

# Ohio Department of Natural Resources

## Division of Forestry

### Annual Work Plan

For

### Mohican-Memorial State Forest

For the Period of

2021/22

October 1, 2021 to September 30, 2022



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***Approved By:***

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# OHIO DIVISION OF FORESTRY

## I. Forest Overview

### *History & Description:*

Mohican-Memorial State Forest is in southern Ashland County, midway between Columbus and Cleveland. This State Forest is managed under the multiple-use concept for timber and wildlife habitat, forestry research and demonstrations of good forest land management, primitive recreation and protection of soils and watershed. Timber products obtained from harvest, stand improvement and thinning operations include saw logs and veneer logs, with some pulpwood and firewood.

During the spring and fall fire seasons, a major objective of the forest organization is to prevent, detect and suppress wildfires that occur on state and private land within the protection district.

Land acquisition for the forest began in 1928 and has continued with the accumulation of over 4,500 acres (exclusive of state park land). The land use history of the forest is typical of eastern Ohio. Original forests were cleared for agriculture, but eventually erosion ensued, and fertility decreased. Farms were abandoned and subsequently reverted to brush and woodland.

At the time of acquisition, planting of trees on abandoned land was a high priority activity. This resulted in the many plantations of white and red pine and mixtures of these and other pine species that you see today. Much of the tree planting was completed by personnel from the Civilian Conservation Corps, whose camp was located on the forest during the 1930s. Native hardwood of the oak-hickory and beech-maple types and associated species of gum, aspen, ash, cherry and walnut occur on unplanted areas. Native white pine and hemlock are also found.

## II. Resource Management

### *Current Forest Composition:*

Mohican-Memorial State Forest can be categorized into three broad forest types. Current data show that the forest type with the largest number of acres is pine plantation (artificial plantations of rows of white pine and red pine). Pine plantations account for nearly 1,800 acres of this state forest or 40% of the forested area. These plantations came from historic efforts of the Civilian Conservation Corps from the Depression and World War II eras. They were planted to prevent soil erosion from marginal and degraded farmland that had recently become state property. The intent of these plantations was to conserve soil long enough that a future native hardwood forest would eventually be established thru management and eventual removal of the pine trees.

Thinned plantations enjoy a vigorous growth of understory vegetation of hardwood trees and shrubs. Most of the pine plantations at Mohican are dense with little or no sunlight hitting the forest floor resulting in an understory that is devoid of plants, animals, or other biota. The overstocked conditions also cause stress to the un-thinned trees resulting in mortality from disease, insects, or moisture and nutrient deficiencies.

The second most common forest type at Mohican is hardwood mixed mesophytic stands. These stands are dominated by tree species such as yellow poplar, sugar and red maple, ash, and beech. Mixed mesophytic stands occupy about 1,600 acres or 36% of the land area at Mohican. Mixed

mesophytic forests are moist sites that occur on north facing slopes, coves, and bottomlands where sunlight is not direct, and moisture is not limiting. These stands are generally mature and the understory vegetation in these stands consists of maple and beech saplings.

The third forest type at Mohican includes hardwood stands dominated by oak and hickory species. These stands occupy the least amount of land area at about 1,100 acres or about 24% of the land area at Mohican. Oak and hickory stands are dominated by trees such as white oak, red oak, scarlet oak, chestnut oak, hickory species, with other assorted tree species present. Oak / hickory stands usually occur on dryer southern exposures or on sites with a history of disturbance such as fire or harvesting. The understories in these stands are dominated by maple and beech species which means that these stands are likely to eventually convert to maple and beech forests. Oak and hickory trees are considered keystone species in this region due to the dependence that many other insects, plants, and wildlife have on these trees.

Most of the forested stands at Mohican (78%) are dominated by trees that are between 12 inches and 18 inches in diameter (measured at 4.5 feet off the ground) and have complete crown closure in the canopy allowing no sunlight to hit the ground during the growing season. Less than 1% of the forest has stands that are young, early successional forests dominated by seedlings, saplings, and shrubs. Less than 10% of the forested stands have open canopies whereby sunlight could reach the forest floor to allow herbaceous plants to grow. Early successional forests are also lacking throughout Ohio. Early successional forests are a key component for a variety of forest-dependent wildlife species (See 5-year management plan for state forests).

