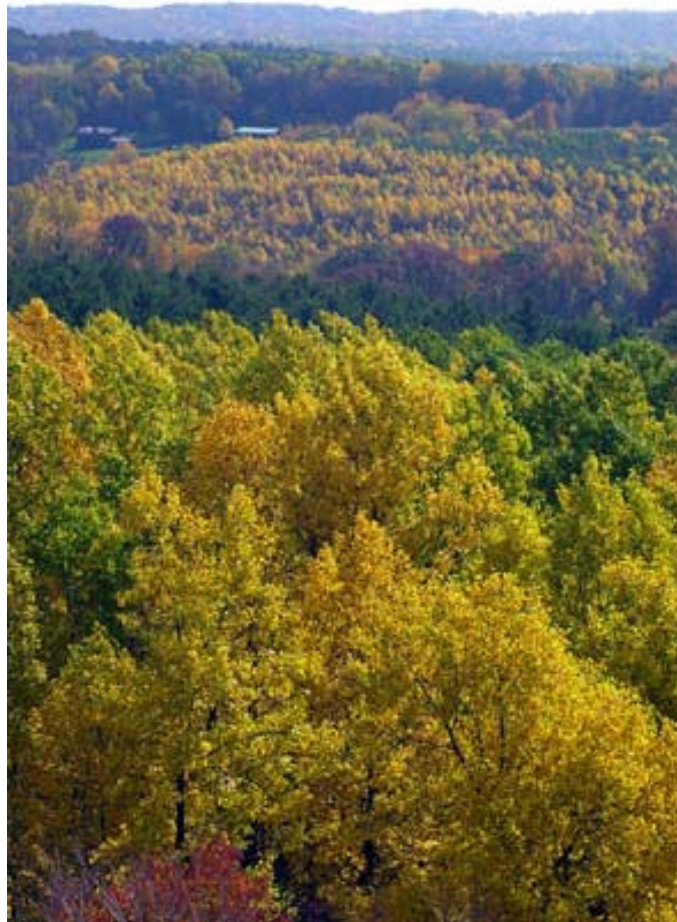


Mohican-Memorial State Forest  
Five-Year Management Plan  
Addressing Recommendations of the  
Mohican-Memorial Ad Hoc Advisory  
Council



Ohio Department of Natural Resources  
Division of Forestry

Preface  
Mohican-Memorial State Forest  
- A Brief Photo Essay

**The history of the Mohican-Memorial State Forest** - a long tale, one of vision, commitment, perseverance, and accomplishment. It officially started in 1928 but took root long before. The previous century witnessed unprecedented loss and abuse of Ohio's forests. A state that had been virtually all forest in pre-settlement times was reduced to 20 percent forest cover by the late 1800s. Ohio's dwindling forests begged for help. And the state responded. Today, Ohioans enjoy the fruits of the vision of previous generations, and the commitment to long term and wise management. Mohican-Memorial State Forest stands as a legacy to those early years of forest conservation and management. Lands once eroded and abused are now covered in forests as towering testament to people working with nature.



**Figure 2** During the 1930s Civilian Conservation Corps crews, such as the one pictured here, worked throughout Ohio to remedy serious erosion problems. This crew works on field erosion barriers at Mohican Forest in preparation for tree planting.



**Figure 1** The Daughters of the American Revolution (DAR) Plantation in winter at Mohican-Memorial Forest. This picture depicts some of the original plantings for the forest started in the late 1940s.

**Mission Statements**  
**Ohio Department of  
Natural Resources**

*To ensure a balance  
between wise use and  
protection of our  
natural resources for  
the benefit of all.*

**Division of Forestry**

*Our mission is to  
promote and apply  
management for the  
sustainable use and  
protection of Ohio's  
private and public  
forest lands.*



**Figure 3** Current winter day drive through a pine plantation at Mohican-Memorial State Forest.

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## **Forward**

This plan is largely an outgrowth of the efforts and work of the Mohican-Memorial State Forest Ad Hoc Advisory Council. The Council was formed by the Chief of the Division of Forestry to make recommendations on the current and future management of the forest. The Council was composed of the following individuals (interest represented): Charles Scott (Forest Advisory Council), Bill Loffer (Forestry Worker), Annette McCormick (Interested Citizen), Ed Schamber (Trail User), Steve McKee (Environmental Educator), Steve Meeks (Hunter/Angler), Wendell Swartzentruber (Ashland SWCD), Mary Lou Butterworth (Ohio Federation of Women's Clubs), Ron Endslow (Local Elected Official), and Diane Kaye (Neighboring Landowner). The Council developed recommendations for the management of the Forest, some of which are very specific while others are more general and philosophic in nature. This document outlines the Division of Forestry's plan for implementation of those recommendations and other work for the next five years.

Past management of the Forest was guided by the creation of zones for which general management objectives were outlined. As the Council recommended a new zoning scheme for the Forest, new management guidelines were developed accordingly and are included in this plan as Appendix A.

Fulfillment of the Council's recommendations and the plan tasks depends to a large degree upon the resources currently available and provided in the future. The Forest is staffed with a manager, forester, and two equipment operators, which are supplemented with maintenance staff from the district office (located in New Philadelphia) to assist on major projects. Equipment available to the Forest is limited and aging and operating dollars for the Forest are generally declining. Capital budgets to fund construction or major renovations of facilities are always competitive with local projects competing with all projects within the Department of Natural Resources and ultimately with all State of Ohio capital budget requests. The Division routinely reviews its operation for increased efficiencies and seeks alternate funding sources, including donations and grants to supplement state resources.

**Constraints and Considerations** - In addition to budget constraints, other issues influence what can be accomplished and how management of the Forest can proceed. Some of the considerations and a brief discussion of each follow. It is not anticipated that any of these constraints or considerations will change in the near future.

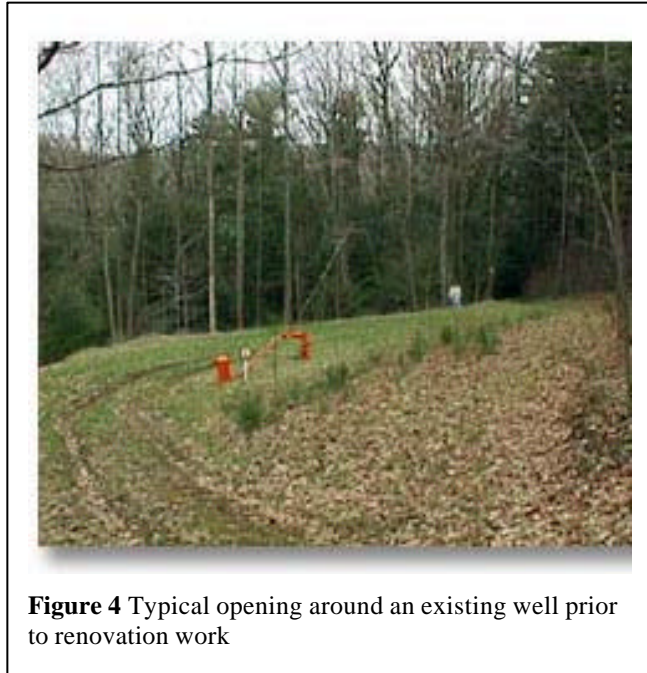
**Gas Well Leases** – A majority of the Forest’s mineral rights are leased for natural gas storage while some of the Forest has the mineral rights, or some portion thereof, reserved by a previous owner. Most of the gas well leases predate ownership of the land by the State of Ohio. The rights granted via these leases must be respected in the management of the Forest. Requests for new leases will be considered on a case-by-case basis.

**Rights-of-Way** (utilities, roads, etc.) – The Forest is crossed by a number of public utilities and roadways. The utilities crossing land under management by the Division of Forestry are deemed for the public good. While these tend to complicate management, these rights-of-way are governed by easements that must be respected in the management of the Forest. Requests for new rights-of-way will be considered on a case-by-case basis.

**Deed Restrictions** – some of the properties acquired by the State of Ohio come with deed restrictions. One example is deeded access across a piece of public ownership to a property owned by another. These deed restrictions must be respected in the management of the Forest.

**Cooperation with Other Public Entities** – The State Forest property is owned by the State of Ohio and under the management of the Division of Forestry. Other government entities manage property near and adjacent to that managed by the Division of Forestry (e.g. the Division of Parks and Recreation and the Department of Youth Services). As all this property is owned by the State of Ohio, from time to time, meeting other public needs may be required of any of these properties. These needs will be respected after due consideration of the decision making authority. Examples of efforts that may affect management of the Forest during the five-year period covered by this plan are the expansion of the Mohican Juvenile Correctional Facility, implementation of certain aspects of the final Mohican – Malabar Concept Plan and the location of a radio tower as part of Ohio’s Multi Agency Radio Communication System.

**Land Acquisition Priorities** – The Division of Forestry has authority to purchase properties within approved purchase unit boundaries. Lands are purchased as funding comes available. However, funding is allocated on a biennial basis and is limited. Therefore, available parcels are prioritized so that the lands that present the greatest opportunity to meet division management objectives are acquired first. This constraint limits land acquisition at any particular Division of Forestry facility and at Mohican-Memorial State Forest in the coming years.



**Figure 4** Typical opening around an existing well prior to renovation work

## Forest Description

Mohican-Memorial State Forest is located in north central Ohio in Hanover Township of southern Ashland County. It is on the western edge of the Appalachian Plateau. The rolling hills and steep slopes escaped the last glacier, which flattened the land north of the Forest. The State of Ohio began acquiring land for the Mohican State Forest Park, as it was known then, in 1928. In 1945 the Memorial State Forest was added. In 1949, the Mohican State Park (originally Clear Fork State Park) was created out of the State Forest Park in the river gorge area, and the Clear Fork Gorge State Nature Preserve was created from state forest and state park lands in 1987. Mohican-Memorial State Forest comprises 4,525 acres, Mohican State Park has 1,294 acres, and Clear Fork Gorge State Nature Preserve is 28 acres. The Ohio Department of Natural Resources manages these lands under separate divisions.

Mohican-Memorial State Forest is at the heart of “Mohican Country”, the third most popular tourist destination in the state. Loudonville, Perrysville, Butler, and other small communities rely on the tourist industry. The area is famous for its private canoe liveries and campgrounds. Mohican Country is approximately a one and one half hour drive from Columbus, Cleveland and Youngstown. State forest facilities include the Memorial Shrine, fire tower, and horse staging area, trail system, and back country campsites. The adjacent state park has a resort and conference center, cabins, campgrounds, trails, covered bridge and picnic areas. Recreation use on these state facilities is heavy. The Department of Youth Services operates a medium security boy’s correctional facility on state forest property. Columbia Gas leases fifty-four underground natural gas storage wells and maintains several miles of transmission lines.

Mohican-Memorial State Forest is managed by the ODNR Division of Forestry on a multiple-use basis. Recreation, forest protection (insect, disease, regeneration and fire), wildlife management, law enforcement, soil and watershed management, and forest management for timber and non-timber are practiced.

The Clear Fork River and Pine Run are major streams that have cut through the sandstone-based soils to create scenic valleys. The Clear Fork River is a major tributary of the Mohican River, which is a part of the Muskingum River watershed. The Clear Fork flow was reversed by the last glacial event, resulting in an hourglass shaped canyon. This unique gorge was designated a National Natural Landmark in 1967.

The Forest soils are derived from unglaciated sandstone and shale and are silt loam to sandy loam in texture. Lordstown-Berks soils predominate. These soils were



**Figure 5** Mohican State Forest surrounds Mohican State Park and provides its scenic backdrop.

commonly farmed or pastured prior to state acquisition. They are well-drained soils and easily leach nutrients when exposed, thereby highly erosive and not supporting of crops. Many of these mineral-depleted, open field areas were planted with pine trees for quick reforestation to control erosion. Approximately 1,300 acres of conifer plantations were planted between 1928 and 1970. Solid stands of white pine predominate, with various other species of conifers.

Mohican-Memorial State Forest has one of the few pockets of native white pine remaining in Ohio. These trees are large overstory trees scattered in hardwood forested slopes in the Clear Fork gorge. Dry ridge tops support a variety of hardwood species, including stands of chestnut oak, black oak, white oak, cherry, hickory, maple and mixed species. Sassafras, butternut, and magnolia can be found. American chestnut, once the king of the hardwood forest, now remains as an occasional stump sprout due to the chestnut blight. Slopes and bottomlands are rockier, and support beech-maple and mixed hardwood forest types, as well as aspen, sassafras, and maple on poor soils.

Most of the forest has a closed canopy overstory and is comprised of multi-storied, mixed-aged trees. The deciduous forest is classified as approximately 3% large saw timber, 39% medium saw timber, 18% small sawtimber, 5% large poles, 3% saplings, and less than 1% seedling. The balance of the forest is in conifer plantations.

About 3,200 acres are native hardwood species, and the remaining 1,300 acres are planted pine. Dogwood is commonly found in the understory. Several species of ferns are present, as well as orchids, trillium, skunk cabbage, and other herbaceous plants. A variety of invasive plant species are found on the former farm sites, including multiflora rose and raspberry. Ginseng, bittersweet, and morel mushrooms are popular plants harvested in season.

Wildlife thrives on Mohican-Memorial State Forest. Deer and turkey have been successfully re-introduced. Grouse and pheasant are occasionally seen. Fox, coyote, raccoon, skunk, rabbit, red and gray squirrel, amphibians, black snakes, owl, heron, and bald eagle are among the many species reported. Hunting is permitted in season. The Forest is well known by bird watchers as an important destination for many neotropical migrants as well as a year-around home for many species.



