EASTERN REGION STATE FOREST LANDS ANNUAL WORK PLAN

FISCAL YEAR 2024



Reviewed:

Approved:

(Forest Manager)

(Regional Manager)

(Environmental Specialist)

 $\frac{1}{23}$ Date $\frac{5/1/2023}{Date}$

Prepared By:

Michael G. Schofield, MFS – Chesapeake Forest & Pocomoke State Forest Manager

Alexander S. Clark, MFS – Assistant Forest Manager

Contributors:

Skip Jones, Parker Forestry Services Inc.

DNR Interdisciplinary Team

Citizens Advisory Committee

CONTENTS

A. Forest Overview	4
Chesapeake Forest and Pocomoke State Forest	
Historic Forest Conditions and the Role of Fire	
Forest Types and Size Classes	
Desired Future Conditions	
Forest Management Zones	
Chesapeake Forest & Pocomoke State Forest Management Zones	
Unique Community Types	
Soils	12
B. Annual Work Plan Summary	12
Introduction	12
Networking with DNR and other agencies	13
C. Maintenance Projects	1/
D. Recreation Projects	14
E. Special Projects	15
F. Watershed Improvement Projects	15
G. Special Wildlife Habitat Projects	15
H. Ecosystem Restoration Projects	15
I. Monitoring Projects	15
J. Review Process	16
Interdisciplinary Team Comments	16
Citizen's Advisory Committee Comments	17
Public Comments	19
K. Silvicultural Projects	
Silvicultural Activity Overview	
Definitions of Silvicultural Activities	
Silvicultural Prescriptions & Stand Data	
Caroline County	
Dorchester County	
Somerset County	
Wicomico County	
Worcester County Pocomoke State Forest	
Silvicultural Site Maps	
L. Budget	
Appendix A – Soil Series Management Groups, Abbreviations, and Symbols	07
Chesapeake Forest/Pocomoke State Forest: Soil Management Groups	
Appendix B – Audit Summary – 2022	
Works Cited	101

A. FOREST OVERVIEW

CHESAPEAKE FOREST AND POCOMOKE STATE FOREST

The Chesapeake Forest which is owned by the State of Maryland and managed by the Maryland Forest Service through the Department of Natural Resources originally consisted of 58,000 acres of forest land. These lands were part of a 1999 divestment by the Chesapeake Forest Products Corporation. At that time, a partnership between the State of Maryland, The Conservation Fund, and Hancock Timber Resources Group moved to purchase the forests. The original 1999 plan was prepared by a 10-person technical team assembled by The Sampson Group, Inc. Oversight and decision making for the technical team was provided by a Steering Committee composed of representatives from Maryland Department of Natural Resources, The Conservation Fund, the Chesapeake Bay Foundation, and the local forest industry.

The Chesapeake Forest currently consists of 75,955 acres divided into 186 Management Units distributed across six counties. Chesapeake Forest also includes the Seth Demonstration Forest in Talbot County, Wicomico Demonstration Forest in Wicomico County, and Fred W. Besley Demonstration Forest in Dorchester County. In spite of this scattered character, the forests include some of the last large segments of unbroken forest in a region that is largely agricultural in nature. Chesapeake Forest Lands include more than 6,000 acres of wetlands or swamps and comprise portions of 23 separate watersheds, many of which have been given a high priority for conservation action under the Maryland Clean Water Action Plan. They contain established populations of threatened and endangered species, including the Delmarva fox squirrel (*Sciurus niger cinereus*), bald eagle, and some 150 other species that have been identified as rare, threatened, or endangered in the region. Abundant populations of deer, turkey, and waterfowl create the basis for extensive hunting opportunities and other recreational activities on the land.

The 18,492-acre Pocomoke State Forest is almost entirely contained within Worcester County, except for 388 acres in Somerset County and 154 acres in Wicomico County. The Chesapeake Forest has 19,978 acres within Worcester County, and several tracts from both Chesapeake Forest and Pocomoke State Forest adjoin each other offering greater habitat and recreational management opportunities. In addition, since both forests contain similar forest types, many of the same management guidelines and principles are used. There are differences between the two forests, however. Pocomoke State Forest contains many older tracts of forestland still in their natural state, nearly 5,000 acres of cypress and hardwood forest that borders a state scenic river, and areas of state designated Wildlands.