#### Planned Silvicultural Practices:

##### Ongoing Removal of Hazard Trees and Ash Trees continues:

Several insect and disease pests have caused mortality of trees in localized areas. These pests include the emerald ash borer (EAB), gypsy moth, and others. In the interest of public safety, Division staff will take measures to ensure the safety of visitors to Mohican as well as the health and sustainability of the forest. Ash trees located along roadways, buildings, recreational areas, or trails are trees that could be targeted for removal for public safety reasons. The salvage trees will be processed and sold to local sawmills or offered for public firewood permits.

##### Restoring Native Hardwoods Initiative: Demonstration Area Thinning.

The Restoring Native Hardwoods Initiative (RNHI) by the Ohio Department of Natural Resources – Division of Forestry seeks to promote the restoration of native hardwood forests at Mohican-Memorial State Forest. The initiative’s goal is to restore native diversity in the forest, both plant and animal, by slowly managing artificial pine plantations to promote the regeneration of native, naturally regenerating, hardwood tree species that are so important to a host of wildlife species.

Mohican-Memorial State Forest has approximately 800 acres that have been designated to serve as demonstration area or outdoor classrooms. Outdoor “classrooms” are in short supply in our culture and there exists an opportunity to provide a place for students to learn about the management of natural resources. Mohican State Forest is within 1 hour of several universities. By providing an outdoor educational area that highlights forest management, we can foster an educational partnership with these institutions for the betterment of students.

In the coming fiscal year(s), the Division plans to continue to implement the Restoring Native Hardwoods Initiative by proposing the following pine plantation thinning harvests.

Sales to be Marked FY 2022									
State Forest	Compartment(s)	Vol. Bd. Ft.	Total Ac.	Singletree or Group Selection	Clearcut / Openings	Shelterwood	Deferment	Pine Thinning	County / Twp
Mohican	B-10/C-1		78					78	Ashland/Hanover

Appendix B contains maps for locations of planned harvest demonstration areas:

As part of the RNHI, the Division of Forestry has committed to thin between 20-40 acres of pine plantations per year. The pine thinning areas proposed above represent the next two years of proposed RNHI treatments.

All proposed harvest activity is reviewed by a variety of DOF staff, and considerations and mitigations to potential impacts are put in place to minimize long-term impacts and maximize forest health.

*High Conservation Value Forest Monitoring:*

Maintaining and promoting the features that make areas designated HCVF's are important to the Division of Forestry. To accomplish this task, we will collaborate with the Division of Wildlife's Biodiversity Program to monitor a select number of HCVF areas each year. HCVF areas will be monitored as time and budgets allow.

*Minerals:*

TransCanada Corporation (formerly Columbia Gas Transmission) holds a lease with the State of Ohio for operation of 54 natural gas storage wells and about 17 miles of pipeline right-of-way located on the forest. Rights-of-way will be maintained in a 30-foot width over gathering pipelines and a 50-foot width on main transmission lines. Well sites will be maintained with no trees within 60 feet of the well head. Right of way maintenance will occur in the form of mowing, spraying, or mulching over the course of any given year.

*Invasives:*

Invasive plant species are targeted for control by forest operations. In fiscal year 2022, state forest personnel will continue to target bush honeysuckle, ailanthus, English ivy, and other invasives as time and budgets allow, when they are encountered on the forest.

*Boundary:*

Approximately 5 miles of forest boundary will be repainted with yellow and/or red paint. Signage and boundary markers will also be checked and replaced, as necessary.

*Licenses/Leases*

Leases and agreements will be monitored to assure compliance when operating on the forest.

*Insects & Disease:*

The Division of Forestry has an active forest health program. Our staff are monitoring and controlling the effects of several invasive pests. During the period covered by this plan, the Division of Forestry will be monitoring for hemlock wooly adelgid (HWA) on Mohican-Memorial State Forest. Additionally, parts of Mohican-Memorial State Forest may be surveyed for the presence of beech leaf disease (BLD) as part of a larger effort to estimate the extent of spread of the disease within the State.

