The Stone Valley Forest is located in central Pennsylvania, approximately 15 miles south of the city of State College, Pennsylvania. The forest is named for Standing Stone Creek, which flows into the Juniata River at Huntingdon, the county seat of Huntingdon County. The name Standing Stone was adopted for the creek when effort was made to provide materials for buildings, fences, fuel, furniture, and tools. The valley’s rather deep soil, which was excellent for growing productive crops. Poverty and bankruptcy increasingly from severe erosion. The topsoil was washed away completely in many places and farmlands in the headwaters of the valley begin to erode. The last half of the nineteenth century and early nineteenth century, new settlers profoundly affected the forest. They cleared part of the forest for farming and draining areas that were flooded regularly. In 1870 its heavy cutting of the nearby forests. In 1870 its softwoods were converted to farmland. Settlers erected spacious homes of stone, brick, or pine lumber. Potato, and also raised livestock. They erected charcoal hearths are scattered throughout the Stone Valley Forest. The Monroe iron furnace and similar facilities in Pennsylvania State forests. The federal government then established a United States Forest Service Experiment Station in the forest. In the early 1900s the forest was divided to The Pennsylvania State University for use as an outdoor laboratory. Since then, State Forest Service implemented the University’s forest management activities have focused on maintaining a working forest that also provides teaching, research, and demonstration opportunities.

In 1934 the U.S. Resettlement Administration established a land utilization unit in the northern adjoining townships of Jackson and West. Bar- re Township was formed in 1972 as part of the northern Cumberland County Barre Township experi- enced American Indian raids until 1781. As the local European settler population increased in the early nineteenth century, new settlers profoundly affected the forest. They cleared part of the forests for farming and draining areas that were flooded regularly. In 1870 its heavy cutting of the nearby forests. In 1870 its softwoods were converted to farmland. Settlers erected spacious homes of stone, brick, or pine lumber. Potato, and also raised livestock. They erected charcoal hearths are scattered throughout the Stone Valley Forest. The Monroe iron furnace and similar facilities in Pennsylvania State forests. The federal government then established a United States Forest Service Experiment Station in the forest. In the early 1900s the forest was divided to The Pennsylvania State University for use as an outdoor laboratory. Since then, State Forest Service implemented the University’s forest management activities have focused on maintaining a working forest that also provides teaching, research, and demonstration opportunities.

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To manage the forest for multiple benefits, including timber, wildlife, water, recreation, aesthetics, cultural resources, and unique natural resources. A long-term management schedule includes an array of silvicultural practices ranging from clearcutting to selective cutting. Additional activities include wildlife habitat improvement and the protection and enhancement of aesthetic and cultural resources, including historic buildings and structures. All activities are conducted in ways that protect soil and water resources, including wetlands, while also permitting a variety of recreational opportunities.

To serve as a model for other forest landowners by applying up-to-date, science-based, biologically sound, and financially feasible natural resource management practices. School of Forest Resources faculty, staff, and students regularly conduct research on forestlands and publish articles describing research results and forest practices in popular and scientific journals. The school also uses the forest and its facilities to host professional and public meetings.

The current management plan for the Stone Valley Forest is designed to meet the educational goals of Penn State’s School of Forest Resources by building a variety of forest communities. Previous plans focused on helping the land recover from the devastating land clearing and uncontrolled cutting of the previous 160 years. To develop the current plan, forest managers and researchers collected data on 50 factors in each of the forest’s 1,500 management units. These data range from information about herbaceous cover and overstory trees to historical features. Several potential management regimes were developed for each management unit. Planners then used a computer program to sort through the possible management regimes and develop a 50-year plan to optimally manage the forest while meeting several goals. These goals include:

• To provide opportunities for exemplary natural

The Stone Valley Environment

The Stone Valley Forest is located in Pennsylvania’s Ridge and Valley Physiographic Province, which is characterized by sharply folded, sandstone ridges and lower-lying shale hills. The soils—of shale, quartzite and sandstone origin—are a mix of well-drained, medium-textured to somewhat poorly and poorly drained soils. Waterways in the forest are part of the Susquehanna River Basin. Shaver Creek, which varies in width from a few feet to 60 feet, is the largest waterway in the forest. It has a small population of native brook trout and is also stocked with trout from hatcheries. There are also dozens of smaller runs and intermittent streams throughout the forest. The largest wetland area in the forest is Muthersbaugh Swamp, which encompasses 40 acres. The forest is dotted with other wetland and forested wetland areas as well as vernal pools. The forest includes a tremendous variety of cover and habitat types, plant and animal species, and soils.