For additional information about Chesapeake Forest and Pocomoke State Forest please visit their respective web pages located at: http://dnr.maryland.gov/forests/Pages/mdforests.aspx.

HISTORIC FOREST CONDITIONS AND THE ROLE OF FIRE

The average pre-European-settlement fire frequency was on the order of 7-12 years for forests of the Eastern Shore of Maryland, with higher frequencies of 4-6 years in the southeastern Maryland counties of Wicomico, Worcester, Somerset, and Dorchester (Frost, 1998). These frequencies are high compared to most areas of the Northeast. Since it is unlikely that lightning was a significant contributor to these fires, Native American populations must have been. A conclusion is that fire in the Northeast was predominantly a phenomenon associated with human activity (Pyne, 1982). The forest that covered the Eastern Shore in pre-colonial times was primarily a hardwood one, though increasingly mixed with pine to the southward (Rountree & Davidson, 1997). The large patches of pine-dominated woods today are largely second growth, the result of extensive clearing in historic times. In aboriginal times, the woods of the Eastern Shore were likely to be oak-hickory, oak-gum, or oak-pine types, all of which still exist in second-growth form.

Captain John Smith said in the early seventeenth century, "A man may gallop a horse amongst these woods any waie, but where the creekes or Rivers shall hinder". Father Andrew White wrote that the woods around St. Mary's were so free of underbrush that a "coach and fower horses" could be driven through them (Rountree & Davidson, 1997). The open conditions could be partly attributed to the closed canopies of these mature forests, which shaded out undergrowth, but it is also likely that periodic fire helped to maintain the park-like conditions.

It is reasonable to assume that Eastern Shore tribes also used fire to periodically burn the marshes that were important sources of mollusks, fish, furbearers, waterfowl, edible tubers, and reeds for housing. Fire would have been useful for herding game, enhancing visibility or access, or retarding invasion of woody growth. More often than not, these fires would have spread into adjacent woodlands and, if of sufficient intensity, created the open seedbed conditions conducive to establishment of loblolly pine. Even today the pattern of loblolly pine "islands" and "stringers" in and adjacent to marshes of the lower Eastern Shore is common.

If, as Rountree and Davidson suggest, oaks were the most prevalent species in pre-settlement times, then the possible role of fire in maintaining these forest types must also be considered. Frost stated, "Light, understory fires may have been the norm for millions of hectares of eastern hardwood forest..." (Frost, 1998). Oak species range from slightly tolerant to intolerant of shade, indicating that disturbance is desirable to promote regeneration and growth. Furthermore, acorn germination and initial seedling establishment are most successful where light understory burns have scarified the seedbed and reduced competition (Burns & Honkala, 1990). The extensive presence of oaks on the Shore was an indicator that low-intensity understory fires were common, either intentionally set by Native Americans to create "open woods" or drive game, or the incidental result of land-clearing.

Natural stands of loblolly pine (*Pinus taeda*) became much more widespread around the turn of the 20th Century, particularly in the counties south of the Choptank River, largely due to the influence of economic factors. First was the abandonment of agricultural fields as farmers moved to more lucrative jobs in the towns and cities. Loblolly pine is an opportunistic species, which found the recently abandoned fields prime sites for reproduction by natural seeding. The second factor was the rise of large-scale commercial lumbering. Steam locomotives, often used to haul logs from the woods, were notorious for throwing sparks along the tracks and starting fires. Both the clearing of the forests by large-scale logging and the subsequent fires resulted in large areas of open, scarified land suitable for pine regeneration. By the middle of the twentieth century, loblolly pine had become the predominant forest cover type in the lower counties of the Eastern Shore.