Gypsy Moth activity on the forest will be monitored and communicated as events occur. Potential salvage activities may result if warranted.

We will cooperate with the American Chestnut Foundation in their research effort to bring back American Chestnut trees to North America. Two American Chestnut plantations exist that will be monitored and maintained.

#### *Utilization & Marketing:*

Public firewood permits are available at the state forest office on a first-come, first-serve basis. Permits are issued as the need for firewood removal arises. Firewood permits are intended for homeowner use only and not for commercial firewood businesses. Interested individuals may contact the state forest office for information regarding firewood permits.

#### *Research:*

The US Forest Service monitors a plantation of American Elm trees on the forest. We will continue to cooperate with their research with the Dutch Elm Disease research project. There are currently 30 trees planted in the research project that began in the summer of 2003.

#### *Certification:*

The Division of Forestry manages the only land in Ohio that is dual certified to the standards and criteria of The Forest Stewardship Council® and the Sustainable Forestry Initiative. DOF will continue its certification program with annual audits that occur in the fall of each year.

### **III. Maintenance**

#### *Buildings:*

There are approximately 13 buildings and/or structures located on Mohican – Memorial State forest. These include:

1. Forest Office
2. Office Well House
3. Service Center
4. Long Garage
5. Saw Shop
6. Memorial Shrine
7. Shrine Latrine
8. Shrine Well House

9. Bridle Latrine #1
10. Bridle Latrine #2
11. Mountain Bike Latrine
12. Fire Tower

*Lease with JATAC / Mohican Young Star Academy:*

The facility formerly managed by the Department of Youth Services was leased in 2013 to JATAC / Mohican Young Star Academy. ODNR Division of Forestry has also agreed to allow the exclusive use of 2 acres near the facility to be used as a softball field. The current use of the 2-acre site is as a day-use area for horse trail users. To accommodate the displaced horse trail users, ODNR has expanded the current Bridle camp area on the south side of state route 97. The softball field will be open for day trail riders each fall from September 1 to April 30.

*Memorial Shrine:*

Utilizing funding provided by Columbia Gas Transmission, the Division completed several improvements and maintenance projects at the Memorial Shrine. For the upcoming fiscal year, no new projects are anticipated outside of normal maintenance activities.

*Infrastructure (water, wastewater, utilities):*

The Division of Forestry will be constructing a new ROMTEC latrine at the Bridle Day Use area. This project is expected to begin during Summer 2021.

*Vehicles/Equipment:*

Continue the preventive maintenance, timely service, and repairs to the unit's fleet of vehicles and equipment.

*Vehicles:*

- 2002 Freightliner Transport
- 2009 Ford F250 Pickup
- 2000 International 4900 Dump Truck
- 2020 Ford F250 Crew Cab Pickup
- 2010 Ford F250 Crew Cab Pickup

*Equipment:*

- John Deere 450 Bulldozer
- John Deere 350 Bulldozer
- John Deere 6410 Tractor with boom mower
- Ford 6640 Tractor
- Ford 5030 Tractor
- 20,000 lb. GRVW Moritz Lowboy Trailer
- Polaris ATV (6 wheel drive)
- Polaris ATV (4 wheel drive)
- Zero-turn mowers

*Roads:*

The entire forest road was recently re-paved and chip-and-sealed in early 2018. New culverts and berms were also installed. This was a significant project that will impact forest visitors. This project was a cooperation with the Ohio Department of Transportation and is funded through the ODOT cooperative roadway maintenance fund.

State Forest staff will mow the roadsides approximately 2 times per year. State Forest staff will reduce the number of hazard trees along the roadside over the winter months. All parking areas on the state forest will be maintained.

Limited access roads are monitored annually. Any repairs and/or maintenance needs will be done by the forest or the appropriate agency using the road (e.g. Columbia Gas and other utility companies).

#### IV. Recreation

##### *Trails (bridle, backpack, etc.):*

Recreational trail maintenance is an important part of our management of the forest. We continue working with volunteers to maintain 25 miles of mountain bike trail, 27 miles of bridle trail and two bridle day use areas, and 2 miles of hiking trail.