**Figure 6** Mohican-Memorial State Forest offers abundant hunting opportunities in addition to other recreational activities.

## A Brief History

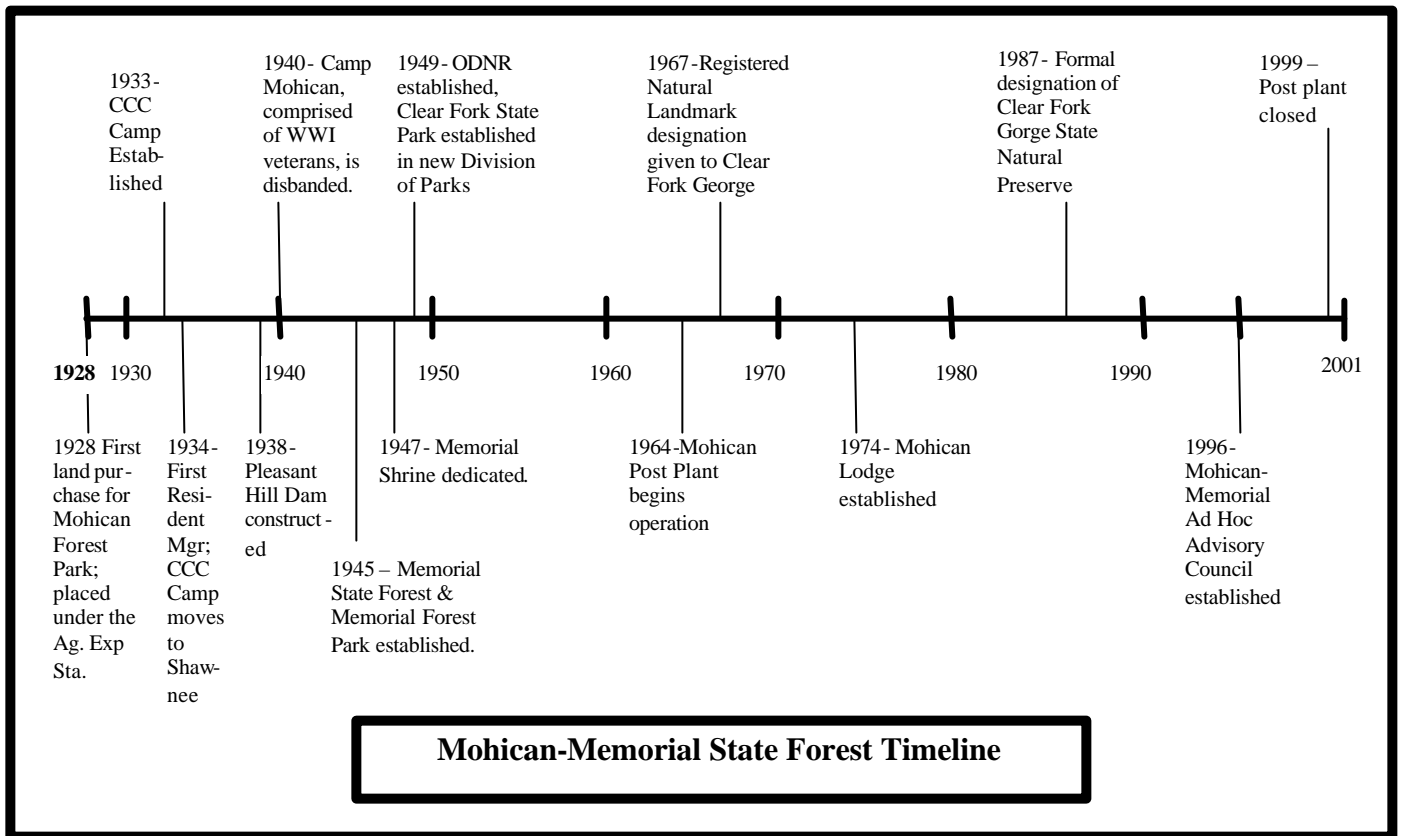
The Mohican-Memorial State Forest began as Mohican State Forest Park in 1928 with 850 acres in and surrounding the Clear Fork Mohican River Gorge.

With "Protection-Use-Renewal" as its early slogan, the Ohio Division of Forestry at the Ohio Agricultural Experiment Station at Wooster oversaw Ohio's nine early state forests and 12 state forest parks from the 1920's to the 1940's. Mohican Forest Park was typical of these lands, with its scenic gorge, broad streams, native white pine, and vibrant woodlands. Mohican land was set aside for developed access and preservation. The surrounding farmed-out crop and pasture lands with sandy and rocky soils were reforested with pines and hardwood.<sup>1</sup>

The land and its natural features were surveyed for geologic, biologic, and historic features. Glacial forces had shaped the topography of the area, influenced the plant species, and changed the Clear Fork of the Mohican River. The Mohican and another river carved the gorge. The last glacier reversed the main stream's westward flow and combined it with an eastward flowing stream. Today the river flows east.

The resulting hour glass shape of the gorge is a unique geologic feature. The National Park Service designated the Clearfork Gorge as a Registered Natural Landmark in 1967.

Sandstone strata comprises the bedrock. Natural gas production depleted the stratigraphic traps. These are now used for underground storage fields for natural gas.



<sup>1</sup> Robert Paton, Ohio Forest News, Ohio Division of Forestry, 10, (July 1930).

Historically, numerous native American tribes and villages were located in the area until driven out by white settlers in the early 1800's. Some were the Mohegan Indians who had been displaced from New England. The river system took their name.<sup>2</sup> John Chapman, better known as Johnny Appleseed, lived in the area and carved his name in the sandstone at Lyons Falls.

Forestry practices, recreation, and research were important uses of the Mohican Forest Park from the beginning of state ownership. "Mohican Forest has been developed for public use and recreation, because of the many points of beauty and interest, but it is also being used for forest research, reforested with different species of both evergreens and deciduous trees, and methods of planting, spacing, insect control, and management are being carried out."<sup>3</sup>

During the Great Depression, the Civilian Conservation Corps (CCC) was part of President Franklin Roosevelt's New Deal. Camp Mohican was established during the summer of 1933. Up to 300 men were based at the facility constructed on the north side of the gorge. They built roads, fire breaks, bridges, trails, picnic shelters, and two fire towers, and planted over two million trees. The first camp, Company 1530 under the direction of Superintendent John C. Diggs and a U.S. Army Infantry Reserve staff headed by Capt. G.M. Gunderson, consisted of 211 corps men aged 18-25 plus camp staff. In the fall of 1934, Company 1530 moved to Shawnee State Forest. A second camp comprised of World War I veterans was organized later. Camp Mohican was disbanded in 1940.<sup>4</sup>

Edmund Secrest, Ohio's first State Forester, assigned Robert Paton to oversee the design and planting scheme for the new forest park in the late 1920's. The first resident "ranger", Jimmy Stevenson, from 1934 to 1944 resided in his own home on land in the heart of the forest park. Basic fire fighting tools, a shovel, and a wheel barrow were his only equipment. He initially had to drive through Loudonville to access the north side of Mohican because there was no bridge over the Clear Fork in the gorge.<sup>5</sup>

During the 1930's, Case Institute of Technology established a summer engineering camp. It later became a permanent facility with log structures. In 1963, Camp Case's buildings and grounds were leased by the Ohio



**Figure 7** The familiar fire tower located at the Forest is one of the fire fighting "tools" that remain from the past.

<sup>2</sup> Lee Cavin, *Tales of the Mohican Country*, (Loudonville, OH: Truax Printing, 1984), p. 1-4.

<sup>3</sup> Robert Paton, *Ohio Forest News*, Ohio Division of Forestry, 34, (July 1938) p. 9.

<sup>4</sup> *Camp Mohican Aviator*, Oct. 30, 1934; interviews with former CCC corpsmen.

<sup>5</sup> Interview with Robert Paton; interview with James Stevenson.

Department of Natural Resources to the Ohio Department of Youth Services, which operates the Mohican Juvenile Correctional Facility for 175 resident male juveniles. Until the mid 1970's, the youth provided labor for planting and pruning pine plantations, treating grapevine, producing posts, and maintaining trails.

The Army Corps of Engineers built Pleasant Hill Dam in 1938, one of 14 flood control projects in eastern Ohio. The Muskingum Watershed Conservancy District manages the 850 acre Pleasant Hill Lake and surrounding 1,345 acre conservation area.

After World War II, the Memorial State Forest was established on lands south of State Route 97. The Ohio Federation of Women's Clubs was instrumental in the state acquiring these lands for a living memorial to Ohio's service veterans. The Memorial Shrine and surrounding 270 acre Memorial Forest Shrine Park were dedicated in the spring of 1947 to honor Ohio's men and women who lost their lives in defense of their country during World War II and all subsequent conflicts. The building is constructed all of Ohio materials, and handicap access was added in 1991. The Memorial Shrine contains books with the names of these Ohioans recorded for their families, friends, and public to read.



The Ohio Department of Natural Resources was formed in 1949. As one of its first actions, the new department addressed the growing need for and promotion of outdoor recreation. The Division of Parks and Recreation was created, and many of the first state parks were derived all or in part from Division of Forestry lands. Clear Fork State Park was carved out of the Mohican State Forest Park in 1949. Renamed Mohican State Park in 1966, the 1,294 acre park features the Clear Fork Gorge, developed campgrounds, picnic areas, covered bridge (1969), cabins, lodge (1974), and grist mill. Natural features include Big Lyons Falls, Little Lyons Falls, and the Gorge Scenic Overlook. The State Park Office and service center are on State Route 97.

The Mohican Post Plant began operating in 1964 to market the thinnings from the pine plantations using practices and equipment the average farmer could obtain and in a manner that would not compete with industry. As many as 15 full time and seasonal employees felled and skidded trees, peeled bark, sectioned the logs, treated sections, and sold products. The post plant supplied private individuals and public agencies with fence posts, poles, guard rails, utility poles, and bark mulch. Production ceased in 1981. The facility was closed and remediated in 1999.

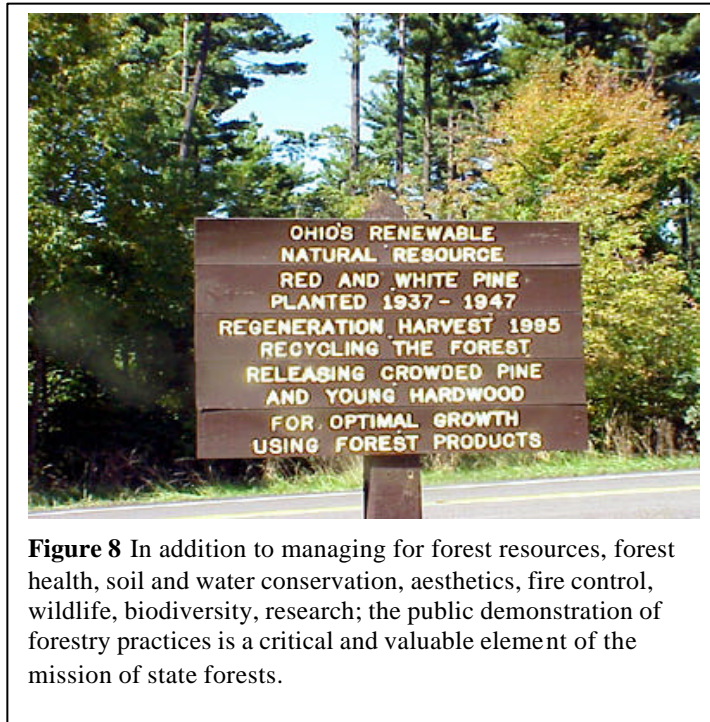
In 1987, the ODNR-Division of Natural Areas and Preserves formally established the 28-acre Clear Fork Gorge State Nature Preserve. The land contains a cluster of

majestic native white pine and hemlock trees previously excluded from forest and park management for their unique aesthetic and biological values.

The Mohican-Memorial State Forest is one of 20 State Forests administered by the ODNR-Division of Forestry. State forests are managed for many benefits, including forest resources, forest health, soil and water conservation, aesthetics, fire control, wildlife, biodiversity, research, and public demonstration of forestry practices. Mohican-Memorial contains 4,525 acres of forested land.

Approximately one quarter of this land base is comprised of planted pine plantations. The Forest headquarters is at the CCC Camp Mohican site in the original chestnut buildings. The Forest office also houses the northeast Ohio Service and Urban Forestry District Office. The Forest maintains the office complex, service garages, wood shop, Memorial Shrine, fire

tower, horse staging area, 24 miles of recreation trails, and ten back country campsites. Several service buildings were removed in the early 1990's. The Agricultural Experiment Station in Wooster, now the Ohio Agricultural Research and Development Center, still maintains growth studies as well as other forestry research. Numerous other scientists and researchers gather data on the state forest. The Mohican Forest Fire Protection Area covers parts of five counties with seventeen cooperating fire departments.



**Figure 8** In addition to managing for forest resources, forest health, soil and water conservation, aesthetics, fire control, wildlife, biodiversity, research; the public demonstration of forestry practices is a critical and valuable element of the mission of state forests.

## **Implementation of the Mohican-Memorial Forest Ad Hoc Advisory Council's Recommendations**

### **Introduction**

Many of the items recommended to the Division of Forestry were new procedures or changes in existing ones. The overriding recommendation of new zoning for the Forest is dealt with procedurally through zone management guidelines that exist as Appendix A to this plan. The Council recommendations for more specific action are below with a description of the Division of Forestry's goal for implementing that action.