FOREST TYPES AND SIZE CLASSES

Young loblolly pine forests mostly established since the early 1980's are what characterize a high proportion of the Chesapeake Forest. Mixed pine and hardwood forests still occupy some of the lands, and many riparian areas and flood plains contain stands of mixed hardwoods. In general, the mixed pine-hardwood and hardwood stands are older, mature forests.

Mature mixed pine-hardwood, bottomland hardwood, and bald-cypress forests comprise the majority of the Pocomoke State Forest. In general, the mixed pine-hardwood, hardwood, and bald cypress stands are older, mature forests, while loblolly pine stands are more evenly distributed across all age classes.

Table 1 provides a habitat diversity matrix of both Eastern Region State Forests that provides a current baseline from which future changes in age structure or forest type diversity can be assessed for potential habitat or biodiversity effects.

Table 1. Forest Diversity Analysis

Acres of forest type and forest structure by structural groups, with percent of total area in each forest type/structure group combination.

	Structure Stage							
Forest type	Open	Sapling	Growing	Maturing	Mature	Big Trees	Uneven	Total Area
	0 - 5 yrs	6 - 15 yrs	16 - 25 yrs	26 - 50 yrs	51 - 90 yrs	91+ yrs	Aged	Alca
Loblolly Pine	278	1,714	9,801	40,201	6,803	358	291	59,446
(Percent)	0.29%	1.82%	10.38%	42.56%	7.20%	0.38%	0.31%	62.94%
Shortleaf Pine	0	12	0	12	227	109	17	378
(Percent)	0.00%	0.01%	0.00%	0.01%	0.24%	0.12%	0.02%	0.40%
Mixed Pine (Pond, Pitch, Virginia, etc.)	0	20	0	0	15	87	75	198
(Percent)	0.00%	0.02%	0.00%	0.00%	0.02%	0.09%	0.08%	0.21%
Atlantic White Cedar	0	8	3	0	0	0	0	12
(Percent)	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%
Mixed Pine/Hardwood	43	966	1,342	2,829	5,988	4,108	187	15,462
(Percent)	0.05%	1.02%	1.42%	3.00%	6.34%	4.35%	0.20%	16.37%
Bottomland/Mixed Hardwoods	0	169	364	523	6,009	3,762	6	10,834
(Percent)	0.00%	0.18%	0.39%	0.55%	6.36%	3.98%	0.01%	11.47%
Bottomland Hardwoods/Bald Cypress	0	0	0	0	18	3,842	0	3,860
(Percent)	0.00%	0.00%	0.00%	0.00%	0.02%	4.07%	0.00%	4.09%
Cut/Marsh/Field/ Powerline/Road	4,257	0	0	0	0	0	0	4,257
(Percent)	4.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.51%
Total	4,578	2,891	11,510	43,566	19,059	12,267	576	94,446
(Percent)	4.85%	3.06%	12.19%	46.13%	20.18%	12.99%	0.61%	100.00%

DESIRED FUTURE CONDITIONS

The desired future conditions of Chesapeake Forest and Pocomoke State Forest reflect a transition between the former industrial forest management and the future multiple-purpose management under State ownership. Some of the changes between the former forests and the future forests will be subtle, and many will take decades to emerge.

Some of the changes that will occur over time include:

- Maintenance or enhancement of water quality
- Protection of natural resources, including biological diversity
- Contribution to the local resource-based economy
- Providing opportunities for appropriate low-impact, resource-based public use
- Widening of Riparian Forest and Wetland Buffers to protect and enhance water quality, as well as provide mature forest habitat for species that need such conditions;
- More mixed hardwoods and hardwood/pine forests associated with the buffers, in which timber harvesting maintains a mature forest stand after it is achieved;
- Longer pine plantation rotations, particularly in areas where wildlife habitat relies on large pine trees. These will be harvested, but at older, larger sizes, which has implications for the future timber industry on the Shore.
- Less intensive methods of forest regeneration, including the use of natural pine regeneration whenever and wherever it can succeed. This has been shown to result in somewhat slower tree growth for the first 2-4 years compared to the more intensive methods of soil preparation and planted seedlings, but those early differences disappear later in the rotation. As a result, when forests are being managed for longer rotations, the less intensive regeneration methods should not result in a loss of productivity. They do, however, reduce up-front costs significantly as well as produce less soil and site disturbance.