In fiscal year 2022, portions of the bridle trail system are proposed to be re-routed to minimize difficult hazardous situations for public safety. Map of this re-routes are in Appendix C.

##### *Bridle Trail Seasonal Closure:*

Bridle Trails are very popular with visitors to Ohio's state forests. That's why it is important that the Division of Forestry manage these trails in a way that allows them to be sustained for the long term. The Division of Forestry has decided that a seasonal trail closure, which would minimize traffic during the wettest months of the year, will help protect these trails. Seasonal trail closure during wet periods is a common management technique used by many public agencies to minimize negative impacts.

Feedback from Division of Forestry annual open house meetings, together with feedback gathered by email, was provided to our management committee. This feedback helped them to understand how and when these trails are most valuable to bridle trail users and was considered in making the decision about seasonal trail closures.

**The date for the bridle trail closure for this winter season will be January 3, 2022. The date to reopen the trails has not been determined, but it will be no later than the first Friday in April.** When the reopening date is determined, it will be posted on the website.

During this closure period, the trails can be more safely maintained by forest staff and organizations with approved volunteer agreements. The trails will be monitored to safely remove debris and hazardous trees. Where needed and appropriate, dozer work for trail stability, soil erosion control and trail tread rehabilitation can safely occur as weather conditions allow.

Signage will be installed at the campgrounds and day-use areas that will designate the trails as

open or closed. Gates will be installed at the camps as needed. Additional signage will be put on the horse trails that can be accessed from roads.

Trail rides can be requested during the closed season. The applicant will need to complete a [Special Use Permit](#) (SUP) application and submit it to the local forest manager at least 5 working days prior to the event. This will provide adequate time for the Division of Forestry to evaluate and potentially approve the SUP.

#### *Campgrounds:*

Park and Pack Campgrounds, picnic areas, trailheads, and other places where forest visitors congregate will be periodically inspected for hazard trees. Trees identified as being a possible hazard to forest visitors will be removed by the forest crew. The State Forest maintains 10 Park and Pack camp sites. These camp sites are open year round unless otherwise posted as closed.

### **V. Wildland Fire**

#### *Suppression:*

Within the fire protection area (Holmes, Wayne, Coshocton, Richland, and Ashland counties) Division of Forestry staff may assist upon request to suppress wildland fires on private land. On state forest land, the Division actively suppresses wildfires within the forest.

When requested, support area fire departments in their suppression efforts with equipment, personnel, and planning.

Recent changes in the Ohio Revised Code have created the opportunity for the forest fire protection area to expand and include other areas. The Mohican fire prevention area has expanded. Therefore, staff will assist new departments with their needs relating to wildland fires.

#### *Prevention:*

The Division routinely supports area fire departments and schools with their fire prevention activities. Mohican-Memorial State Forest provides information and educational materials as well as a Smokey Bear costume for fire prevention events.

The Forest maintains the Mohican Fire Tower for its historic character and fire prevention message.

#### *Prescribed Fire:*

In the Discovery Forest, the Division proposes a prescribed fire treatment on 13 acres to promote oak regeneration. This prescribed fire is for demonstration purposes to show visitors the efficacy of prescribed fire in forest management. A map of this proposed prescribed fire is in Appendix B.

*Inter-Agency Fire Crew:*

Mohican staff members will be allowed to participate in the Division's Inter-Agency Fire Crew program as workloads allow.

*Training:*

Training will be offered to employees as workloads and the budget allows. Annual red pack inspections (personal protective clothing and equipment) and fire shelter deployment training will be conducted in late winter before fire season. All employees will attend annual 6-hr interagency wildfire refresher.

*Fire Department Contacts:*

Each year, contacts are made with each of the cooperating fire departments in the Mohican Fire Protection Area to update our fire department information sheets. Further, DOF staff will attend a fire association or fire department meeting in each of the 5 counties in the Mohican Fire Protection Area

*Community Wildfire Risk Reduction:*

Staff will continue to support community wildfire risk reduction through creation and implementation of Community Wildfire Preparedness Plans (CWPPs) and through local fire department outreach and assistance. Prioritization of community wildfire risk reduction activities within the Districts will be directed through the Ohio Wildfire Risk Assessment, specifically targeting areas identified as high and very high risk. Ensuring that all cooperator fire departments are informed and knowledgeable of ODNR Forestry grant opportunities, equipment programs (FEPP / FFP), wildfire prevention/education support, and wildfire reporting protocols is a high priority for ODNR Forestry.