For ease of reference, the Council's recommendations appear in this section as *italicized* text, while the Division of Forestry's action goal(s) to implement the recommendations appear in normal text.

### *Mohican-Memorial Forest Ad Hoc Advisory Council Vision Statement and Recommendations*

#### *Vision:*

*The forest will provide:*

*a large core of mature forest,  
native plant and animal diversity,  
low-impact recreation, and  
education about forest ecosystems and their management*

## Objective Statement (1): A Large Core of Mature Forest

The Council envisions that the Mohican-Memorial State Forest will provide "a large core of mature forest." "Mature forests" as defined here are forested areas that have a continuous canopy cover of mature trees (at least 75 years old). A "large core" is defined as an area with a minimal amount of fragmentation (forest/non-forest edge) and thereby allowing a large block of mature forest habitat for late-successional and interior-forest species of plants and animals.

### Action Items:

1. To accomplish our goal of providing for "a large core of mature forest", we recommend that the Mohican-Memorial State Forest be divided into three zones as shown on the attached map entitled "Zoning Option 6d". Zone A, which provides for "old growth" forest, is defined in action item #2 below. Zone B, which provides for "mature forest with single-tree selection management", is defined in action item #3 below. Zone C, which provides area for "education about forest ecosystems and their management", is defined in Objective Statement 4 below. The large core of mature forest has been accomplished through adoption of the recommended zones (Appendix C). Further, management guidelines have been adopted for these zones that are contained in this document as Appendix A.

Zone	Acres
A	2,161
B	1,704
C	768
Total	4,633

**Table 1** Zone Acres as designated by the Mohican Memorial State Forest Ad Hoc Advisory Council. (Note: the total acres listed in this table do not match the total acres of 4,525 published elsewhere in this document. The 4,525 acres are based upon deed transfer records as published in the ODNR Land Inventory while the 4,633 total acres in this table are based upon computer-digitized maps within a geographic information system.)

2. We recommend that the areas shown as "Zone A" on the attached "Option 6d" map would be allowed to mature to "old growth" with no further disturbance due to harvesting (except where cutting trees for public safety purposes would be necessary). "Old growth" as defined here means that the forest has not been harvested for at least 120 years. Old growth stands are characterized as having at least 14 trees/acre which are 17+ inches DBH, large dead trees (snags), and large dead and down material (coarse woody debris) (Shifley 1995). Any management of forest pests and/or exotic plants should be kept to a minimum in keeping with our intent of limiting disturbance to the old growth areas. Zone A management guidelines (see Appendix A) are targeted at accomplishing this action item. As gypsy moth becomes further established in the area, current gypsy moth practices will be continued with the aim of maintaining the integrity of the "old growth". Current practices are aimed at managing the population below a level that would cause major defoliations and widespread mortality. As

the science of gypsy moth management advances, new practices will be adopted if they are consistent with the intent of the zone.

3. *We recommend that the areas shown as "Zone B" on the attached "Option 6d" map would be harvested such that continuous cover would be maintained, such as using single-tree selection. This cutting method is designed to foster and accelerate old-growth characteristics of more than 14 trees/acre with are 17+ inches DBH, snags and coarse woody debris.*

The area designated as Zone B will be managed consistent with this action item per management guidelines in Appendix A. Limited harvesting will take place to maintain vigor and to demonstrate the concept of "managed old growth" per the vision statement "education about forest ecosystems and their management."

These harvests will be done non-commercially with the aim of minimal impact to forest resources and will utilize where possible, the services of Hocking College, low-impact logging equipment and/or horses. See Appendix G for the cruise schedule for the forest.

4. *We recommend that low-impact recreation (as defined below) be permitted in the "large core of mature forest."*

Existing recreational uses within areas designated to be part of the large core of mature forest will continue. These existing uses are: hiking, horseback riding, cross-country skiing, snowmobiling, hunting, bird watching, fishing, park and pack camping, gathering, and other passive activities. These uses will be monitored and evaluated to assure that they are sustainable per Objective Statement 3 (see action item 1).

5. *We recommend that the "mature forest" designation be given to areas outside of those defined in action items #2&3 if habitats for rare late-successional animals or plants are found in these areas. Further, management activities will be permitted within the "large core of mature forest", should rare animals or plants be shown to exist therein that would benefit from certain management activities. "Rare animals or plants" are defined as those that are listed by the Division of Wildlife and/or the Division of Natural Areas and Preserves as Endangered, Threatened, Potentially Threatened or of Special Concern. It is further recommended that Division of Forestry staff be given periodic training on the recognition and management of rare animals and plants, that the staff coordinate activities with other agencies and cooperate with the activities of other groups wherever possible.*

As these areas are identified through the established cruise cycle, they will be managed per action item 3 above. The Division of Forestry will continue its current standard procedure of using the Natural Heritage Database as maintained by the ODNR Division of Natural Areas and Preserves. The Division of Forestry shall continue cooperation with other agencies on the assessment of the forests that it manages (e.g. *The Breeding Birds of the Mohican-Memorial State Forest and Mohican State Park*, Steve McKee, 1997). The Division of Forestry staff has

received training on bat management and rare plants and will seek out more training opportunities as needed.

6. *We recommend that the Class II Zone (to minimize visual disturbance in travel influence areas) be extended to include the trail areas within all of the Mohican-Memorial State Forest, except where harvesting would be permitted in educational areas (i.e., Zone C) near trails.*

The policies of the state forest standard Class II Zone have been incorporated into the Zone A and B zone management guidelines for Mohican-Memorial State Forest. The intent of this Class II Zone is to create an “aesthetic corridor” and to “develop and maintain mature and overmature timber for visual, wildlife and other nontimber resource considerations.”

7. *We recognize that the large pine plantings in the Mohican-Memorial State Forest tend to complicate the creation and management of Zones A, B and C. Attachment A addresses our recommendations for the pine resource.*  
This action item is addressed in Attachment A to these recommendations.

## *Objective Statement (2): Native Plant And Animal Diversity*

*The Council envisions that the Mohican-Memorial State Forest will provide "native plant and animal diversity". "Native plants and animals", as defined here, are those species that would have been found in the Mohican area or central Ohio during pre-European settlement times. This definition excludes "exotic" or "alien" species that have invaded or been introduced to the Mohican since settlement from other continents or from other North American regions. Because the Mohican is primarily forest habitat, "diversity" is defined here as a variety of species found in the context of a mature forest ecosystem and the earlier successional forest habitats created by both natural disturbances and by harvesting.*

*A diversity of native plants and animals is important to the health and sustainability of the forest and streams, as well as to its educational and recreational values. Native plants and animals are well-adapted to the Mohican and are important to its function. Exotic species can often upset the balance of the ecosystem, and thus should be avoided. Diversity management should focus on those species that depend on large blocks of mature forest.*

### *Action Items:*

- 1. We recommend that the Division maintain a large core of mature forest (as defined in Objective Statement 1 - i.e. zones A & B) in order to provide habitat for those plant and animal species that depend on large trees (live, standing dead, and downed logs), shade, a large forest interior, and/or minimal disturbance. Native plant and animal diversity habitat is provided for as recommended by this action item in Zones A & B. Management in those zones will be provided for as noted in the action items for the large core of mature forest and Appendix A.*
- 2. Some of the game species that are hunted at the Mohican are more commonly found in earlier successional habitats. For native species that require early- and mid- successional forest habitats, the Council has recommended various educational harvesting treatments in Objective Statement 4. We recommend the use of a range of silvicultural treatments, including clearcutting, thinning, and single tree and group selection on this educational portion (Zone C) of the forest to ensure a range of habitats. Treatments should be conducted on a scheduled basis to ensure a balance of stand ages over time. This item is addressed under Objective Statement 4 and in the Zone C management guidelines contained in Appendix A.*
- 3. We recognize that the large pine plantings in the Mohican-Memorial State Forest tend to complicate the objective of providing for native plant and animal diversity. Attachment A, attached below, addresses our recommendations for the pine resource. This item is addressed in Appendix A to the Ad Hoc Council's recommendations.*

4. *We recommend control of wild grape (various native species) when its growth threatens public safety or management objectives.*

Grapevine will be noted as per this recommendation in the established cruise cycle and routine trail evaluations.

5. *We recommend that, when identified, habitats for rare native species with narrow habitat ranges should be maintained, if feasible. (see action item 5 of Objective Statement 1)*

Per this action item, habitats for rare native species will be maintained as they are identified through periodic assessments. These assessments will be coordinated with the ODNR's Divisions of Natural Areas And Preserves, and Wildlife.

### *Objective Statement (3): Low-Impact Recreation*

*The Council envisions that the Mohican-Memorial State Forest will provide “low-impact recreation”. “Low-impact recreation” is defined here as: outdoor human activities that a) cause a minimal amount of disturbance and/or damage to the soils and native flora and fauna of the Mohican-Memorial State Forest ecosystems; and b) cause a minimal amount of disturbance to other forest users. Recreational uses should be sustainable such that any degradation to the forest ecosystems can be repaired and maintained within the Division's annual resources.*

#### *Action Items:*

- 1. We recommend that the currently permitted forest recreation uses by the public be continued, and that uses be monitored for compliance with the "low-impact" recreation objective.*

Current recreational uses of the Forest will continue with their “sustainability” (as defined above) periodically assessed. Current uses are hiking, horseback riding, snowmobiling, hunting, cross-country skiing, and park-and-pack camping. Facilities will have their use and condition assessed on an annual basis. Should it be determined that a facility and/or use is not currently compliant with the low-impact recreation objective, strategies will be developed in partnership with user groups to ensure compliance.

- 2. We recommend that guidelines for "best management practices" (BMPs) be developed for trail building and maintenance as well as regulations on their use. Appropriate standards and practices from sources such as the US Forest Service, National Park Service and the International Mountain Bicycling Association will be incorporated into the Division of Forestry's Land Management Manual. Existing regulations govern the use of recreational facilities at the Forest, including the authority to “...temporarily close to the public any state forest or any facility, target range, trail, or area within any state forest where it is determined to be hazardous for public use or detrimental to the resource or facility due to weather, water, fire, construction, or other situation involving public health, safety, or welfare.” This authority may be employed to temporarily close facilities while maintenance is being performed or options for permanent closure or relocation are contemplated.*
- 3. We recommend that special concern should be applied to the current problem areas on the horse trails with consideration given to drainage procedures, moving trail sections or closing trail sections as appropriate. All trails continue to be managed according to Action Item 2, above. Problem horse trail segments have been and continue to be routinely relocated.*
- 4. We recommend that "mountain biking" be considered as one of the acceptable forms of recreation in the Mohican with the following limitation: mountain bikes*

*would be excluded from some portion of the equestrian trails so that horseback riders would have the choice of whether or not they encounter bicycles on the trail. If this arrangement restricts equestrian trail mileage too much, perhaps more trails could be created for mountain bikes only or for mixed use.*

The Division of Forestry will open a section of existing trail (see Appendix E) as soon as practicable in fiscal year 01 on a pilot basis. The Division of Forestry will meet with hikers, bridle trail users, and potential mountain bike users (trail users conference) after an appropriate evaluation period of this pilot effort to discuss trail options and strategies. If needed, a funding request will be developed for the capital budget to fund a consultant to recommend/design/construct a trail based upon the outcome of the trail users conference. These efforts will be undertaken in cooperation with the planning section of the Division of Real Estate And Land Management and the Division of Parks and Recreation.

5. *We recommend that the Division of Forestry consult with all user groups, especially the horse and mountain bike interests to discover specific trail needs of each groups, to map out separate and mixed use trails and to keep communication open among groups.*

Mohican Memorial State Forest will host an annual open house to allow for comment on a coming year's work plan (beginning in FY03). This action item will be incorporated into this annual meeting. Special invitations will be sent to the identified user groups. Additionally, there will be a trail users conference to gain the input of user groups after an evaluation period of the pilot mountain bike trail as noted in item 4.

6. *We recommend that the Division of Forestry explore the possibility of using volunteers for some aspects of trail development and maintenance where cost savings could be realized.*

The Division of Forestry will continue to use volunteers whenever and wherever possible respecting applicable collective bargaining agreements and rulings.

7. *We recommend that the Division of Forestry post the hunting season dates at the trail heads and/or trail staging areas.*

Hunting season dates/information sheets are posted at designated trail heads (bridle trail staging area on S.R. 97 and the snowmobile staging area at the fire tower).

8. *We recommend to the Division of Forestry, trail users and user groups that a spirit of cooperation be promoted for the health of the Mohican resource and so that user conflicts can be worked out to the benefit of all and the exclusion of none.*

The annual open house and other venues, such as the trail users conference, will be used to foster this outcome. While the Division of Forestry can "set the tone" for such a condition, it is ultimately up to the user groups to assist the Division of Forestry in resolving user conflicts.

