There is a forest to explore near you.

DCNR leads everyday efforts to conserve Pennsylvania’s natural resources and connect people to the outdoors.
• DCNR Bureau of Forestry leads Pennsylvania in forest and native wild plant conservation and stewardship.
• DCNR Bureau of Forestry seeks to foster an awareness of the forests’ many uses and values and inspire people to conserve them.

The future of Pennsylvania’s natural resources depends on you.
• People and communities every day shape the future of Pennsylvania’s forests.
• Sustaining our forests and associated values depends on wise stewardship.
• We have a responsibility to manage our forests for current and future generations.
State Forest Resource Management Plan: Communications Management Principle

This guiding principle for Communication Management is established in our State Forest Resource Management Plan and should assist in setting the direction of interpretive efforts.

<table>
<thead>
<tr>
<th><strong>Communications Management Principle</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The citizens of Pennsylvania appreciate the forests of Pennsylvania and their resources and values and are engaged in the issues that affect them.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Goals</strong></th>
<th><strong>Objectives</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To provide education and interpretive opportunities regarding the values, services, and benefits of sustainable forest management.</td>
<td>1.1 Promote Project Learning Tree with Pennsylvania educators and youth leaders through workshops and material support.</td>
</tr>
<tr>
<td></td>
<td>1.2 Promote forestry and conservation through public education and outreach such as the statewide Envirothon, natural gas tours, ECO Camp, and other public programming partnerships.</td>
</tr>
<tr>
<td></td>
<td>1.3 Provide forest demonstration areas throughout the state forest system that show forest management practices.</td>
</tr>
<tr>
<td></td>
<td>1.4 Create statewide and district interpretive plans and increase the use of interpretive resources.</td>
</tr>
<tr>
<td></td>
<td>1.5 Promote a public stewardship ethic regarding the commonwealth's forests and wild plant resources.</td>
</tr>
<tr>
<td></td>
<td>1.6 Develop state-of-the-art resource management centers to house educational displays and stimulate interest in forest conservation.</td>
</tr>
<tr>
<td>2. To provide customer service and information that promote the use and enjoyment of the state forest system.</td>
<td>2.1 Maintain a steady and available supply of our public use maps, guides, and printed materials.</td>
</tr>
<tr>
<td></td>
<td>2.2 Continually update and utilize electronic media, providing information in an engaging format on the bureau and its work.</td>
</tr>
<tr>
<td>3. To engage the public and consider input in state forest management decisions.</td>
<td>3.1 Utilize advisory committees to engage stakeholders.</td>
</tr>
<tr>
<td></td>
<td>3.2 Provide information on forests, forest issues, and native wild plants.</td>
</tr>
<tr>
<td></td>
<td>3.3 Plan and coordinate public meetings on specific bureau topics including the SFRMP process and shale-gas management as well as issues of local interest at the district level.</td>
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<td></td>
<td>3.4 Monitor and respond to social media questions and comments.</td>
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</tbody>
</table>
3.5 Coordinate responses to public inquiries on state forest management topics.
Overview of Weiser State Forest

Introduction

Located in eastern Pennsylvania, Weiser State Forest is named for diplomat Conrad Weiser. He was a great leader of the colonial period who served as an interpreter between colonists and their Native American neighbors. The Weiser State Forest consists of 29,002 acres on 13 tracts in Dauphin, Carbon, Columbia, Northumberland, Schuylkill, and Northern Berks Counties. A plethora of activities can be enjoyed on the Weiser including; hiking, picnicking, camping, mountain biking, horseback riding, boating, cross-country skiing, snowmobiling, geo-cashing, hunting and fishing. Also, two natural areas and a hang gliding launch area exist on the Weiser.