Accomplishing effective community wildfire risk reduction requires close cooperative efforts between ODNR Forestry, local fire departments, and local county EMA officers. ODNR Forestry strives to provide leadership in community wildfire risk reduction and intends to engage these local partners to best serve communities most at risk to wildfire in Ohio.

*FEPP/FFP:*

The Division will continue to complete annual inspections of federal property within our fire protection project.

- 1997 Ford Pickup Truck – West Lafayette Fire Department

The Division will continue to promote the participation of fire departments in the Federal Excess Property Program (FEPP).

*Forest Fire Protection Area Expansion:*

Recent changes in the Ohio Revised Code have created the opportunity for the forest fire protection area to expand and include other areas. Response area responsibilities were also adjusted for efficiency. Under the new area, Mohican forest staff will assist new departments in

Licking, Knox, Richland, Ashland, and Holmes counties in improving their wildfire prevention and response programs. A new position was created to assist in this program delivery.

## **VI. Law Enforcement**

In 2013 forest officers in the Division of Forestry were transferred to the Division of Parks and Recreation (now Parks and Watercraft). Law enforcement on state forests is now provided by natural resource officers and supplemented by wildlife officers. Immediate enforcement issues are reported to the ODNR Communications Center for dispatch. Other issues, including wildfire investigations, are communicated to law enforcement supervisors for assignment.

## **VII. Employee Development**

### *Employee List/Vacancies/Table of Organization:*

Chad Sanders	Forest Manager
Paul Kanagy	Equipment Operator 2

### *Training:*

- All employees will attend the annual refresher training for CPR.
- Employees will be allowed to participate in other safety related training as workloads and the budget allows.
- The Forest Manager will attend the 2 forest management training sessions scheduled.

### *Safety:*

- Monthly safety meeting will be held for all employees.  
Affected employees will attend annual respirator training and fit testing.
- Employees will be provided with one pair of safety toed work boots.  
Inspect and replace as needed employee's hardhats, eye protection, hearing protection, chainsaw chaps and other PPE equipment.
- Employees will be provided with two pairs of work gloves.
- Conduct annual inspection of lock out/tag out toolboxes.

### *Other Employee Development:*

Employees will be allowed to participate in professional development and educational training programs as workloads and the budget allow.

## **VIII. Public Information/Outreach**

### *Partnerships:*

Ohio Federation of Women's Clubs  
U. S. Forest Service  
American Chestnut Foundation  
Columbia Gas Transmission  
Ashland County – West Holmes Career Center  
Ohio State University

Ohio State University Extension Service  
Mohican Chapter of the National Lookout Tower Association  
Mohican State Park  
Boy Scouts of America  
17 Cooperating Fire Departments in Ashland, Coshocton, Holmes, Knox, and Richland Counties  
Mohican Protection Group  
Ohio Department of Agriculture  
Gorman Nature Center  
Ohio Agricultural Research and Development Center  
Energy Cooperative  
Muskingum Water Conservation District

*Volunteers:*

New Volunteer Agreements will be executed with the following volunteer organizations at Mohican-Memorial State Forest as they expire:

Cowboys for Jesus  
Holmes County OHC  
Wayne County OHC  
Mohican Trails Club  
Mohican/Malabar Mountain Bike Club

*Interpretive Programs:*

Interpretive signage and brochures are being developed for the Restoring Native Hardwoods Initiative at the Discovery Forest.