Changes that may take years to emerge and may be almost imperceptible for a long time include:

- The planned shift to longer rotations for additional saw logs will emerge slowly as today's young stands reach larger sizes. The emphasis on thinning will produce significant amounts of pulpwood and forest-based jobs.
- The development of riparian forest buffers in areas now planted to young pine plantations will take time. These areas must grow into buffers, so for the near future, there may be more pine pulpwood produced from buffer zones than from outside them, as additional pines are removed to create openings for hardwoods.
- Measurable improvements in stream water quality may come slowly. Much of the water flowing across these forests comes from agricultural and developed areas. Efforts will be made to create areas that can trap nutrients, but the measured progress is likely to be slow to emerge.
- Major impacts on the wildlife habitat depending on large trees will not occur until today's young forests have time to grow. Improved Delmarva fox squirrel habitat will emerge rapidly after about 20 years, but not before.
- Changing recreational patterns will require time for the Department to assess all the tracts, assure public safety and landowner relationships. Some of this assessment has already occurred and Public Use of several tracts has been implemented.

FOREST MANAGEMENT ZONES

Due to the large size and diverse landscape of the lands in this project, the planning team identified specific areas based on physical attributes that need to dominate future management decisions. The following are brief descriptions of the management zones. Additional information of each management zone type can be found in the Sustainable Forest Management Plan.

GENERAL FOREST MANAGEMENT AREAS

General Forest Management areas are those sites unconstrained by other more demanding management restrictions. It is important to note that production of forest products in no way precludes the contribution from these lands to other forest functions such as recreation, habitat, and water quality. In the general management

areas, the loblolly pine forest will be managed on a 30-40 year rotation for a mixture of saw logs and pulpwood. In the early years of implementing this plan, it may be necessary to harvest some younger stands, as this is the only way to re-distribute stand ages so that the current preponderance of 5-25 year-old stands does not become a recurring problem in future management rotations.

Loblolly pine forest within the general management areas will be managed to produce a rapidly growing, vigorous and healthy forest while supporting local natural resource based industries and at the same time protecting water quality through adherence to Best Management Practices. In this forest type, wildlife habitat will be early and mid-succession habitat that provides structural diversity within the array of mixed forest stands and riparian, wetland, and wildlife buffers.

ECOLOGICALLY SIGNIFICANT AREAS (ESA)

Sites containing rare plant and or animal communities will be identified and managed for their special qualities. The DNR Wildlife & Heritage Service will be involved in assuring that special sites are properly inventoried, marked, and managed, and that adequate records are created and maintained for each site. Specific prescriptive management recommendations have been developed for each site by the Heritage Division.

Portions of a number of the ESA management areas overlap DFS, FIDS and the Riparian areas, however, management prescriptions will focus on enhancing and protecting the designated ESA. Each ESA area has been broken down into as many as three zones with specific management prescriptions for each zone.

FORESTED RIPARIAN BUFFERS

Minimum three hundred foot (300 ft.) riparian forest buffers or wetland buffers will be marked, established and maintained according to the guidelines listed in. All management activities within these areas will be designed to protect or improve their ecological functions in protecting or enhancing water quality. The long-term goal is to achieve and maintain a mature mixed forest stand. Where the current forest is a pine plantation, the shaping of the riparian forest buffers will generally commence at the time of the first silvicultural activity on the adjoining stands. Management will generally focus on thinning pines to encourage hardwood growth, marking boundaries so that field personnel and contractors can conduct operations properly, and closely monitoring activities to prevent soil disruption or damage and protect stream bank and wetland integrity. In these areas where young pine plantations currently exist, the desired forest conditions may take several decades (and appropriate treatments) to emerge.