The Roaring Creek Tract in southern Columbia and Northumberland Counties has restrictions posted at the entrances to the parcel; visitors should familiarize themselves with these special rules. This tract is 9,062 acres. The Miner Path Trails on the Roaring Creek Tract were developed using old maps with delineated foot paths used by coal miners. Miners traveled across the Roaring Creek Valley to work in the mines in the Wilburton and Natalie area. An 8 mile trail called Roaring Creek Trail runs through the middle of the tract and serves as a multi-use trail. Electric motors and non-motorized boats are permitted on two of the three reservoirs on the Roaring Creek tract - the 184-acre McWilliams’ Reservoir and the 31-acre Kline’s Reservoir. A short hike is required to access the Kline’s reservoir. The portage to McWilliams’ Reservoir is approximately 2 miles from the Route 42 parking lot.

The Haldeman Tract is located in northeastern Dauphin County. This tract, which contains 5,355 acres, is located on the Broad Mountain south of Elizabethville Borough in Jackson and Jefferson Townships. In 1897 the Pennsylvania legislature passed an act authorizing the purchase of unseated lands for forest reservations. This was the beginning of the State Forest system. In 1902, 3,353 acres was acquired, which established the first tract of State Forest in Dauphin County. The cost of this first parcel was $5,030. Other parcels totaling 2002 acres were acquired and added to this tract in 1917, 1953 and 1982. This tract was named for Pennsylvania Congressman Richard J. Haldeman. Representative Haldeman served in congress from 1871 to 1875. He was credited with introducing a bill to retain at least 10% of the state in timber. Although the Committee on Agriculture reported favorably on it; the bill failed to pass.

The Greenland Tract is located in northeastern Dauphin County. This tract is located on Barry Mountain south of Williamstown in Williams, Jackson, Jefferson and Rush Townships contains 2,977 acres. The majority of this tract was acquired from Lykens Borough in 1953 and 1963. Wildfires had much effect on the Greenland Tract and much effort was given from 1958 to 1960 to improve access into this area for the purpose of fire protection and reforestation. It was at this time most of the roads were built. The first major reforestation project was started in 1965 by root raking the area the fall before with a D7 Caterpillar dozer. Over 183,000 Japanese larch seedlings were planted that year. In 1966, 140,000 Japanese larch and 15,000 white pine seedlings were planted. Tree plantings continued up to 1970. The present Greenland Road through the tract is an old stagecoach line between Harrisburg-Carsonville-Tremont-Pottsville. A hotel was situated along the stage line at 9 O’Clock Run and farming of peanuts and peaches was found there at that time in history. Currently the district is conducting a landscape level project to the tract and surrounding property (SGL 210) in cooperation with Pennsylvania Game Commission.

The Port Clinton Tract located in Southern Schuylkill County and northern Berks County. This tract along with the Jefferson Tract, State Game Land 106 and 110, and Hawk Mountain Sanctuary are the dominant land holdings of the Blue Mountain between Port Clinton Borough and the village of Summit Station. This tract contains 1,449 acres. Public access is from Oaks Road entering the tract approximately one mile north of Port Clinton Borough along Route 61. This Tract along with the Jefferson Tract was purchased in 1955 from the estate of Harry R. Carl, owner of Lycoming Timber and Lumber Company, Inc., Pottsville, Pennsylvania. This was a large land holding company in the area during the early to mid-1900s. The Port Clinton Tract is considered a protected area for timber rattlesnakes and northern copperheads. The taking of timber rattlesnakes or northern copperheads is prohibited on this tract, including individuals holding a valid venomous permit. Another unique feature on the tract is the Pinnacle Hiking Trail, which connects to the Appalachian Trail.

The Penn Forest Tract contains 958 acres in Penn Forest Township, Carbon County. The original tract contained 170 acres, which was purchased in 1928. This parcel was an internal holding surrounded by the Bethlehem Water
Authority property and was traded to them for the present 958 acres just west of the property in 1948. Many recreation opportunities such as cross country skiing, hiking, hunting, horseback riding, and mountain biking exist on this special tract.

The Jakey Hollow Natural Area is located a few miles north of Bloomsburg in Columbia County. This 59 acre tract contains a mixed stand of old eastern white pine, hemlock, oak, and other hardwoods. A few giant eastern hemlocks and white pines can be found here and serve as reminders of what the forest in this part of Pennsylvania must have been like in the past.