## *Objective Statement (4): Education about forest ecosystems and their management.*

*The Council envisions that the Mohican-Memorial State Forest will provide "education about forest ecosystems and their management." "Education" involves providing and interpreting information in various formats to forest owners, managers, and to the general public. This information will focus on "forest ecosystems" --flora and fauna and their relationships with other forest ecosystem components, and on "management" --the methods used to achieve the desired future conditions of the forest.*

*Because the Mohican-Memorial State Forest is easily accessed from major metropolitan areas, it has a unique opportunity to further public awareness about forest ecosystems and their management. Various active and passive educational methods are envisioned, such as guided tours and talks, and signs and brochures. A full range of forest management practices should be demonstrated, ranging from no active management (e.g., Zone A) to clearcutting. Other educational topics should include management for wildlife, poor management practices which are commonly used (via audio-visual means only), and past Mohican-Memorial State Forest practices and history.*

### *Action Items:*

- 1. We recommend that much of the active management to be demonstrated would be conducted in Zone C--the area designated for educational purposes. We recommend that Zone C areas should consist of about 560 acres and should be located: on the periphery of the forest holdings to minimize fragmentation of Zone A; where they are accessible by roads for the public; and where they can take advantage of existing practices. We recognize that existing roads through Zone A or B parcels may need to be used to access Zone C parcels. Zone C has been delineated as per the Council's recommendation (see Appendix C).*
- 2. We recommend that demonstration areas be located so that they are easily accessed. Areas in Zones A and B could be included to represent the no active management and single tree selection practices, respectively. Zone C has been delineated as per the Council's recommendation (see Appendix C).*
- 3. We recommend that the following seven silvicultural practices be demonstrated in Zone C as described in Item 4 below: group selection, patch cutting, crop-tree release, two-aged, shelterwood, White Pine management and clearcutting. See Attachment B below for recommendations on harvesting specifications. This action item has been incorporated into the Zone C management guidelines (see Appendix A). Additionally, the Division of Forestry will seek researchers to perform and coordinate studies of practices implemented. These areas will also be made available to college level natural resource programs for class projects.*

These class projects could perform area assessment, formulate management plans and perform or coordinate the plan's implementation with oversight from the Division of Forestry. These areas can also be used for demonstration of new technologies that are consistent with the low-impact recommendation identified in Attachment B to these recommendations.

4. *We recommend that demonstration areas of roughly 80 acres be designated for each of the seven standard silvicultural practices listed in Item 3 above. Each area would then be further divided into treatment areas or stands which would be treated on a rotating basis. For example, if the clearcutting area is managed on a 80-year rotation, it might be divided into eight stands which would then be cut in successive 10-year periods. This way, each area has stands in various stages of development, thus providing visitors opportunity to evaluate each management practice over time—in a single visit.*

During the first year of this plan's implementation, the Division of Forestry will evaluate areas designated as Zone C to designate which practices will best fit in the landscape given all existing possibilities and limitations.

5. *As noted in Items 6 and 7 of Objective 1, we recommend that the Class II Zone restriction on activities near travel influence areas be relaxed to enable the demonstration areas to be readily seen from roads and trails.*

This action item has been incorporated into Zone C management guidelines (see Appendix A).

6. *As noted in Item 2 of Objective 2, we recommend that the demonstration areas listed in Item 3 above be managed to enhance habitat for early- and mid-successional species. This may or may not require additional measures beyond the use of the standard silvicultural practices. Thinning and timber stand improvement (pre-commercial thinning and grapevine control) may be used as an intermediate treatment, as appropriate.*

This action item has been incorporated into Zone C management guidelines (see Appendix A). Early succession for the purposes of this plan means the stand initiation stage (years 0 to 10) "where early vegetation is characterized by various naturally occurring herb, shrub, and tree species that undergo rapid fluctuations in numbers and dominance."<sup>6</sup>

7. *With regards to the educational treatments in Zone C, as research and experience demonstrate that a particular treatment is, or is no longer useful, expedient or recommended, we recommend that the treatment should be added or eliminated from the list in Item 3 above.*

This is currently standard operating procedure and will continue per this action item.

8. *We recommend that each demonstration area and treated stand within them be interpreted through the use of signs, brochures, and other means (depending on*

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<sup>6</sup> Riparian management in Forests, Verry et.al, pg. 89

*the availability of resources). Tours and talks could also be developed to highlight the differences between practices and the pros and cons of each management practice as it could be applied on private lands.*

Signs and brochures will be incorporated into the demonstration areas as they are developed. Basic scripts or talking points will be developed for tours. The use of these areas will be closely linked to the development of a staffed interpretive center (see action item 9 that follows). The demonstration areas are very important components of the educational process. It has been documented that people understand more about forest management when they can do site-visits to experience on-the-ground applications.<sup>7</sup>

9. *We recommend the development of a staffed interpretive center to provide visitors with information on a variety of subjects relating to forests, including natural forest ecosystems, forest management, recycling and conservation (source reduction and wood alternatives). The Council encourages the Division to collaborate with other Divisions and other organizations in this effort.* Funding will be requested as a part of the capital and operating budgeting processes to construct and staff an interpretive center. Should funding be provided, this center would be the focal point of the demonstration forest. It is through this center and the Zone C demonstration area that the forest will truly “provide education about forest ecosystems and their management.” The Division of Forestry envisions a center with interactive displays about the management of forest ecosystems. It will become a regional and statewide resource in the education of school children, forest landowners and others interested in the many facets of forests. It will accommodate the opportunity for both formal and informal educational opportunities. To this end, linkages with local schools will be created for teacher education workshops and a student field trip destination. The facility will attract forestry field experiences for the Ohio State University forestry program and other college level natural resource programs. The facility will accommodate the week long Ohio Forestry Association’s Forestry Camp for high school students. Soil and Water Conservation Districts will use the facility for landowner and staff education. OSU Extension will use the facility for informal adult education opportunities. The center can also provide programming for visitors to the adjacent Mohican State Park.
  
10. *We recommend that adequate records and photo documentation of forest treatments, including time-sequenced photo documentation, be maintained for historical, interpretive and economic purposes. As much as possible, we recommend that past records and photos be reconstructed for the same purposes.* All forest management activities will be photographically documented and associated with the management records. These records will be used in the development of the visitor’s center.

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<sup>7</sup> Harmon et.al., Encouraging Private Forest Stewardship Through Demonstration, Journal of Forestry, Volume 95, Number 6 (page 21-25)

## *Attachment A - Action item for the Mohican Forest Pine Plantations*

*The council recognizes that the Mohican-Memorial State Forest pine plantations are:*

- 1. an essential part of the Mohican’s conservation history,*
- 2. an appealing part of the Mohican experience for visitors, and*
- 3. a valuable habitat component for the Mohican’s wildlife.*

*Therefore, the council recommends that the Division try to maintain 20-25% of the Mohican in pine.*

*We recognize that most conifer species that have been planted at the Mohican, and especially the large Red Pine plantings, are not native to central Ohio. In the pine plantings, we anticipate the non-native conifers to eventually die out and some of the native White Pine to thrive. Our goal is to promote the White Pine.*

*In keeping with the general objectives of Zone A, we recommend that the Zone A pine plantings not be artificially maintained, and that as any pine die off, they be replaced by natural succession. An exception to this would be the removal of declining Red Pine from Zone A when the stands are located near a road. We recommend that no new haul roads be built through hardwood stands or outside of the Red Pine stand to remove the declining Red Pine.*

*In keeping with the general objectives of Zone B, we recommend that the Zone B pine plantings be managed to enhance the old-growth characteristics of the pine plantings. Especially in the White Pine plantings, we recommend thinning, or whatever management would promote pine growth in the plantations. In the Red Pine plantings, we recommend that trees be selectively removed just prior to mortality.*

*In keeping with the general objectives of Zone C, we recommend that the Zone C pine plantings be managed as needed to meet our education objectives. Some White Pine plantings may serve as demonstration areas for management treatments. Some plantings in Zone C may need to be removed to make room for other demonstration treatments.*

The pine will be managed consistent with this recommendation to contribute to the goals of each zone. As indicated by Table 2, the 20-25% of the Forest in pine will be maintained primarily through that located in Zones A&B.

Zone	Acres of Pine in Zone
A	489.43
B	478.76
C	224.89

**Table 2:** Amount of pine by zone and percentage of Forest area.

## *Attachment B - Harvesting Specifications*

*Harvesting in Zone B is to mimic old-growth conditions, thus logging must minimize disturbance, road building, soil compaction, and logging residue.*

*Harvesting in Zone C is to follow standard harvesting methods and Best Management Practices (which focus primarily on road building). Because these sites are to demonstrate standard practices, products must be removed from the site in both Zones.*

*Recognizing that the Forest staff does not have the personnel and equipment to conduct these harvests, nor the funds to pay loggers to conduct the harvests without keeping the products for themselves, the Forest may contract with certified loggers to conduct these harvests on a commercial basis. The loggers will continue to operate under the tight supervision of Forest personnel to ensure that the harvests are confined to the selected trees and sites, minimizing environmental damage.*

*The Council has discussed recent advances in Scandinavian logging technology where logging harvesters and loaders on tracks have a minimal impact on soils and herbaceous vegetation. As this technology becomes available in Ohio, we recommend that it be considered for logging operations in Zones B and C.*

Per the Director's news release (Appendix B), the products will not be sold commercially. Harvests will be conducted as an educational effort with Hocking College or contracted to a Master Logger. These options will be administratively complex, budget dependent and worked out through time. Use of low-impact equipment or horses will be used on harvests when possible.



**Figure 9** The Division of Forestry will continue to encourage the use of the recommended harvesting technology (known as cut-to-length) on State Forests as well as private lands. The pictured machine conducted a harvest at Maumee State Forest in early 2001.

### *Attachment C - Future Council Meetings*

*To ensure that this Vision Document is carried out as planned and to address unanticipated issues, the Council recommends that the Council continue to meet at least yearly, and more often as needed.*

This draft document will be provided to the Council for final review. Annual meetings will be scheduled with the Council to review available information, work plans and implementation progress. The Chief of the Division of Forestry will fill vacancies that occur on the Council via an appointment. New Council members will fulfill/represent the role of the original position as much as practicable.

## Schedule of Activities

Many activities are required in the administration of a state forest, some of which occur on a daily and ongoing basis; others occur once annually or more infrequently. Many of the activities documented directly relate to Council recommendations; other activities occur as part of operational and programmatic imperatives. Tables 3 - 10 document-- by program area, plan year and management objectives-- activities that are planned as recommended for the Forest by the Council. The program areas are: Maintenance, Law Enforcement, Fire Management, Vegetation Management, Recreation Management, Information and Education, Administration, and Employee Development. The management objectives (MO) are: a large core of mature forest, native plant and animal diversity, low-impact recreation, and education about forest ecosystems and their management. These tables represent the goals for what activities will occur and the best estimates of when they will occur. The activities listed are those foreseen as most likely.

**Table 3 Maintenance Activities** – those activities that are necessary to assure the proper condition or function of an item, area or facility. Usually, these activities are funded through the operating budget.

Activity	MO	Fiscal Year				
		02	03	04	05	06
Maintenance - renovate fire tower	5		?			
Maintenance - grapevine control (conduct)	2	Yes	Yes	Yes	Yes	Yes
Maintenance -upgrade carsonite markers	3	Yes	Yes	Yes	Yes	Yes
Maintenance - maintain existing facilities--trails, fire tower, Memorial Shrine, wells	3	Yes	Yes	Yes	Yes	Yes
Maintenance - develop new mountain bike trail	3			?		
Maintenance - maintain new facilities--bike trail, parking,	3				?	?
Maintenance - boundary maintenance		Yes	Yes	Yes	Yes	Yes
Maintenance -buildings		Yes	Yes	Yes	Yes	Yes
Maintenance - grounds		Yes	Yes	Yes	Yes	Yes
Maintenance - recreation/day-use facilities		Yes	Yes	Yes	Yes	Yes
Maintenance -place trail head signage on hunting seasons	3	Yes				
Maintenance - equipment		Yes	Yes	Yes	Yes	Yes
Maintenance - operate sign shop		Yes	Yes	Yes	Yes	Yes

“Yes” in the Fiscal Year column indicates that the activity will take place in that year.  
 ? = Occurrences of activity are uncertain at this time.

Number	Management Objective (MO)
1	Large core of mature forest
2	Native plant and animal diversity
3	Low-impact recreation
4	Education about forest ecosystems and their management
5	Special Issues

**Table 4 Law Enforcement Activities** – those activities necessary to enforce the law, and protect the public safety and natural resources.

Activity	MO	Fiscal Year				
		02	03	04	05	06
Law Enforcement - patrol		Yes	Yes	Yes	Yes	Yes
Law Enforcement - investigation		Yes	Yes	Yes	Yes	Yes
Law Enforcement - Court visitation		Yes	Yes	Yes	Yes	Yes

**Table 5 Fire Management Activities** – those activities necessary to carry out the mandates of the Ohio Revised Code with respect to wildland fire.

Activity	MO	Fiscal Year				
		02	03	04	05	06
Fire-suppression		Yes	Yes	Yes	Yes	Yes
Fire- prevention		Yes	Yes	Yes	Yes	Yes
Fire - VFD contacts and administration		Yes	Yes	Yes	Yes	Yes

Number	Management Objective (MO)
1	Large core of mature forest
2	Native plant and animal diversity
3	Low-impact recreation
4	Education about forest ecosystems and their management
5	Special Issues

“Yes” in the Fiscal Year column indicates that the activity will take place in that year.  
 ? = Occurrences of activity are uncertain at this time.

**Table 6 Vegetation Management Activities** – those activities necessary to carry out management objectives as determined by the management plan for the area or other controlling authorities.