**IX. Budget**

*Operational Budget (personnel, maintenance):*

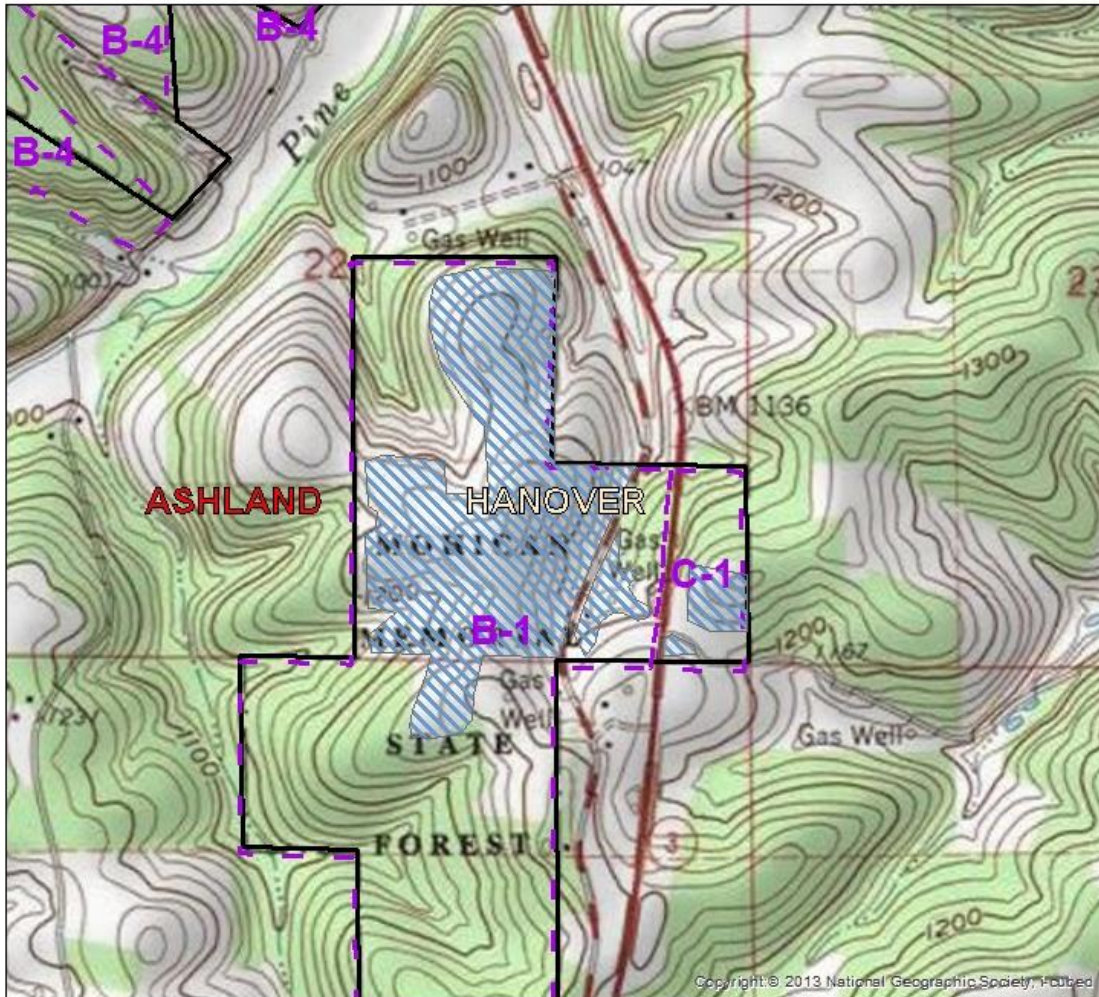
FY 2022 budget dollars are allocated to cover expenses related to the operation of the state forest. Staff regularly purchase supplies, services, and equipment, report on expenditures, and reduce costs whenever possible. Efficiency, effectiveness, and prioritization of purchased goods and services are necessary for proper fiscal responsibility.

**Appendix A: State Forest Map**



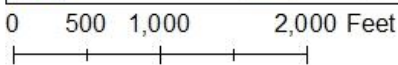
**Appendix B:**

ODNR - Division of Forestry  
 2021-2022 Marking Plan  
 Mohican-Memorial State Forest  
 DRAFT