The Wolf, Katzenmoyer, Schubert Tracts are located on the Schuylkill/Berks County line. Located in the same general area along the Kittinney Ridge (Blue Mountain) these tracts make up 435 acres. The Appalachian Trail runs through these tracts as well.

The Second Mountain Tract, located near Cressona (Central Schuylkill County), is 2,864 acres. Five motorized car camping sites exist on this tract which borders Schuylkill Haven Borough property to the south. This tract is accessed from Panther Valley Road.

The Jefferson Tract, located near Auburn (Southern Schuylkill County), is 2,034 acres. The district is working to improve access with a new parking area and a shared use trail system off of West Deer View Drive. The Appalachian Trail runs through this tract where the Eagle Nest Shelter is located as well, which our new trail system would connect with.

The Taylorsville Tract, located near Taylorsville (Northern Schuylkill County), is 2,505 acres. The first timber sale on the Weiser was held here in 1980. Future plans involve intensive grouse habitat creation across this property. This tract is accessed from Helfenstein Road, Lincoln Road, and Taylorsville Road.

The Weiser has oversight of river islands within the district where the DCNR holds title along the North, West and Main stems of the Susquehanna River. These islands are part of the Susquehanna River Trail System. Within this collection of islands, is a 70-acre Natural Area called the Sheets Island Archipelago. Approximately 500 islands exist in the Weiser river island collection and make up 1,017 acres collaboratively. Many of these islands support resident and migratory species of waterfowl and songbirds. State Forest Rules and Regulations apply on these lands. Pennsylvania Fish and Boat Regulations apply for fishing and boating.

**History**

The Weiser State Forest was named in honor of Conrad Weiser, a great leader of the colonial period. Conrad Weiser was born on November 2, 1696, in Germany. In 1709 his family immigrated to the British colonies in America, settling in the Mohawk Valley near Albany, New York. At the age of 17, Conrad moved in with his Mohawk neighbors to learn the language of the Iroquois to serve as an interpreter between the colonists and their Native American neighbors. For 15 years, Conrad Weiser was closely associated with the Mohawks. His hard work and personality helped him gain the respect and trust of the Mohawks. In 1729, Conrad Weiser moved his family from New York to Tulpehocken, Pennsylvania.

In 1731, Weiser's public life began. His close association and knowledge of the Iroquois customs and language was key to maintaining and developing Indian policy during the period. He befriended by Shekilammy, Chief of the Oneidas, who lived on the Susquehanna River near Sunbury. The Iroquois Confederation (Six Nations) sent Shekilammy to Philadelphia as a representative. Shekilammy selected Weiser to accompany and assist him with negotiations with provincial officials.

Conrad Weiser and Chief Shekilammy became a good team. For nearly two decades Weiser and Shekilammy traveled the valleys between the Susquehanna and Delaware Rivers serving as delegates during negotiations with the Six Nations. Following Major General Braddock's defeat at Fort Necessity in 1755 during the French and Indian War, Weiser persisted more than any other man of his time to hold the chain of friendship between white settlers and Indians from falling apart.
Conrad Weiser died on July 13, 1760, and was buried in the family lot near Womelsdorf in Berks County. On November 14, 1793, President George Washington, while standing at the grave of this great leader declared, "posterity cannot forget his services". It is apparent that Conrad Weiser was one of the great men of early America and was prominent in the development of our great State.

The Weiser Forest District includes Dauphin, Carbon, Columbia, Lebanon, Montour, Northumberland, and Schuylkill Counties.