Activity	MO	Fiscal Year				
		Y1	Y2	Y3	Y4	Y5
Identify grape arbor control needs as part of normal cruise cycle (20 years)	2	Yes	Yes	Yes	Yes	Yes
Identify silvicultural practices to reduce gypsy moth susceptibility	2	Yes	Yes	Yes	Yes	Yes
Define research needs	1	Yes	Yes			
Seek researchers/coordinate studies	1	Yes	Yes	Yes	Yes	Yes
Minerals - exploration/development as required		?	?	?	?	?
Monitor gypsy moth populations	2	Yes	Yes	Yes	Yes	Yes
Forest health monitoring and management		Yes	Yes	Yes	Yes	Yes
Identify demonstration objectives for Zone C	4	Yes	Yes			
Identify stands to be used in Zone C from acres identified by MMAHC that best meet demonstration objectives	4		Yes	Yes		
Identify pine stands to be managed as part of Zone C [Append. A]	4		Yes	Yes		
Identify those pine stands in Zone B that are to be fostered to an "old-growth" condition [Append. A]	1	Yes				
Identify data needs	1	Yes				
Survey plant and animal life, identify RTE (e.g. NHDB)	2	Yes	Yes	Yes	Yes	Yes
Identify early and mid-successional species to be fostered	1	Yes	Yes			
Cruise zones A, B and C	4	Yes	Yes	Yes	Yes	Yes
Class project - assessment of Zone C	4	?				
Class project - formulate management plan	4		?			
Class project - project(s) implementation	4			?	?	?
Class project - post implementation assessment of project areas	4				?	?
Silvicultural plan--80 acre blocks zone C	4			Yes		
Silvicultural plan--promote, mark, harvest, educate	4				Yes	Yes
Implement management activities to meet demonstration objectives	4			Yes	Yes	Yes

Number	Management Objective (MO)
1	Large core of mature forest
2	Native plant and animal diversity
3	Low-impact recreation
4	Education about forest ecosystems and their management
5	Special Issues

“Yes” in the Fiscal Year column indicates that the activity will take place in that year.  
 ? = Occurrences of activity are uncertain at this time.

**Table 7 Recreation Management Activities** – those activities necessary to ensure a positive and safe recreational experience for visitors as well as ensuring the protection of the resource.

Activity	MO	Fiscal Year				
		02	03	04	05	06
Develop mountain bike trail for pilot use.	3	Yes				
Survey use and determine thresholds, monitor use for compliance with low-impact recreation objectives.	3	Yes	Yes	Yes	Yes	Yes
Develop and implement trail BMPs	3	Yes	Yes	Yes	Yes	Yes
Trail maintenance plan (partnership dependent)	3	Yes				
Evaluate mountain bike pilot - consider future options	3		Yes			

**Table 8 Information and Education Activities** – those activities necessary to fulfill educational requirements of the management plan or those to ensure the proper use of a facility.

Activity	MO	Fiscal Year				
		02	03	04	05	06
Signs to identify mountain bike area	4	Yes				
Mountain bike brochures/map	3	Yes				
Constituency building	1	Yes	Yes	Yes	Yes	Yes
Interpretive program development/definition--topics, audiences	4	Yes	Yes			
Plan interpretative program based on diverse ecosystem, silvicultural practices. Access, trails, driving tour, signs, brochures.	4		Yes	Yes	Yes	Yes
Implement interpretative program	4			Yes		
Plan interpretative/visitors center--site, needs	4		?	?	?	?
Records of silvicultural practices over life of stands	4			Yes	Yes	Yes
Forest/trails map update	1					
Hold Mohican trail user conference	3		Yes			
Develop signage method for trailheads on hunting seasons.	3	Yes				
Identify educational strategies and methods for Zone C	4			Yes		
Search archives for historical photos for forest ecosystem interpretation	1	Yes	Yes	Yes		
Take photos of all cultural activities for forest ecosystem interpretation	4	Yes	Yes	Yes	Yes	Yes
Hold annual open house	3		Yes	Yes	Yes	Yes
Hold annual meeting with Mohican-Memorial State Forest Ad Hoc Advisory Council	5	Yes	Yes	Yes	Yes	Yes

“Yes” in the Fiscal Year column indicates that the activity will take place in that year.  
 ? = Occurrences of activity are uncertain at this time.

Number	Management Objective (MO)
1	Large core of mature forest
2	Native plant and animal diversity
3	Low-impact recreation
4	Education about forest ecosystems and their management
5	Special Issues

**Table 9 Administration Activities** – those activities necessary to assure organizational functions are carried out and policies and procedures are followed.

Activity	MO	Fiscal Year				
		02	03	04	05	06
Volunteer agreements	3	Yes	Yes	Yes	Yes	Yes
Determine existing and future facility needs	3	Yes		Yes		Yes
Consider a trail closure proposal for wet, winter months	3			Yes		
Equipment upgrading and replacement--dump, tractor, hoe, dozer, saws	3		Yes		Yes	
Staffing--NRW, FOII	3			?		
Ensure adequate funding to meet objectives and correct damage	3		?		?	
Reimbursement/compensation for private business use impact	3	?	?	?	?	?
Minerals - gas storage lease		Yes	Yes	Yes	Yes	Yes
Land Acquisition		?	?	?	?	?
Mohican-Malabar Concept Plan Coordination	5	Yes	Yes	Yes	Yes	Yes
Annual work plan development	5	Yes	Yes	Yes	Yes	Yes
Special Use Permits (consideration/administration)	1	Yes	Yes	Yes	Yes	Yes
Make zoning adjustments to add trail buffers in all zones (except C)	2	Yes				
Adjust zoning map to eliminate trail buffers in Zone C	1	Yes				
Acquire funding and resources for trail construction as necessary	3	?		?		?
Other agency coordination (Park, MWCD, Youth Services, etc)		Yes	Yes	Yes	Yes	Yes
Shrine use & administration/coordination		Yes	Yes	Yes	Yes	Yes
Emergency assistance/response (search and rescue)		Yes	Yes	Yes	Yes	Yes
Sign shop, business and support activities		Yes	Yes	Yes	Yes	Yes
Adjust zone of residual acres according to recommendations	1			Yes		
Prepare capital budget and operating budget request for a staffed interpretive center.	1	Yes	Yes			
Health and safety management		Yes	Yes	Yes	Yes	Yes
Volunteer - project coordination/supervision (JVS, Sea Cadets)		Yes	Yes	Yes	Yes	Yes
Administration - seek alternative funding sources (grants/agreements with industry and/or other agencies)		Yes	Yes	Yes	Yes	Yes
Administration - finalize/formalize arrangements for the participation of Hocking College and/or The Ohio State University		Yes	Yes	Yes	Yes	Yes

“Yes” in the Fiscal Year column indicates that the activity will take place in that year.  
 ? = Occurrences of activity are uncertain at this time.

Number	Management Objective (MO)
1	Large core of mature forest
2	Native plant and animal diversity
3	Low-impact recreation
4	Education about forest ecosystems and their management
5	Special Issues

**Table 10 Employee Development Activities**– those activities necessary to assure a properly trained and prepared staff to carry out their job duties.

Activity	MO	Fiscal Year				
		Y1	Y2	Y3	Y4	Y5
Training on identification and site/habitat requirements of RTE	1	Yes	Yes	Yes	Yes	Yes
Law enforcement -in-service training		Yes	Yes	Yes	Yes	Yes
Administration - technology training		Yes	Yes	Yes	Yes	Yes
Professional and staff meetings		Yes	Yes	Yes	Yes	Yes

Number	Management Objective (MO)
1	Large core of mature forest
2	Native plant and animal diversity
3	Low -impact recreation
4	Education about forest ecosystems and their management
5	Special Issues

“Yes” in the Fiscal Year column indicates that the activity will take place in that year.  
 ? = Occurrences of activity are uncertain at this time.

## Appendix A

### Mohican-Memorial State Forest Zone Guidelines

#### PREFACE

Three Forest zones are established as a result of recommendations presented by the Mohican-Memorial State Ad Hoc Council (MMAHC) and adopted by ODNR. Each zone, as identified in Appendix C of this plan, has a stated purpose; in brief Zone A is “old growth”, Zone B is *large core of mature forest* and Zone C is *education about forest ecosystems*. To accomplish the purpose of each zone, management guidelines have been formed combining current State Forest zoning policies and the MMAHC recommendations. These management actions will occur without use of “commercial harvesting” of timber within Mohican-Memorial State Forest.

The Council recommended as general goals that the forest provide:

- a large core of mature forest,
- native plant and animal diversity,
- low-impact recreation, and
- education about forest ecosystems and their management.

### ZONE A

#### PURPOSE

The purpose of this zone is to encourage the development of “old growth” by avoiding purposeful, human-caused disturbance. "Old growth" as defined for purposes of this plan is a forest that has not been harvested for at least 120 years. Old growth stands are characterized as having at least 14 trees/acre, which are each 17 inches and above DBH, large dead trees (snags) and large dead and down material (coarse woody debris). (Shifley 1995)

This zone contributes to the MMAHC's general goals of:

- a large core of mature forest,
- native plant and animal diversity,
- low-impact recreation, and
- education about forest ecosystems and their management

#### MANAGEMENT GUIDELINES

##### Forest Ecosystem Interpretation and Management

This zone will meet the educational need of forest ecosystem interpretation and management by providing an undisturbed forested area that will demonstrate natural processes.

##### Recreation and Trails

Low-impact recreation is permitted in this zone. “Low-impact recreation” for this plan is defined as: outdoor human activities that a) cause a minimal amount of disturbance and/or damage to the soils and native flora and fauna of the Mohican-Memorial State Forest ecosystems; and b) cause a minimal amount of disturbance to

other forest users. Recreational uses should be sustainable such that any degradation to the forest ecosystems can be repaired and maintained within the Division's annual resources.

Allowable recreational uses in this zone include: hiking, horseback riding, cross-country skiing, snowmobiling, hunting, bird watching, fishing, mountain biking, park and pack camping, gathering, and other passive activities. Other activities compatible with the purposes of this zone may be accommodated through special use permit.

Practices and techniques employed to maintain trails include relocating trail sections or closing trail sections as appropriate. Trail management practices will include all techniques listed in the "Bridle Trail Maintenance" policy and applicable Best Management Practices (BMPs).

Mountain biking is an additional acceptable form of recreation in this zone of Mohican-Memorial State Forest with the following limitation: mountain bikes will be excluded from some portion of the equestrian trails, providing horseback riders with the option of using single or dual purpose trails. Additional trails may be created for mountain bikes only or for mixed use.

Trails may be established for educational and interpretive purposes consistent with the intent of the zone.

All rules and policies of the standard State Forest Zone II shall apply to the area within 100 feet of either side of trails.

#### Visual Resources

Management of the visual resource within this zone will emphasize retention of big trees. All management activities will be minimized to achieve the purpose of this zone.

All rules and policies of the standard State Forest Zone II shall apply to the roadsides within this zone.

#### Wildlife Habitat

Wildlife habitat manipulation will not be performed in Zone A unless specifically designed to maintain or promote rare, threatened, and endangered species associated with the purposes of this zone. Non-native wildlife will not be introduced.

#### Transportation, Facilities, and Utilities

New roads, utilities, and facilities are discouraged. Pre-existing rights and interests must be accommodated, but will be maintained as much as possible in a manner consistent with the zone purpose.

Existing roads, utilities, and facilities may be maintained at present levels as long as they do not threaten or degrade the significant resources. New construction will be permitted to replace or repair existing facilities and meet applicable codes and standards, including BMPs, or where needed for the protection of unique features.

#### Vegetation

Cutting of vegetation in this zone will not be performed except:

1. For public safety purposes.
2. For research purposes accommodated under special use permit.
3. For the benefit of rare, threatened and endangered species.

4. To achieve zone objectives (e.g. grapevine control and management of exotic species).
  5. As provided for in recreation and trail maintenance standards.
  6. As provided for in resource protection.
  7. As permitted by law (e.g. ginseng harvesting).
- If previously unrecognized rare, threatened or endangered species habitats or natural areas are identified, the Division of Natural Areas and Preserves and Division of Wildlife will be requested to provide recommendations regarding management of the area.

Exotic species will not be introduced for site rehabilitation after management or operational activities.

#### Forest Pests

“Exotic species can often upset the balance of the ecosystem...” (MMSF Ad Hoc), therefore, exotic species that threaten the “old-growth” condition of this zone will be managed utilizing the best available technology.

#### Wildfire Protection

In the event of a wildfire, the Division and local volunteer fire departments may respond within normal means and methods to minimize any loss to the resource. Rehabilitation efforts will be performed as necessary to restore the impacted area to its pre-fire condition as much as practicable.

Presuppression work, such as closing areas during dry periods and maintaining firebreaks roads shall be done in this area.

#### Cultural/Historical Resources

Sites identified to have cultural/historic value will be maintained for such values.

#### Catastrophic Events

Following catastrophic events (e.g. wildfire, high winds, ice storms, forest pests, etc.) roads and trails will be “brushed out” and made passable. Hazardous trees near recreational facilities will be felled. Forest management practices, such as salvaging damaged trees, will not be done.

## ZONE B

### PURPOSE

The purpose of this zone is to maintain continuous forest cover that will be a part of the large core of mature forest. This will be accomplished through practices designed to foster and accelerate characteristics of old growth conditions of 14 trees/acre which are each 17 inches and above DBH, and the retention of snags and coarse woody debris.

This zone contributes to the MMAHC's general goals of:

- a large core of mature forest,
- native plant and animal diversity,
- low-impact recreation, and
- education about forest ecosystems and their management.