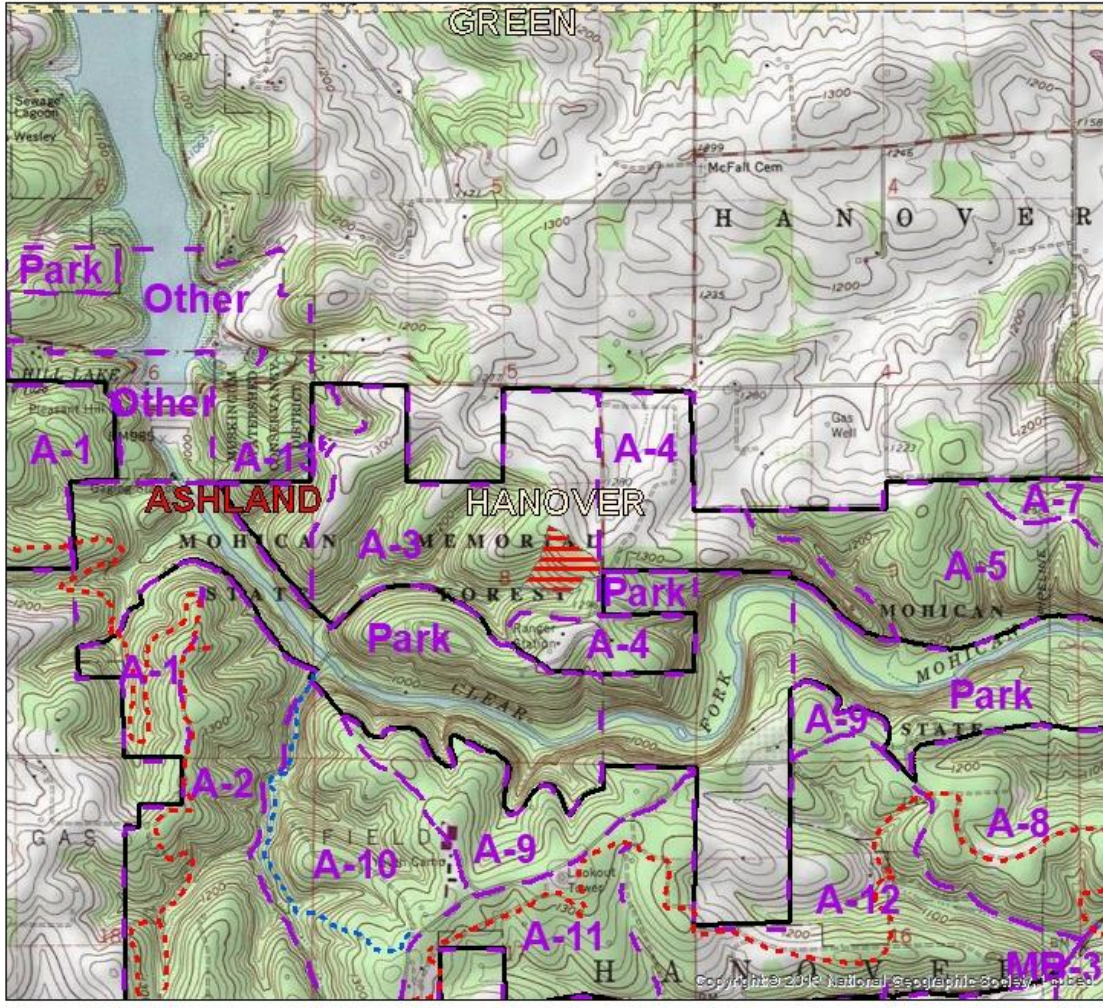


**Legend**

<b>Treatment</b>	Group Openings	Bridle Trail	Compartment
Thinning	Shelterwood Removal	Backpack Trail	Township
Selection	Deferment	APV Trail	County
Selection w Groups	Clearcut	Roads	Forest Boundary
Shelterwood	North Open House 2022		

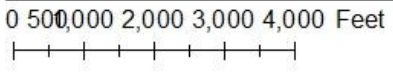


ODNR - Division of Forestry  
 Discovery Forest Planned Rx Fire  
 Mohican-Memorial State Forest  
 DRAFT