This region was prized in the mid 1700’s for its wealth of timber: white pine and hemlock; chestnut, oaks, beech, maple, poplar, and gum; yellow and pitch pine. Many sawmills were erected along the larger creeks and rivers, and timber was transported to markets downstream in large rafts. Lumber formed the base, and shingles and lath products were carried on top. By 1831 there were 100 sawmills in Schuylkill County alone. During the 1800’s iron smelting became a major industry in the region, and the forests were further cut over to produce charcoal to fuel the furnaces. The Schuylkill and Union Canals were dug during this time to transport charcoal to furnaces in southeastern Pennsylvania. At the same time coal was discovered, and by 1820 had become a viable industry in the region. Rail lines were constructed to transport coal products from the region. The forests of the region supplied the coal industry with mine props and railroad ties. Denuded hillsides were slow to re-vegetate, and serious soil erosion and stream siltation occurred. Uncontrolled and repeated wildfires swept across the region, consuming thousands of acres of forest land. In 1902 the Department of Forestry was established, primarily to control wildfires and replant deforested hillsides. Today the Weiser State Forest is again stocked with stands of saw timber and pulpwood-size trees, but fire scars are still evident throughout the district. The region is still recovering from the heavy use of its forests in the early years of our country. But with ongoing protection from wildfires, and science-based forest management guiding the Bureau of Forestry, fire damaged stands will gradually be replaced with young healthy stands of higher quality material.

Many charcoal hearths which fed the pig iron industry in the late 1800s and early 1900s exist on much of the Weiser State Forest system. Some tracts with these hearths include; Greenland Tract, Haldeman Tract, and Port Clinton Tract. Remnants of an old collier hut still exist on the Port Clinton Tract today.

In the 1930s CCC Camp S-123 was established for wildfire suppression in the area, and trail and road creation and maintenance on the Haldeman and Greenland Tracts.

On the Penn Forest Tract a Native American establishment existed many years ago. Native American artifacts have been found on the tract. If such artifacts are found they are property of the commonwealth.

Key Resources and Events

Hiking

Approximately 100 miles of shared-use trails are open to hiking, with additional trail mileage also open on adjoining public lands. Marked trails are presently available on the Haldeman and Greenland Tracts in northern Dauphin County. Additionally, thirteen miles of shared-use trails are open to the public on Lykens Borough municipal lands and eight miles on State Game Lands 210. There are also marked trails on the Roaring Creek Tract in southern Northumberland and Columbia Counties. The Miners Path Trails on the Roaring Creek tract were developed using old maps with delineated foot paths used by coal miners. Miners traveled across the Roaring Creek valley to work in the mines in the Wilburton and Natalie area. An eight-mile trail also runs through the valley along the creek and reservoirs, for those who wish a more leisurely hike or walk. Hikers can enjoy numerous marked trails throughout the Weiser State Forest.

State forest roads are also available for recreational use: about 20 miles of roads on the Dauphin County tracts and 30 miles on tracts in Schuylkill and Carbon Counties.

The Appalachian Trail traverses Pennsylvania for 229 miles; approximately 114 miles pass through the Weiser Forest District, four miles of which are located on State Forest land. The trail enters the northeast end of the District where Carbon County intersects with Monroe and Northampton Counties. From this point it continues along the Blue Mountain ridge top to the Lehigh Water Gap near Palmerton. Then, it follows along the boundary between Schuylkill and Berks Counties, to Swatara Gap in Lebanon County, where it crosses the historic Waterville Bridge. From there it swings north crossing three ridges until it reaches the top of Peters Mountain just east of the Dehart
Reservoir. It then follows the top of Peters Mountain until it leaves the district, crossing the Susquehanna River on the Clark’s Ferry Bridge. The Appalachian Trail is a National Recreational Trail administered by the National Park Service.

**Picnicking**

Picnic areas are presently available in three locations in the Weiser State Forest.

The Rowland and the Minnich’s Hit Picnic Areas are both located on the Haldeman Tract in northeastern Dauphin County.

The C.Q. McWilliams Picnic Area is located on the Roaring Creek Tract in southern Northumberland County. Access to the site requires a 4 mile walk or bike ride from the valley visitor parking areas that provide access to Roaring Creek Trail. The area includes a covered pavilion near the picturesque McWilliams Reservoir.