DELMARVA FOX SQUIRREL (DFS) HABITAT

DFS Core Areas are defined as a complex of Chesapeake Forest Lands currently occupied by Delmarva Fox Squirrels. DFS Future Core areas are defined as a complex of Chesapeake Forest and Pocomoke State Forest lands where location, vegetative composition and structure appear suitable for translocation of DFS.

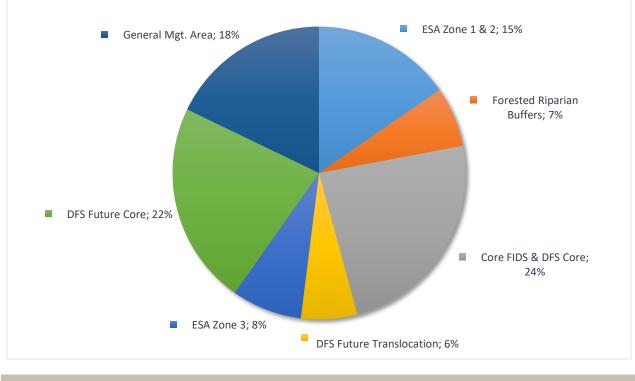
In all designated DFS management areas, the forest will be managed on longer rotations while encouraging an additional hardwood component in the over story. The goal is to grow an older forest with larger mature trees that are held on the landscape for a longer period of time. This will be accomplished through a regiment of precommercial and commercial thinning operations to increase growth rates of the residual trees. Thinning operations will favor retaining larger diameter trees including hardwood mast trees. A minimum basal area of 70 to 80 sq. ft. per acre will be retained in order to maintain adequate canopy closure. The plan requires that DFS Core management areas at any point in time must retain 50% of the forest in "suitable DFS habitat", which is defined as stands that are 40 years old. The individual stands designated as suitable DFS habitat will be retained on the landscape for 20 years, setting a requirement for a minimum rotation length of 60 years.

FOREST INTERIOR DWELLING SPECIES (FIDS) HABITAT

In the designated Core FIDS areas, the goal is to improve the stocking of hardwood species so as thinning operations occur, basal areas will not to fall below 70 square feet per acre. Long rotation ages greater than 100 years will be the goal and the preferred harvest method will be singletree selection. Mixed stands of pine and hardwoods will be encouraged, and the use of herbicides will be avoided except to control invasive species and for research.

CHESAPEAKE FOREST & POCOMOKE STATE FOREST MANAGEMENT ZONES

The following graph depicts the percentage of acres in each forest management zone for both Eastern Region forests.



UNIQUE COMMUNITY TYPES

INLAND SAND DUNE AND RIDGE WOODLANDS

This natural community occurs on dry, sandy dunes and ridges of the coastal plain. These landforms developed during the late Pleistocene when colder climate processes associated with Wisconsin glaciation influenced much of the region. At the time, prevailing northwest winds transported surficial sands across the Delmarva and deposited them on the east sides of the Nanticoke, Wicomico, and Pocomoke rivers and formed "dune fields" on uplands in

the central part of the peninsula. Today, these landforms support woodland vegetation of pine and oak, as well as a variety of rare and threatened plant and animal species. Currently, there are two globally rare natural community types associated with inland sand dunes and ridges. One characterized by shortleaf pine (*Pinus echinata*) and another dominated by a mixture of hardwoods such as white oak (*Quercus alba*), black oak (*Quercus velutina*), and southern red oak (*Quercus falcata*). Both community types share many common associates such as Pitch pine (*Pinus rigida*), post oak (*Quercus stellata*), sand hickory (*Carya pallida*), and a variety of ericaceous shrubs. In general, the herbaceous layer is sparse and consists primarily of light-demanding species tolerant of dry, sandy conditions. Examples of these species include yellow false indigo (*Baptisia tinctoria*) and the State threatened sundial lupine (*Lupinus perennis*). Frequent low-intensity fire is important in maintaining these natural communities and the distribution of species that depend upon them.