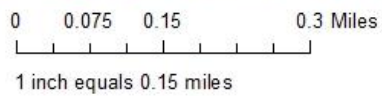
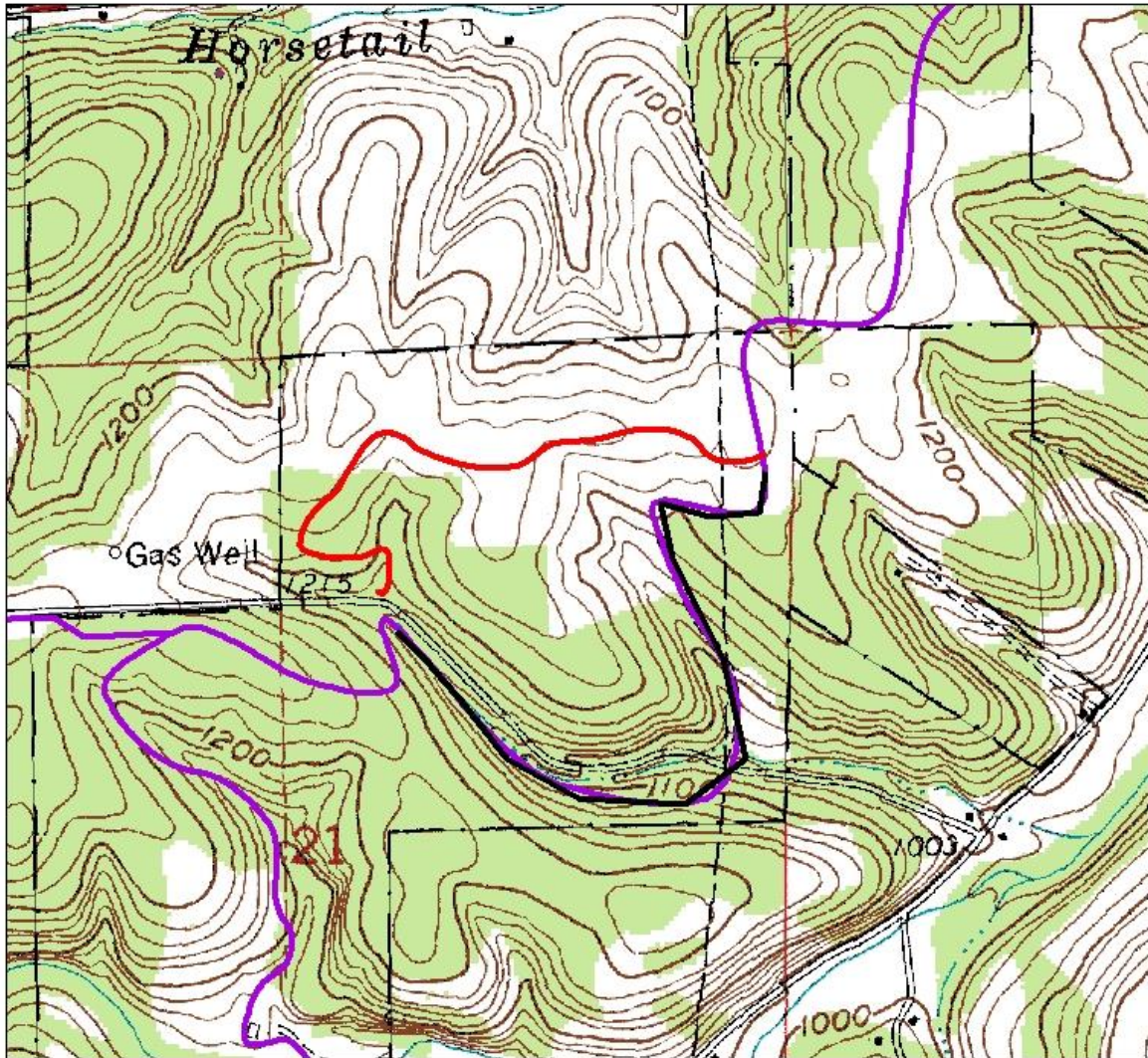
**Legend**

	Burn Unit		Bridle Trail		Compartment
	Backpack Trail		APV Trail		Township
	Roads		County		Forest Boundary





# Appendix C: Proposed Bridle Trail Re-Route

Ohio Department of Natural Resources  
Division of Forestry  
Bridle Trail Re-Route in RED



## Legend

-  State Forest Boundary
-  Forestry.FORESTRY\_CREATOR.state\_forest\_trails