## MANAGEMENT GUIDELINES

### Recreation and Trails

Low-impact recreation is permitted in this zone. “Low-impact recreation” for this plan is defined as: outdoor human activities that a) cause a minimal amount of disturbance and/or damage to the soils and native flora and fauna of the Mohican-Memorial State Forest ecosystems; and b) cause a minimal amount of disturbance to other forest users. Recreational uses should be sustainable such that any degradation to the forest ecosystems can be repaired and maintained within the Division's annual resources.

Allowable recreational uses in this zone include: hiking, horseback riding, cross-country skiing, snowmobiling, hunting, bird watching, fishing, mountain biking, park and pack camping, gathering, and other passive activities. Other activities compatible with the purposes of this zone may be accommodated through special use permit.

Practices and techniques employed to maintain trails, include relocating trail sections or closing trail sections as appropriate. Trail management practices will include all techniques listed in the “Bridle Trail Maintenance” policy and applicable BMPs.

Mountain biking is an additional acceptable form of recreation in this zone of Mohican-Memorial State Forest with the following limitation: mountain bikes will be excluded from some portion of the equestrian trails, providing horseback riders with the option of using single or dual purpose trails. Additional trails may be created for mountain bikes only or for mixed use.

Trails may be established for educational and interpretive purposes consistent with the intent of the zone.

All rules and policies of the standard State Forest Zone II shall apply to the area within 100 feet of either side of trails.

Facilities relating to allowable recreational uses may be developed in this zone. Any additional use will be evaluated as to its compatibility and sustainability with the use of the forest.

### Visual Resources

Special effort will be made to minimize visual impact of management practices.

All rules and policies of the standard State Forest Zone II shall apply to the roadsides within this zone.

### Wildlife Habitat

Old growth conditions will be given special consideration in all management activities. This will include, but not be limited to, the retention of den trees, mast producing large-live trees, standing dead trees, and downed trees. Non- native wildlife will not be introduced.

### Transportation, Facilities, and Utilities

New roads, utilities, and facilities are discouraged. Pre-existing rights and interests must be accommodated but will be maintained as much as possible in a manner consistent with the zone purpose.

Existing roads, utilities, and facilities may be maintained at present levels as long as they do not threaten or degrade the significant resources. New construction will be permitted to replace or repair existing facilities and meet applicable codes and standards, including BMPs, or where needed for the protection of unique features.

### Vegetation

Old growth hardwoods will be nurtured through application of unevenaged management primarily through single tree selection to maintain continuous forest cover. Group selection shall not be used in this zone. The selection of trees to be harvested or retained will be based on improving the old growth character, genetics, quality & stocking of the stand, and adaptability of species to the site. Treatment prescriptions will be based upon state-of-the art research generally accepted in the forestry community and as defined in applicable USDA handbooks or silvicultural guides

White pine plantations will be thinned from below to promote the longevity of the stand and encourage the development of large trees and natural hardwood regeneration. Red pine trees (or stands or plantations) will be removed in pre-salvage operations prior to anticipated mortality.

This work will be accomplished by utilizing the most efficient means available within sound environmental constraints.

If previously unknown rare, threatened or endangered species habitats or natural areas are discovered, the Division of Natural Areas and Preserves and Division of Wildlife will be requested to provide recommendations regarding management of the area.

Wild grape may be controlled when its growth threatens public safety or management objectives.

### Forests Pests

Insects and disease infestations will be managed through environmentally sound technology.

### Wildfire Protection

In the event of a wildfire, the Division and local volunteer fire departments may respond within normal means and methods to minimize any loss to the resource. Rehabilitation efforts will be performed as necessary to restore the impacted area to its pre-fire condition as much as practicable.

Presuppression work, such as closing areas during dry periods, maintaining firebreaks, maintaining transportation systems, and fuel management, shall be practiced in this area.

### Cultural/Historical Resources

Sites identified to have cultural/historic value within this area will be maintained for such values. Activity plans will be amended as necessary to protect such resources.

### Waterways

See Zone III-A Resource Protection Area for additional restrictions within the shade/filter strip of permanently flowing and intermittent streams.

### Catastrophic Events

Following catastrophic events, management operations may be employed for public safety, improved aesthetics, and to accelerate return to managed old growth conditions.

## ZONE C

### PURPOSE

The purpose of this zone is to provide education about forest ecosystems and their management. Education involves providing and interpreting information in various formats to forest owners, managers, and to the general public. This information will focus on forest ecosystems--flora and fauna and their relationships with other forest ecosystem components, and on management--the methods used to achieve the desired future conditions of the forest.

Mohican-Memorial State Forest is easily accessed from major metropolitan areas, and has a unique opportunity to further public awareness about forest ecosystems and their management. Various active and passive educational methods are envisioned, such as guided tours and talks, signs, and brochures. A full range of forest management practices should be demonstrated. Management of Zone C will be done to demonstrate management practices to private woodlot owners of the state. Any timber harvesting will demonstrate environmentally friendly techniques. Other educational topics should include management for wildlife, poor management practices which are commonly used (via audio-visual means only), and past Mohican-Memorial State Forest practices and history.

This zone contributes to the MMAHC's general goals of:

- native plant and animal diversity,
- low-impact recreation, and
- education about forest ecosystems and their management

### MANAGEMENT GUIDELINES

#### Recreation and Trails

Low-impact recreation is permitted in this zone. "Low-impact recreation" for this plan is defined as: outdoor human activities that a) cause a minimal amount of disturbance and/or damage to the soils and native flora and fauna of the Mohican-Memorial State Forest ecosystems; and b) cause a minimal amount of disturbance to other forest users. Recreational uses should be sustainable such that any degradation to the forest ecosystems can be repaired and maintained within the Division's annual resources.

Allowable recreational uses in this zone include: hiking, horseback riding, cross country skiing, snowmobiling, hunting, bird watching, fishing, mountain biking, park and pack camping, gathering, and other passive activities. Other activities compatible with the purposes of this zone may be accommodated through special use permit.

Practices and techniques employed to maintain trails, include relocating trail sections or closing trail sections as appropriate. Trail management practices will include all techniques listed in the “Bridle Trail Maintenance” policy and applicable BMPs.

Mountain biking is an additional acceptable form of recreation in this Zone of Mohican-Memorial State Forest with the following limitation: mountain bikes will be excluded from some portion of the equestrian trails, providing horseback riders with option of using single or dual purpose trails. Additional trails may be created for mountain bikes only or for mixed use.

Trails and associated facilities may be established for interpretation purposes consistent with the intent of the zone.

Trail buffering is not required but may be applied as desired to meet the objectives of the zone.

#### Visual Resources

The shape of clearcut areas will be designed to enhance the visual resource.

Visual impacts of management on Non Industrial Private Forests (NIPFs) will be a primary consideration in application and demonstration of practices.

#### Wildlife Habitat

Wildlife habitat development and maintenance will be considered in all silvicultural plans and operations. Considerations such as the retention of den trees, snags, and mast producing trees, development of diverse cover along streams, and seeding of grasses and legumes suitable for wildlife on closed out harvests will be incorporated into specific compartment harvest plans.

#### Transportation, Facilities, and Utilities

New roads, utilities, and facilities are discouraged. Pre-existing rights and interests must be accommodated, but will be maintained as much as possible in a manner consistent with the zone purpose.

Existing roads, utilities, and facilities may be maintained at present levels as long as they do not threaten or degrade the significant resources. New construction will be permitted to replace or repair existing facilities and meet applicable codes and standards, including BMPs, or where needed for the protection of unique features.

Road buffering is not required but may be demonstrated to meet the objectives of Zone C.

#### Vegetation

Vegetation management will be permitted to open up vistas, improve pedestrian access, and encourage indigenous plant and wildlife species.

### Silviculture

Management Systems - A range of management systems will be utilized to secure adequate natural regeneration of species adapted to the site (that have high multiple-use or commercial value). The selection of trees to be harvested or retained in all improvement operations will be based on varied landowner objectives, site, balanced ecological and economic values, improving the genetics of the stand, and quality, stocking and adaptability to the site. Treatment prescriptions will be based on state-of-the-art practices as defined in the applicable USDA handbooks or silvicultural guides.

The following silvicultural systems and/or methods will be employed to demonstrate the management of the resource: group selection, patch cutting, crop tree release, two-aged, clearcutting and shelterwood. In addition, methods of management may be employed to perpetuate and sustain oak, white pine, and hemlock. Site conversions and plantings may also be considered to achieve zone objectives.

Timber Stand Improvement (TSI) will be used to improve the quality and vigor of timber stands.

### Forest Pests

Insects and diseases will be managed through environmentally sound programs.

### Wildfire Protection

In the event of a wildfire, the Division and local volunteer fire departments may respond within normal means and methods to minimize any loss to the resource. Rehabilitation efforts will be performed as necessary to restore the impacted area to its pre-fire condition as much as practicable.

Presuppression work such as closing areas during dry periods, maintaining firebreaks, maintaining roads, and fuel management, shall be done in this area.

### Cultural/Historical Resources

All sites identified to have cultural/historic value within this area will be maintained for such values. Activity plans will be amended as necessary to protect such resources.

### Waterways

See Zone III-A Resource Protection Area for additional restrictions within the shade/filter strip of permanently flowing and intermittent streams.

### Catastrophic Events

Following catastrophic events, management operations will be employed to demonstrate mitigation and restoration.

**Appendix B**  
**Director's News Release**



# News Release

**Ohio Department of Natural Resources**

*Bob Taft – Governor*  
*Sam Speck – Director*

**Office of Public Information & Communications**

Phone: (614) 265-6882

Fax: (614) 267-9165

**FOR IMMEDIATE RELEASE**

June 28, 1999

**ODNR DIRECTOR WELCOMES ADVISORY COUNCIL'S  
RECOMMENDATIONS  
FOR MANAGEMENT OF MOHICAN-MEMORIAL STATE FOREST. ANY  
LIMITED TIMBER HARVESTING IN THE FOREST WILL NOT UTILIZE  
COMMERCIAL LOGGING**

COLUMBUS, OH — Ohio Department of Natural Resources (ODNR) Director Sam Speck said today that he welcomes the Mohican-Memorial State Forest ad hoc Advisory Council's recommendations for management of the 4,500-acre state forest, which he said will ensure the long-term vigor and well-being of this unique forest resource. Speck said that ODNR will implement the proposals without the use of commercial logging.

The 10-member advisory council was created in 1996 to provide guidance to the ODNR Division of Forestry in developing a long-term strategy for management of the forest and its resources.

"Recommendations by the Mohican-Memorial State Forest ad hoc Advisory Council recognize the unique nature and role of this forest, and carefully strike a balance between its recreational, educational and interpretive resources. I am pleased to accept the advisory council's recommendations with some important modifications," Speck said. Those modifications include:

1) ODNR will not contract with commercial bidders for the sale of timber lots, thus keeping the department's commitment that no commercial logging will be conducted at Mohican-Memorial State Forest. As recommended by the advisory council, limited timber harvesting will be conducted in designated portions of the forest, but commercial logging — such as bidding out a stand of timber — will not be used in such instances.

2) Educational programming in the forest that utilizes any timber harvesting will emphasize the demonstration of environmentally friendly techniques for forest management.

3) The educational focus will clearly be on the management of small woodlots, which is the predominant type of privately owned forest land in northern Ohio.

## MOHICAN-MEMORIAL STATE FOREST

4) Revenue received by ODNR from any harvest, in excess of the cost of the project, will be used for the purchase of additional in-forest or peripheral land to expand Mohican-Memorial State Forest. Speck said he hopes the department might obtain other resources for the purchase of additional land at the forest.

"I commend advisory council members for their volunteer efforts over the past three years to work through their varied interests and reach consensus on a common goal — to protect the forest. Their guidance provides a blueprint for the future, helping us maintain a healthy and diverse forest, while establishing educational demonstration areas where private landowners can learn proper forest management techniques," Speck said. He noted that more than 90 percent of Ohio forests is under private ownership.

In an effort to promote forest management education and training. Speck announced that ODNR has teamed with Hocking College in Nelsonville to expand educational opportunities in the forest. Students from the college's School of Natural Resources & Ecological Sciences will gain hands-on experience through forest management activities in areas designated by the advisory council's recommendations.

"By providing training, education and research for Ohio's future conservationists, we can assist our logging industry to adopt new best management practices," Speck said. "One means will be to demonstrate alternative equipment and technology that is more environmentally friendly to the forest."

In its final report to ODNR, the advisory council had recommended organizing the state forest into three management zones:

Zone A (3,246 acres) - A total of 2,146 acres of the state forest, including the 270-acre Mohican Shrine, would be designated as a "no harvest" area, allowing these sections to mature to "old growth" characteristics. The 1,100-acre Mohican State Park and the Clear Creek Gorge State Nature Preserve are already managed by ODNR as "no harvest" areas, making nearly 60 percent of all state land in the Mohican region off-limits to timber management under this recommendation.

Zone B (1,698 acres) - Areas totaling about one-third of the state forest may be managed using single-tree selective harvesting, while preserving the full forest canopy. This will permit single-tree selection to promote the growth of larger trees without affecting the overall forest cover. This will ensure the health of the overall forest, promote the growth of desirable hardwood species and enhance diversity of wildlife and songbird habitat.

Zone C (766 acres) - Within limited, peripheral areas of the state forest property, a total of approximately 560 acres will be set aside for a variety of educational demonstrations of forest ecosystems and timber management techniques. This will include a limited amount of timber harvesting, conducted on a periodic basis.

Speck said that the limited harvesting at the state forest will focus on several educational components, with special emphasis on demonstrating techniques for the management of small woodlots — the kind commonly found throughout northern Ohio. A number of other techniques will be highlighted to encourage responsible timber management, including protection of the forest floor and its habitat.