Topography and Climate

The Stone Valley Forest lies between Tussey Mountain to the north and Stone Mountain to the south. Its elevation ranges from 763 feet on Shaver Creek to 1,637 feet on Leading Ridge. The forest has a humid continental climate, with rather severe winters and warm summers. Temperature can range from 19°F in winter to 82°F in summer. Approximately 42 inches of rainfall is rather evenly distributed throughout the year.

Continuous monitoring of atmospheric deposition impacts on water quality, hydrologic response, nutrient cycling, and water yields from forested and managed watersheds has occurred on the Leading Ridge Watershed Research Unit since 1958 and on the Shale Hill Watershed Research Unit since 1961.

Forest Management (Our Objectives and Goals)

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• To provide opportunities for exemplary natural
resources management research, education, and demonstration consistent with the mission of the School of Forest Resources. The use of the forest for research, education, and demonstration is strongly encouraged. Forest personnel cooperate with University and non-University researchers to identify and protect suitable research sites. Special efforts are made to promote the use of the forest for undergraduate and graduate-level teaching, as well as for elementary and secondary education and continuing education.

Additionally, inventories will be conducted periodically to incorporate the most recent advancements in technology and research as well as provide education opportunities for forestry students. The data from these subsequent inventories will be used to update the 50-year management plan.

Public Use and Outdoor Recreation (rules and regulations)

In the Stone Valley Forest, it is unlawful to:

1. Contaminate, pollute, or degrade surface or groundwater.
2. Graze or permit the grazing of domestic livestock.
3. Place private advertisements, signs, or posters.
4. Plant, gather, cut, dig, remove, or otherwise injure any plants, including trees, shrubs, vines, foraging plants, and cultivated crops. Berry picking is permitted.
5. Travel on roads with any unlicensed vehicle or conveyance that is not licensed or authorized for operation on a public highway.
6. Operate a motor vehicle, except between January 15 and April 1.
7. Violate or neglect to follow instructions posted at locations authorized by the University.
8. Destroy, mutilate, or remove any signs or placards.
9. Organize or participate in any trail ride or group ride for hire or profit.
10. Drive a motor vehicle with or without attachments having a gross weight in excess of 1,000 pounds, except by permit.
11. Block the gates. Gates are for emergency use as well as for normal access to the operation of the forest.
12. Drive in any stream, pond, lake, or oxbow.
13. Injure, destroy, or cause damage to any property.
14. Use open fires during periods when the fire index rating used by the Bureau of Forestry is “high,” “very high,” or “extreme.” For current index ratings, call the local Bureau of Forestry office at 814-643-2340 or visit them on the Web at www.dcnr.state.pa.us/forestry.
15. Be off-road, off-trail, or on roads that are not authorized.

Hunting and camping

1. Hunting as permitted in accordance with current Pennsylvania game laws in all areas, unless otherwise posted.
2. Picking of small game in accordance with current Pennsylvania fish laws, unless otherwise posted.
3. Target shooting with firearms or bow and arrows at other than protected and approved targets and other than in conformity with Pennsylvania game laws is prohibited.
4. Driftwood camping is permitted with a free permit. To obtain a permit, contact the Forest Management Office, The Pennsylvania State University, 205 Forest Resources Laboratory, University Park, PA 16802, or call 814-865-6272.
5. Free permitting is permitted only with permits that are for sale at the Forest Management Office.

The Stone Valley Recreation Area has additional regulations.
Educational Opportunities and Activities

The Stone Valley Forest provides sites for many formal and informal educational activities for undergraduate and graduate student projects, class trips, and excursions. The forest averages more than 1,000 recorded student hours of instruction annually. In addition to programs related to academic units, the forest also conducts. The forest also provides opportunities for researchers from other parts of Pennsylvania, other universities and colleges, federal and state agencies, and private organizations. It has been the site of both short- and long-term research studies for more than the past fifty years. General areas of research include forest management, silviculture, forest ecology, forest utilization, herbicides, forest genetics, wildlife management, forest hydrology, watershed management, gypsy moth control, forest pathogens, and harvesting. Some recent research projects have focused on the effects of climate change, forest carbon sequestration, and application methods to control unwanted vegetation, the regeneration of northeastern tree species under variable precipitation regimes, analysis of the yields and costs of producing biomass (wood chips) from various harvesting regimes and the environmental impacts, the role of small rodents in the spread and transmission of Lyme disease, and intensive watershed-soil-vegetation interactions.