NON-RIVERINE SWAMPS

This natural community includes seasonally flooded "flatwoods" and depressions of the coastal plain. These habitats develop on flat, ancient estuarine terraces and shallow depressions with seasonally perched water tables. This results in standing water throughout the early part of the growing season followed by a period of drawdown. Hydroperiods are variable between swamps and largely dependent on rainfall and drought cycles. The forested canopy structure of flatwoods and depression swamps range from open to closed with composition ranging from hardwood dominated to a mixtures of hardwoods and pines. Swamps dominated by oak species such as willow oak *(Quercus phellos),* pin oak *(Quercus palustris),* swamp chestnut oak *(Quercus michauxii),* and cherrybark oak *(Quercus pagoda)* are considered highly rare because most have been logged and subsequently invaded by successional hardwoods such as red maple *(Acer rubrum),* sweetgum *(Liquidambar styraciflua),* and black gum *(Nyssa sylvatica).* Pond pine (*Pinus serotina*) and loblolly pine (*Pinus taeda)* are prominent components of many flatwoods on the lower Coastal Plain. Nonriverine Swamps have been greatly reduced in Maryland through ditching, draining, logging, and conversion to agriculture.

ATLANTIC WHITE CEDAR SWAMPS

Atlantic white cedar (*Chamaecyparis thyoides*) swamps occur discontinuously along the Nanticoke, Wicomico, and Pocomoke Rivers. They are best developed above regular tidal influence between tidal swamp forests and sandy uplands where groundwater discharge and the accumulation peat over time provide favorable growing conditions. A few examples have also been documented from seasonally saturated to flooded basin wetlands associated with ancient estuarine terraces in the Pocomoke River watershed. Atlantic white cedar (*Chamaecyparis thyoides*), swamp tupelo (*Nyssa biflora*), pond pine (*Pinus serotina*), and sweetbay magnolia (*Magnolia virginiana*) often comprise the tree canopy. In the understory, shrubs and vines are common but variable, often including an abundance of common greenbrier (*Smilax rotundifolia*). The herbaceous layer is often sparse and may include species of sedges, manna-grasses, and rushes. Slightly elevated hummocks of sphagnum mosses (*Sphagnum* spp.) frequently form large patches. The extent of Atlantic white cedar has been greatly reduced over the past 200 years by logging. Today, remaining stands exist as patches representing only a fraction of historical estimates. All natural community types classified as Atlantic white cedar swamps are considered globally and state rare.

DELMARVA BAYS

Delmarva Bays are seasonally flooded wetland depressions on Maryland's coastal plain. They developed from ancient interdunal depressions approximately 16,000 years ago when the climate of the Coastal Plain was very cold and windy and supported an extensive sand dune ecosystem. The majority of Delmarva Bays have been shaped by

these wind and erosional processes into circular depressions up to one meter in depth with prominent sand rims. A perched water table and seasonal fluctuations in groundwater recharge and precipitation cause these wetlands to be irregularly flooded or seasonally inundated. During very dry seasons, surface water may be absent or limited to the deepest point within the bay. Likewise, during very wet years when rainfall is abundant, bays may retain water throughout the entire growing season. Depth and duration of seasonal inundation are apparently the most important factors influencing plant communities and the degree to which woody species become established. Dry-season fires in adjacent uplands may spread into Bays and may be another factor limiting the invasion of woody species, although fire frequencies throughout the region have been much reduced in recent decades. The vegetation of Delmarva Bays is closely linked to its hydrologic regime. As water levels draw down or recede during the growing season, plant communities typically develop concentric rings from the outer edge towards the center or deepest point in the bay. Outer rings of a bay may include shrubs of buttonbush (Cephalanthus occidentalis), fetterbush (Leucothoe racemosa), swamp loosestrife (Lysimachia terrestris), and sweet pepper-bush (Clethra alnifolia) or nearly monospecific stands of Walter's sedge (Carex striata), maidencane (Panicum hemitomon), and Virginia chain fern (Woodwardia virginica). Interior portions of Bays may include species such as Eaton's panicgrass (Dichanthelium spretum), warty panicgrass (Panicum verrucosum), and Virginia meadow-beauty (Rhexia virginica). Many of these species grade into the "draw down pocket" or lowest portion of a bay, which is the last to desiccate during the growing season. Common to this zone are slender fimbry (Fimbristylis autumnalis) and flood tolerant shrubs like buttonbush (Cephalanthus occidentalis). Many plants and animals considered rare in Maryland are known to occur in Delmarva Bays. Delmarva bays and their associated life zones have their own ESA designations identified and mapped.