## **MOHICAN-MEMORIAL STATE FOREST**

Mohican-Memorial State Forest was created in 1928, when the State of Ohio purchased abandoned, eroding farmland in Ashland County. Trees originally planted to grow quickly and control erosion have been successfully managed by the Division of Forestry for more than 70 years, creating one of Ohio's most popular forest areas.

"Over the past 70 years, sound resource management has created and maintained the unique state forest we know and enjoy today," Speck said. "Mohican-Memorial State Forest will continue to be the most protected of our 20 state forests, and concerns that the forest will undergo significant changes are unfounded. These recommendations envision only limited, selective management activities in carefully designated portions of the state forest."

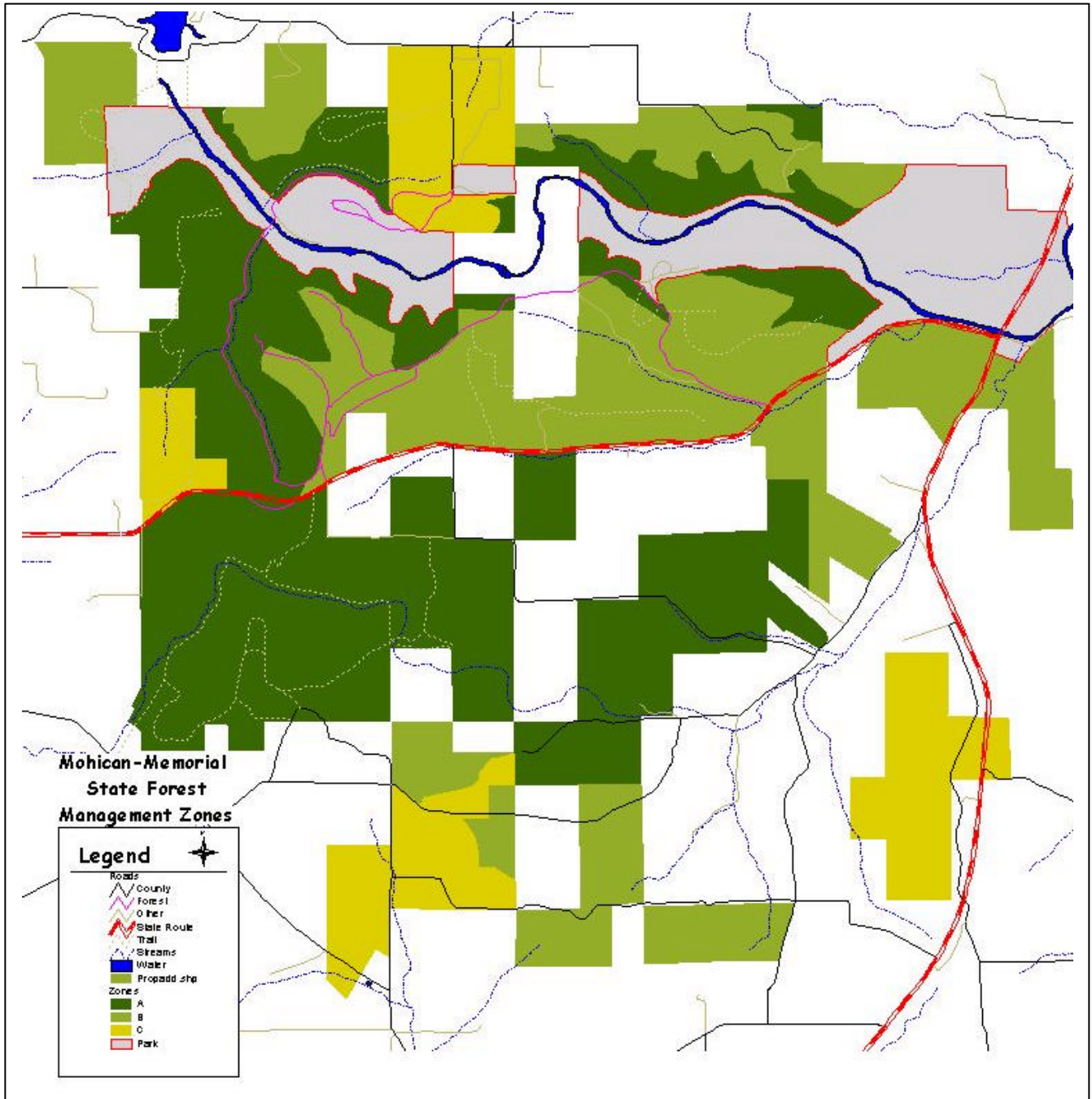
Members of the Mohican-Memorial Forest ad hoc Advisory Council, who represent a diversity of interests, included conservation professionals, local government leaders, environmentalists and private landowners. The advisory council's recommendations focus on creating a large section of mature forest (at least 75 years old), fostering native plant and animal diversity, providing recreation with minimal impact to forest resources and educating Ohioans about proper forest management.

The ODNR Division of Forestry will now begin preparing a detailed five-year action plan for management of the Mohican-Memorial State Forest. The Division of Forestry expects to complete the five-year plan next summer. "While the ad hoc advisory council has provided us with the framework for future management, we plan to seek additional consultation with regional conservation groups in the future to help us further develop education initiatives at the state forest, including forest floor protection."

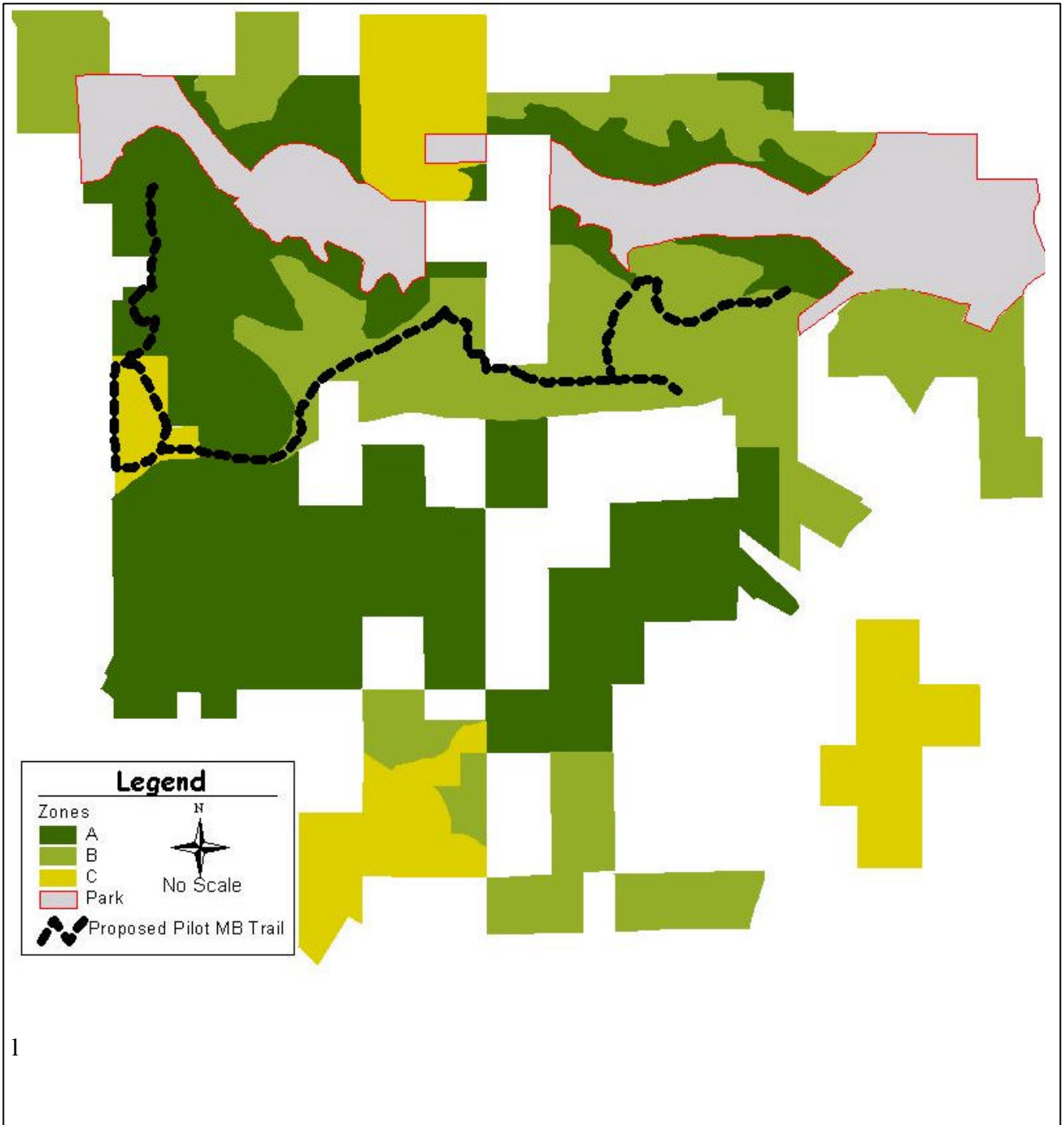
Today, Ohio is 30 percent forested, compared to just about 10 percent forest cover in the early 1900s, thanks in great part to vigorous reforestation programs conducted by ODNR over the past half-century. The ODNR Division of Forestry grows and distributes more than 5,000,000 trees each year for reforestation efforts throughout the state. More than \$4,000,000 has been invested over the past two years at ODNR's two tree seedling nurseries, in Marietta and Zanesville, to strengthen that effort.

**For Further Information Contact:**  
ODNR Media Relations  
(614) 265-6886

## Appendix C Management Zones



**Appendix D**  
**Proposed Pilot Mountain Bike Trail**



1

**Appendix E**  
**State Forest Expectations**

**#00-7**

**STATE FOREST EXPECTATIONS**  
**Division of Forestry**

<b>Effective</b>	January 3, 2000, rev. 9/18/00
<b>Purpose</b>	To provide program guidance in allocation of time and effort (establishing priorities)
<b>Authority</b>	ORC Chapter 1503
<b>Reference</b>	<i>Division of Forestry Mission Statement, June 1, 2000</i>
<b>Resource</b>	State Forest Operations Administrator State Land Management Administrator Fire/Law Program Administrator

The "current expectations" (goals) from state forests are listed below. Those "current expectations" follow by priority:

1. Promote the health, safety, welfare, security, and protection of lands, resources, equipment, and facilities for the public and employees.
2. Conduct and complete in a timely manner (by due dates) the administrative functions required by and necessary to the continued operation of the Division and its support of state government.
3. Train and maintain quarterly contact with assigned volunteer fire departments. Keep losses (within the fire protection area) to 5,000 acres annually on a five-year average. Support the Ohio Rural Fire Council, ICS, and establishment of a prescribed fire management program.
4. Establish and maintain contacts with township trustees, county commissioners and neighbors where units are located. State Forest Manager will contact township trustees at least twice/year. District Forester will attend at least one commissioner meeting/year for counties where units exist.

5. Vigorously enforce the fire laws and Forestry rules and statutes in areas of jurisdiction. Districts should contact area law enforcement agencies, courts, and sheriff at least annually.
6. Contact state legislators person-to-person and maintain at least annual contact with constituent groups. (District foresters coordinate with service/urban coordinators as needed). I & E activities shall support the maintenance of contacts.
7. Administer current timber harvests at the highest standard through vigilant inspection and reclamation.
8. Suppress forest fires on state forest lands and back up volunteer fire departments with technical assistance and heavy equipment on larger and multiple fire situations.
9. Demonstrate good land stewardship by offering timber harvest expectation levels where identified by prescription cruises and consistent with existing state forest zoning. Demonstrate application of prescribed fire as a management tool to achieve land use objectives.
10. Aggressively plan and implement an effective wildfire prevention program.
11. Maintain existing roads to at least the minimum standards. Pursue cooperative road maintenance arrangements with local governments and other agencies where in the best public interest.
12. Inventory and assess scheduled compartments per land management manual for multiple use management objectives.
13. Maintain existing recreational facilities, including hiking, horse and APV trails and campgrounds to at least minimum standard (includes "improvements" that are performed within the context of expectation #1, but not expansions).
14. Maintain existing administration structures and facilities in a decent, safe and sanitary level.
15. Perform general grounds maintenance and mowing to a minimum level along roads and around administrative areas.
16. Provide appropriate level of support to other activities and ongoing forestry programs and activities. Accommodate service forestry field days on state forests.

IMPLICIT IN ALL OF THIS IS FIRST ALLOWING ENOUGH TIME FOR TRAINING, SAFETY MEETINGS, STAFF MEETINGS, VACATIONS, ETC

## **Appendix F**

### **Columbia Gas Transmission Corporation Easement Guidelines**

(Note: these guidelines were provided recently by the Columbia Gas Transmission Corporation and are included here for information.)

#### **Columbia Gas Transmission Corp. Minimum guidelines for construction activities in the vicinity of gas pipelines**

Columbia Gas Transmission Corp.'s (Columbia) minimum guidelines for construction activities are intended to ensure the safety of the public and preserve the integrity of Columbia's facilities. Columbia will cooperate to the extent possible in the use of property in the vicinity of its facilities, but to protect public safety and assure the nation's continuous supply of energy deliveries. Columbia cannot allow its facilities and attendant property rights to be compromised.

To minimize conflicts and delays, property owners and developers are encouraged to consult Columbia in the design phase of their project and receive approval of their construction plans before obtaining zoning permits and committing to construction schedules.