All sites include picnic tables, charcoal grills and potable water. Permanent comfort facilities are available at Rowland, Minnich’s Hit, and C. Q. McWilliams Picnic Areas.

**Camping**

Primitive backpack camping is permitted while hiking along state forest trails. Hikers may not stay more than one night at any campsite location unless they acquire a camping permit from the district office.

Eighteen designated roadside campsites are available on four Weiser State Forest Tracts. These are permanently located sites that contain a parking pad, picnic table and fire ring. Two of the sites are larger group sites to accommodate the needs of scouts, churches and similar organizations. Visitors are required to obtain a permit to camp at these locations. There is no charge for the permit.

More than 20 river island campsites are located along the 51 mile long Susquehanna River Trail between Sunbury and Harrisburg. The sites are located on DCNR islands and are available for overnight camping for individual and small groups floating the Susquehanna River. Groups of 10 or less may stay no more than two nights at any one campsite. Permits are not required. The Susquehanna River Trail Association (SRTA) provides oversight and maintenance of these sites.

**Hunting**

Deer, turkey, grouse, squirrels, and black bear are common game species that visitors may encounter on the State Forest. Hunting is permitted in accordance with Pennsylvania State Game Commission regulations. The district has many of its administrative roads open to persons with disabilities. These roads are designated for use by individuals holding a valid DCNR disabled mobility permit.

**Fishing**

Several of the larger streams and rivers in this district offer some of the best warm water fishing to be found anywhere. Cold-water fishing opportunities are available as well on three tracts of the Weiser State Forest. The West Branch of Rattling Creek originates on the Haldeman Tract in northern Dauphin County. This is a beautiful little stream designated as an exceptional value cold-water fishery. Another exceptional value cold-water fishery is Rattling Run in northern Berks County located at the southern edge of the Port Clinton Tract. On the Roaring Creek Tract in southern Northumberland and Columbia counties, fishing opportunities abound. South Branch Roaring Creek is a high quality cold-water fishery which runs for ten miles through this tract and includes three large reservoirs where warm water fishing is available. Ice fishing is becoming a popular winter activity on this tract. All fishing within the boundaries of the Weiser State Forest, Roaring Creek Tract is catch and release only.

**Hang Gliding**

A hang gliding launch area is available on the Haldeman tract in Dauphin County. The site is open to current members of US Hang Gliding Association displaying a current helmet sticker for the launch site issued by the Blue Ridge Hang Gliding Club. This area also serves as a vista overlooking the scenic Susquehanna Valley.

**Water Trails**
Water trails have been developed on the Susquehanna and Schuylkill rivers to provide opportunities along these scenic waterways for overnight canoe/kayak camping and boating day trips. For maps and information on water trails contact the Pennsylvania Fish and Boat Commission Water Trails site.

**Sightseeing**

For visitors who enjoy taking drives to enjoy the forest scenery, sights, and wildlife, the Weiser State Forest maintains approximately 27 miles of State Forest roads on the Haldeman, Greenland, 2nd Mountain, and Port Clinton tracts that are open to public driving.

**Horseback Riding**

Horses may be ridden on most State Forest roads and on many of the marked shared-use trails. Access is restricted on some trails unsuitable for horses. Horses are prohibited on the Weiser State Forest Roaring Creek Tract.

**Mountain Biking**

An eight-mile hiking/biking trail running the length of the valley on the Roaring Creek Tract is open to visitors interested in a relatively level ride. This trail offers a leisurely trip through the scenic valley along the creek and reservoirs.

Many roads and trails on the Weiser State Forest are open to mountain bikes. The Roaring Creek, Port Clinton, Haldeman and Greenland Tracts are very popular biking destinations. Twenty-eight miles of marked shared-use trails are available there as well as another 27 miles of State Forest Roads. The extreme variability of the topography in this region of the state offers a variety of challenges for all skill levels.