Center for Dirt and Gravel Road Studies

The Forest Management Office has partnered with the Penn State Center for Dirt and Gravel Road Studies to develop educational programs on the importance of road networks. The center's efforts are to develop and deliver evidenced-based training, educate conservation districts, provide technical assistance on various topics, and advise the State Conservation Commission on program priorities. Projects are located on Red Rose Road and Shaver Creek Road. For more information, visit them on the Web at www. dirtandgravelroad.org.

Forestry Student Internship Program

The Forestland Management Office employs undergraduate and graduate student hours of instruction for undergraduate and graduate student projects, class trips, and excursions. The Stone Valley Forest provides sites for many formal and informal educational activities for students learning how to lay out a grid, use surveyors’ equipment, conduct preliminary analysis of artifacts. By excavating the remains of nineteenth and early twentieth-century farmsteads in the Stone Valley Forest, students learn how archaeologists study landscapes and gain an appreciation for the history of the area. For more information, visit their Web at www. outreach.pennsylvania.edu/Archaeology.

Reserve Officers Training Corps

Penn State Reserve Officers Training Corps (ROTC) uses the Stone Valley Forest to develop officer candidates into well-trained, effective leaders. The challenge of moving through the forest and mastering critical combat skills and control of squad- and platoon-sized elements while moving through the forest and maintaining good communication provides road improvement demonstration areas. The center's efforts are to develop and deliver evidenced-based training, educate conservation districts, provide technical assistance on various topics, and advise the State Conservation Commission on program priorities. Projects are located on Red Rose Road and Shaver Creek Road. For more information, visit them on the Web at www. dirtandgravelroad.org.

Conservation Leadership School

Since 1948 the Conservation Leadership School (CLS) has used the forest to teach young people about natural resources and leadership during two one-week residential programs. CLS has various funding sources. For more information, visit them on the Web at www.conervationleadershipschool.com/CLS default.htm.

Archaeological Field School

Department of Anthropology staff teach archaeological field techniques to undergraduate students from Penn State and other universities. Students learn how to lay out a grid, use surveyors’ equipment, conduct preliminary analysis of artifacts. By excavating the remains of nineteenth and early twentieth-century farmsteads in the Stone Valley Forest, students learn how archaeologists study landscapes and gain an appreciation for the history of the area. For more information, visit their Web at www. outreach.pennsylvania.edu/Archaeology.

Forest Research

The Stone Valley Forest and the large database associated with it support the continually evolving research program in the School of Forest Resources, which is widely acknowledged as one of the nation’s best. The forest also provides opportunities for researchers from other parts of Pennsylvania, other universities and colleges, federal and state agencies, and private organizations. It has been the site of both short- and long-term research studies for more than the past fifty years. General areas of research include forest management, silviculture, forest ecology, forest utilization, herbicides, forest genetics, wildlife management, forest hydrology, watershed management, gypsy moth control, forest pathogens, and harvesting. Some recent research projects have focused on the effects of climate change, forest carbon sequestration, and application methods to control unwanted vegetation, the regeneration of northeastern tree species under variable precipitation regimes, analysis of the yields and costs of producing biomass (wood chips) from various harvesting regimes and the environmental impacts, the role of small rodents in the spread and transmission of Lyme disease, and intensive watershed-soil-vegetation interactions.

Plant Species Diversity

Researchers have identified 63 species of coniferous trees (14 softwood and 49 hardwood) and 97 different shrub, small tree, and vine species in the Stone Valley Forest. Oak, hickory, and Virginia pine are dominant on the steep slopes that face south and west. Hemlock appears on slopes that face north and east, often with oak and white pine. Typical northern hardwoods such as sugar maple, mountain ash, birch, beech, yellow poplar, red maple, white ash, and black walnut are found in open areas and edges, which tend to be sandy or gravelly. Natural conifer stands, composed of Virginia pines and table mountains pines with white pines and white spruce, occur on cold bays. In addition, approximately 1,000 acres of abandoned fields were planted with red pine, white pines, Virginia pines, Scotch pines, Norway spruce, and Japanese larch in the 1930s and 1940s by various federal government agencies and programs. Over the past 160 years, people have greatly influenced the forest, clearing for farming and lumbering reduced the amount of highly productive land and high-quality tree species. Addi-