#### **Construction**

No Construction or excavation activities of any kind, including blasting, shall be done on Columbia's right of way area before Columbia personnel have established the actual location of all affected facilities and the limits of the ROW area. Columbia personnel must be present during any construction or excavation activities.

#### **Notification**

Columbia must be notified at least two working days before construction begins in the vicinity of its facilities. This notification shall be made through the appropriate state one-call notification service, but follow up contact should be made with the local Columbia Gas Transmission office.

#### **Excavation in the vicinity of pipelines**

No excavation shall be made on the pipeline right-of-way without prior notification to Columbia through the state one-call notification service. Subsequent follow-up must be made to Columbia to seek approval for the proposed construction. Approved excavations that are done above, below or within three-feet of either side of the pipeline shall be dug using hand tools.

#### **Crossing pipelines with heavy equipment**

To adequately protect Columbia pipelines from potential damage by heavy equipment crossing the right-of-way, Columbia may require heavy equipment operators to install mats, dirt pads, or other approved protective materials. The additional over-burden must be removed after construction unless otherwise directed by Columbia personnel.

## **Blasting**

Any blasting proposed within 300 feet of Columbia facilities must have prior written consent by Columbia. Consent must be requested by submitting a blasting plan for evaluation by Columbia personnel. Any required modifications to the blasting plan will be specified by Columbia in writing. The blasting contractor may be required to monitor and record seismic shock at the facilities.

## **Operating Area of Storage Wells**

In order to safely and efficiently operate and maintain Columbia's natural gas storage fields, Columbia requires up to 300-foot or larger clear area around each well. Accordingly, the company requires notification of, and reserves the right to object to, any proposed above-ground or below-ground construction activities or placement of objects closer than 300 feet in any direction of a wellhead.

## **Rights-of-Way**

1. The existing cover over pipelines, which is normally 36-inches, shall be maintained. The minimum earth cover over pipelines at all street and road crossings, including the adjacent ditch line, shall be 36-inches; 60 inches minimum cover shall be maintained at stream and river crossings.
2. Above ground or below ground structures or obstructions of any type shall not be placed within the easement area of any pipeline, which is generally 25 feet each side of the pipeline.
3. Pipeline easements shall not be shared longitudinally with other utilities. All water valves, curb boxes, manholes, etc. must be outside the easement. Other utilities which cross Columbia pipelines must do so at or as near 90 degrees as practical and with a minimum of 12-inches vertical clearance. Any crossing not installed below Columbia's pipelines must have prior written consent from Columbia. Cable or wire utilities must be in conduit the full width of the easement. For safety reasons, all electric and fiber optic lines crossing Columbia's pipelines shall be surrounded with a minimum of six inches of concrete for the full width of the right-of-way. All crossings must be approved by Columbia before installation begins.
4. Roads shall cross pipelines at or as near 90 degrees as practical, but at angles not less than 45 degrees. The entity constructing the street must pay for any measures required by Columbia to protect its pipeline(s). such protective measures shall be designed and/or approved by Columbia personnel.
5. Paved areas, such as parking lots, shall not be allowed over the easement unless the pavement can be altered so as not to impact the safe and reliable operation and maintenance of Columbia's pipeline. Concrete paving in Columbia's right-of-way is prohibited. Consequently, all plans for pavement within a Columbia right-of-way must be submitted and approved by Columbia personnel before paving can begin.
6. Septic tanks and leach fields should be placed so they drain away from the pipeline where practical. In no case shall they be placed in the easement area.

7. The right-of-way may be planted in lawn and small shrubs (less than 5 feet tall) or may be used for normal agricultural purposes. However, shrubs will not be allowed within 5 feet each side of the pipeline. Shrubs greater than 5 feet tall and trees, including fruit or nut bearing trees of any kind are prohibited within the right-of-way.
  
8. Fences that block visual inspection or interfere with access to Columbia's facilities are prohibited within Columbia rights-of-way. Fences permitted by Columbia to cross its rights-of-way must be designed with 12-foot gates centered on the pipelines and must cross at or as near to 90 degrees as possible.

**Note:** *These guidelines supersede any and all prior guidelines and/or directives pertaining to activities and placements on or near Columbia Gas Transmission facilities. Existence of, or the ramifications from, the implementation of prior guidelines will not dictate, direct or provide for exemption of any of the above guidelines.*

October 3, 2000

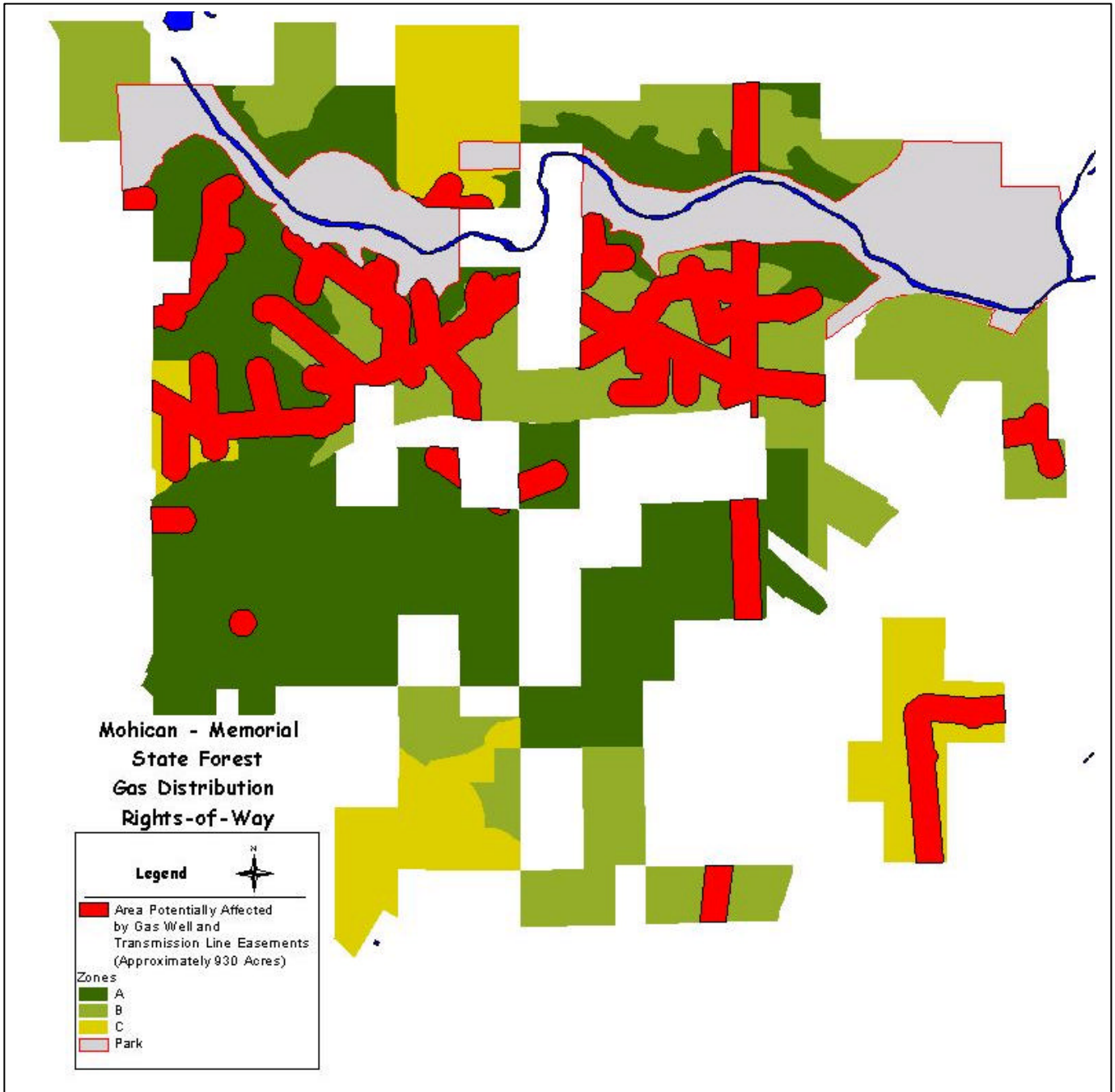
For more information, call the appropriate Columbia representative.

Ohio and Pennsylvania: 330-721-4150

West Virginia & Kentucky: 304-373-2403

Delaware, Maryland,  
North Carolina, New Jersey,  
New York, Virginia: 540-465-6400

Appendix G  
Potential Buffer Areas Around Gas Wells and Lines



**Appendix G**  
**Cruise Schedule**

Fiscal Yr	Task
FY 02	<ul style="list-style-type: none"> <li>* Cruise Zone C where our latest cruises are prior to 06/30/96.</li> <li>* Analyze data.</li> <li>* Develop proposal for educational sites.</li> <li>* Cruise Zone B where our latest cruises are prior to 06/30/96.</li> <li>* Analyze data.</li> <li>* Develop 10-year cruise cycle for Zones A &amp; B.</li> </ul>
FY 03	<ul style="list-style-type: none"> <li>* Cruise per schedule</li> <li>* Start practices on ground.</li> </ul>
FY 04	<ul style="list-style-type: none"> <li>* Cruise per schedule.</li> <li>* Put practices on ground.</li> </ul>
FY 05	<ul style="list-style-type: none"> <li>* Cruise per schedule.</li> <li>* Put practices on ground.</li> </ul>
FY 06	<ul style="list-style-type: none"> <li>* Cruise per schedule.</li> <li>* Put practices on ground.</li> </ul>

## Glossary of Terms

As used in Mohican-Memorial State Forest Plan

**Best Management Practices (BMPs)** – Activities and control measures that minimize the potential for off-site pollution. (BMPs for Erosion control on Logging Jobs in Ohio, 1992)

**“Diversity”** – “a variety of species found in the context of a mature forest ecosystem and the earlier successional forest habitats created by both natural disturbances and by harvesting.” (Ad hoc Council)

**“Education”** – “providing and interpreting information in various formats to forest owners, managers and *to* the general public” (Ad hoc Council)

**Endangered Species** – a native Ohio plant species whose natural population(s) are in immediate danger of extirpation from Ohio, and/or any federal endangered plant species in Ohio. (OAC 1518:1-01(D) and Endangered Species Act of 1973, 87 Stat. 884, 16 U.S.C. 1531, as amended)

**“Exotic (alien) Species”** – “species that have invaded or been introduced to the Mohican since settlement from other continents or from other North American regions.” (Ad hoc Council)

**Historic Properties** – sites, structures, buildings, places, objects, and districts that meet the criteria of the state registry of archaeological landmarks, the definition of archaeological sites as written in section 149.52 of the Revised Code, the state registry of historic landmarks or the national register and which possess archaeological data. (OAC 149:1-02(4))

### **OR**

– any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior...includes artifacts, records and remains that are related to and located within such properties...includes properties of traditional religions and cultural importance to an Indian tribe.... (National Historic Preservation Act of 1966 as amended, 16 U.S.C.)

**“Large Core”** – “an area with a minimal amount of fragmentation (forest/non-forest edge) and thereby allowing a large block of mature forest habitat for late-successional and interior-forest species of plants and animals.” (Ad hoc Council)

**Large poles** – a stand size class based upon the average stand diameter where the medial diameter of all trees 1.0” and larger is greater than 7.5” and less than 10.5”.

**Large sawtimber** – a stand size class based upon the average stand diameter where the medial diameter of all trees 1.0” and larger is greater than 16.5”. These stands usually have a medial diameter in merchantable-size trees of 18” or more.

**“Low Impact Recreation”** – “outdoor human activities that a) cause a minimal amount of disturbance and/or damage to the soils and native flora and fauna of the Mohican-Memorial State Forest ecosystems; and b) cause a minimal amount of disturbance to other forest users.” (Ad hoc Council)

**“Mature Forest”** – “forested areas that have a continuous canopy cover of mature trees (at least 75 years old).” (Ad hoc Council)

**Medium sawtimber** - a stand size class based upon the average stand diameter where the medial diameter of all trees 1.0” and larger is greater than 13.5” and less than 16.5”.

**“Native Plants and Animals”** – “those that would be found in the Mohican area or central Ohio during pre-European settlement times.” (Ad hoc Council)

**OR**

**Native Species** – a species which, by accepted scientific evidence, was present in Ohio immediately prior to European exploration and settlement. (OAC 1501:18-1-01)

**“Old Growth”** – “the forest has not been harvested for at least 120 years...characterized as having at least 14 trees/acre which are 17+ inches DBH, large dead trees (snags), and large dead and down material (coarse woody debris).” (Ad hoc Council/Shifley, 1995)

**Saplings** - a stand size class based upon the average stand diameter where the medial diameter of all trees 1.0” and larger is less than 4.5”.

**Small pole stands** - a stand size class based upon the average stand diameter where the medial diameter of all trees 1.0” and larger is greater than 4.5” and less than 7.5”.

**Small sawtimber** - a stand size class based upon the average stand diameter where the medial diameter of all trees 1.0” and larger is greater than 10.5” and less than 13.5”.

**Species** – a species, subspecies or variety. (OAC 1501:18-1-01(N))

**Threatened Species** – a native Ohio plant species likely to become an endangered species in Ohio within the foreseeable future, and/or any federal threatened plant species in Ohio not on the state endangered species list. (OAC 1501:18-1-01(O) and Endangered Species Act of 1973, 87 Stat. 884, 16 U.S.C. 1531, as amended)

**Zone** – An area or areas delineated for a common purpose(s) or objective(s).

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