**Winter Activities**

Cross-country skiing and snowmobiling are favorite winter activities on the Weiser State Forest. Snowmobiling is allowed on Port Clinton, Haldeman and Greenland tracts while cross-country skiing is popular at Penn Forest and Roaring Creek Tracts. Twenty miles of joint-use roads and twenty miles of shared-use trails are open for snowmobiles on the Weiser. Properly registered/insured snowmobiles may be operated on the day following the official closing of rifle deer season. In addition, an eight mile connector trail has been established in cooperation with the Pennsylvania State Game Commission across State Game Lands 210. Cross-country skiing is permitted on joint-use roads as well as on twenty-five miles of shared use trails. Maps showing the roads, trails, and access areas are available from the district office.

Pennsylvania’s state forest system includes dozens of special wild and natural areas set aside to protect unique or unusual biologic, geologic, scenic and historical features or to showcase outstanding examples of the state’s major forest communities. Natural areas are “managed” by nature and direct human intervention is limited. They provide places for scenic observation, protect special plant and animal communities and conserve outstanding examples of natural beauty. Wild areas are generally extensive tracts managed to protect the forest’s wild character and to provide back country recreational opportunities.

**Ecological Interest**

Special ecological populations on the Weiser State Forest includes timber rattlesnake, minniebush (a laurel like species), and north eastern bulrush.

Penn Forest is a Wild Plant Sanctuary, due to the existence of rare sedges and a rare aster. This property has also been identified as an ideal golden winged warbler site by wildlife biologists.

**Purpose and Goals**

**Purpose**
The purpose of the Weiser State Forest is to provide a whole suite of uses and values, all while maintaining its wild character. State forests are managed for pure water, recreation, scenic beauty, plant and animal habitat, sustainable timber and mineral resources. State forest management is guided by the State Forest Resource Management Plan. The mission of the Bureau of Forestry is to ensure the long-term health, viability and productivity of the Commonwealth’s forests and to conserve native wild plants.

**District Interpretive Goals**

9. Encourage exploration and participation in low impact recreation within the Weiser Forest District.

10. Promote awareness and encourage sustainable use of resources by communicating, and modeling good stewardship and best management practices.

11. Foster partnerships with local communities, school groups, municipal governments, organizations, private industry, fire companies, volunteers, and forest user groups.

12. Develop engaging experiences that promote intellectual and emotional connections between the resource and visitors.

13. To foster an appreciation and understanding of the history of Pennsylvania’s forests and their role in our lives.

14. Promote the conservation of the natural environment and enhance the quality of life by sustaining vital natural resources.

15. Promote wildland fire awareness and foster a robust relationship with local stakeholders (i.e. Wardens, County Governments, and Volunteer Fire Companies).

16. Promote grants and incentive programs offered by DCNR and other natural resource based agencies.

**Objectives (outputs, outcomes and impacts)**

The objectives provide a measurable way in which the goals will be accomplished.

**Outputs:** What the Weiser State Forest will do for the visitor: “What we do.”

1. Develop at least one program or project annually with the Woodland Owner Associations in the District to promote forest stewardship. (Goal: 2,3,4,6)

2. Interpret and communicate to visitors our resource management efforts while maintaining the wild character of the state forest. (Goal: 2,4,6)

3. Continue to maintain the timber harvest demonstration area to provide examples of proper forest management. (Goal: 2,4,6)
4. Work cooperatively with the Friends of Weiser on the Haldeman and Greenland Tracts on recreational interpretive efforts. (Goal: 3,5)

5. Provide a variety of recreational and interpretive program offerings (Goal: 1,2,3,6)

6. Increase the visibility of the state forest by administering the Roaring Creek Drive Thru where the state forest is promoted. (Goal: 2,3,6)

7. Work cooperatively with local school districts and conservation districts to serve as outdoor educators. (Goal: 2,3,4,5,6)

8. Continue promoting a clean land ethic with “pack in, pack out” signage at all tracts. (Goal: 1,2,6)

9. Provide and maintain waysides at gates, trails, kiosks, roads, deer fences, prescribed burns, and timber sales. (Goal: 2,4,6)

10. Provide and maintain historic, cultural, and natural history waysides at the following locations: (Goal: 1,2,3,4,5,6)
   - CCC Camp S-123
   - Natalie Miner Trail System
   - Penn Forest Native American Village
   - Port Clinton Collier Hut site

11. Provide training and outreach on wildland fire education to all age groups.

**Outcomes:** The anticipated short-term action. “What the visitor will do.”

1. Volunteerism will increase by 1% in the Weiser Forest District. (Outputs: 4,7,8)

2. Litter will decrease by 10%. (Outputs: 2,10)

3. Timber harvesting complaints will decrease by 5%. (Outputs: 2,6,12)

4. The amount of state forest visitors will increase by 10%. (Outputs: 6,7,8,9,13)

5. Increase the diversity of state forest users by 5%. (Outputs: 5,6,7,8)

6. ATV violations and fines will decrease by 2% (Outputs: 2,6,10,12)

7. Partnerships with school groups will increase by 1% (Outputs: 2,7,8,)

8. User group participation will increase by 10%(Outputs: 5,6,7,8,9,10,12,13)

9. School group visitation will increase 3% (Outputs: 2,8,12)

**Impacts:** The long-term benefits to the state forest.
1. Staff time devoted to litter removal will decrease. (Outcomes: 2)

2. Staff time devoted to trail maintenance will decrease as volunteers adopt more trails. (Outcomes: 1,4,7,8)

3. Illegal ATV use and staff time devoted to patrolling will decrease. (Outcome: 6)

4. DCNR Bureau of Forestry will become more identifiable with the community. (Outcomes: 1,3,4,7)
Audiences and Market Considerations

- **Current Visitors**
  - Hikers
  - Fishermen
  - Hunters
  - Snowmobilers
  - Campers
  - Motorcycle riders
  - Recreational Automobile Drivers
  - School Groups
  - Universities
  - Resource Management Professionals
  - Boy & Girl Scouts of America
  - Historical Societies
  - Visitor Bureau
  - Civic Organizations
  - Hang gliders
  - Horseback riders
  - Fuelwood cutters

- **Current Web Visitors**
  - All of the above

- **Key Audiences**
  - Water Authorities
  - Forest Stewardship Council
  - Conservation Districts
  - NRCS
  - Penn State Extension
  - PSP
  - Sawmills/Logging Industry
  - Volunteers – Friends of Weiser
  - Forest Fire Wardens/VFDs
  - Historical societies
  - Boy & Girl Scouts of America
  - Church Camps
  - Appalachian Trail users
  - Private woodland owners
  - Woodland Owner Associations
  - FFA classes
  - Hawk Mountain staff/volunteers/youth
  - Susquehanna River Trail Association

- **Future Markets and Trends**
  - Manada Conservancy
  - Local Audubon Chapters
  - Historical Societies (County, local boroughs)
  - Additional school districts for outdoor education
  - State Parks (Locust Lake, Tuscarora, Swatara, Ibberson, Boyd’s Big Tree, Shikellamy, Lehigh Gorge, Beltzville, Hickory Run, Milton)
Central Theme:  The Weiser State Forest connects visitors to nature by providing a variety of recreation opportunities in a serene outdoor setting while balancing the responsibility of sound ecosystem management of its natural resources.

Subthemes:

1. Weiser State Forest will continue to provide a quality experience to the visiting public for generations to come through the sound management of its forest resources and active stewardship.
   • Weiser State Forest has a rich heritage of conservation efforts beginning with the Civilian Conservation Corps and continuing to present day.
   • Weiser State Forest showcases the wise utilization of forest resources with an ever growing demand for forest recreation and conservation.
   • Weiser State Forest contains valuable timber products that are harvested and maintained in a sustainable manner.
   • Weiser State Forest has a long history of wildfire occurrence, prevention and suppression.
   • Weiser State Forest is committed to the management and eradication of invasive plant and insect species that threaten wild character and biological diversity of the forest district.

2. Weiser State Forest has popular recreation venues that can only be properly managed with the cooperation of its visitors.
   • Weiser State Forest embraces the Leave No Trace principles of outdoor recreation and encourages all visitors to leave the forest in better condition than when first visited.
   • Weiser State Forest is conveniently located near several major metropolitan areas, allowing for an increased amount of day and weekend use.
Current Interpretation (personal and non-personal)

Create an inventory and overview of the programs, waysides, exhibits, brochures, maps, etc., currently offered by this state forest.

- **Public Use Map**
- **Tract Maps**
- **Forest Demonstration Area Pamphlet**
- **Interpretive Exhibits exist inside Resource Management Center**
  - Biodiversity
  - Forest Products
  - Conservation Heros
  - Recreation
  - Forest Pests
  - Overall BoF orientation
- **Kiosks**
  - Troutman Forest Demonstration Area – 1 kiosk
  - Haldeman – 2 snowmobile parking lots, and Minnich’s Hit Picnic Area (3 kiosks total)
  - Weiser District Office, Resource Management Center – 1 kiosk
  - Roaring Creek Tract- Route 54 & 42 parking lots, and near A-Frame (3 kiosks total)
  - Port Clinton Tract- 1 kiosk main parking lot
  - Jakesy Hollow Natural Area – 1 kiosk
  - 2nd Mountain Tract- 2 kiosks, 1 on Pine Hollow Rd. and the other on 2nd Mtn. Rd.(not in yet)
  - Taylorsville Tract – 2 kiosks, 1 near powerline and other on Heron Trail
  - Greenland – 1 kiosk in Rt. 209 parking lot
  - Penn Forest – 1 kiosk in North side parking lot
Issues and Challenges

Vandalism at sites can be lowered by: installing signs that are resistant to cutting and marking, removing carving and drawing of graffiti frequently, and posting state forest rules and regulation signs.

Illegal firewood cutting is prevalent on the Weiser.

Littering and dumping can be lessened with pack in pack out signs, removal of waste receptacles, providing waste bags for dogs.

Improper trail use can be corrected with signs showing the correct trail direction and retiring an older or off trail segments. New maps can be made to help visitors find their way along the trails.

Access can be created by constructing new trails and rehabilitating pre-existing one, and creating signage to direct uses to the locations.

Balancing recreational use on State Forest to minimize conflict between user groups while still maintaining normal District operations.

Invasive species control is difficult.

Staff restraints: The staff is limited and the work load has steadily increased, budget restraints as they related to overtime is a hindrance to maintaining staff to assist visitors and do programming, lack of staff to work weekends and evenings with volunteers is an issue

Lack of Dedicated Funding: There is a lack of or insufficient funding for new recreational projects and maintenance of existing infrastructure.

Opportunities

Develop additional kiosk and panels at strategic locations to educate and inform visitors.

Maintain and upgrade our current infrastructure.

Increase social media efforts.

Recommendations for Personal (P) and Non-personal (NP) Media

This section includes the specific descriptions for personal (staffing, programs) and non-personal (exhibits, publications, waysides, etc.) media as well as costs for each recommendation.

This is how you accomplish the objectives and prioritize your interpretive projects and funding.
This section is linked to the Project Request Sheet/Share Point Site. Your priorities become our priorities.

*Priority Number and Recommendation Number are needed when requesting an interpretive project from the Communication Section.*

<table>
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<th>Priority</th>
<th>Rec Number</th>
<th>Recommendations (in priority order)</th>
<th>Corresponding Objectives</th>
<th>Estimated Cost</th>
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<td>Leave No Trace (AT shelter, remote areas)</td>
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Evaluation Strategies

We will continue to evaluate with comment cards and personal interactions with visitors, phone contacts, etc. to assess our effectiveness and make changes as needed.

Implementation Plan

The Weiser State Forest has been proactive and has planned for the implementation of kiosk with education and information panels to assist visitors in understanding the Central Themes.

References

Weiser Public Use Map
Weiser Tract Maps

http://www.dcnr.state.pa.us/forestry/stateforests/weiser/index.htm