BALD CYPRESS SWAMPS

Bald cypress swamps are forested wetlands that contain bald cypress (*Taxodium distichum*) as a dominant species in the canopy. In addition to bald cypress, swamp tupelo (*Nyssa biflora*) and pumpkin ash (*Fraxinus profunda*) are also characteristic in the canopy. Bald cypress swamps occur in the tidal and upper non-tidal reaches of the Pocomoke River in Maryland. These habitats are mostly freshwater and are periodically flooded by lunar tides. Stands are found in low floodplains, forming a corridor between open tidal marsh and non-tidal habitats. Due to flooding, these stands typically contain hummocks and hollows where the hollows are frequently flooded and hummocks are occasionally flooded. Due to the "drier" nature of the hummocks, they often support a diversity of woody and herbaceous species.

VERNAL POOLS

Vernal pools are small (~0.1-2 ha), non-tidal palustrine forested wetlands. They exhibit a well-defined, discrete basin and lack a permanent, above-ground outlet. The basin overlies a clay hardpan or some other impermeable soil or rock layer that impedes drainage. As the water table rises in fall and winter, the basin fills forming a shallow pool. By spring, the pool typically reaches maximum depth (~0.5-2.5 m) following snowmelt and the onset of spring rains. By mid- to late summer, the pool usually dries up completely, although some surface water may persist in relatively deep basins, especially in years with above average precipitation. This periodic seasonal drying prevents fish populations from becoming established, an important biotic feature of vernal pools. Many species have evolved to use these temporary, fish-free wetlands. Some are obligate vernal pool species, so-called because they require a vernal pool to complete all or part of their life cycle. vernal pools occur throughout the state as scattered, isolated habitats. They are most numerous on the lower coastal plain, especially on the mid to upper eastern shore, and uncommon west of the fall line. They are typically situated in low areas or depressions in a forest, but they can also occur in floodplain forests as isolated floodwaters, among backwaters of old beaver

impoundments, old sinkholes, or as perched spring- or seep-fed basins along mountain slope benches, or at the base of slopes. vernal pools may persist in cleared areas such as cropland, pastures, and clearcuts, but usually in a highly degraded ecological state. Because vernal pools occur throughout the state in a variety of forest types and settings, the vegetation in and around these habitats varies considerably. However, many vernal pools exhibit similar vegetative structure. For example, pools tend to have a semi-open to closed forest canopy around them and the degree of canopy closure generally decreases with increasing pool size. The basin substrate consists of dense mats of submerged leaf litter and scattered, coarse woody debris. Herbaceous vegetation is usually absent to sparse in and around the basin, although small mossy patches frequently occur along the basin edge. A dense shrub layer may occur along the shoreline or in small patches within the basin, especially on the coastal plain, but many pools also lack a well-developed shrub layer.

SOILS

The region features flat topography, near-sea level elevations, and poorly drained soils. Soils are naturally low in fertility, but soil erosion and sediment runoff for forestry activities is seldom a problem, given reasonable management care. Seasonally wet conditions affect the timing and type of forest management activities. For management activities on the Forest, the soils in the region were classified into 5 Soil Management Groups (SMG), based on soil characteristics. See Appendix A for a listing of soil types by soil management group and a listing by county of symbols used by soil survey reports.

The Five (5) Groups (SMG's) were defined as follows:

- SMG 1 wet soils with firm sub-soils that can physically support machines when wet.
- SMG 2 wet soils with non-firm sub-soils that cannot support machines when wet.
- SMG 3 soils that are less wet than either 1 or 2; highly productive forest sites.
- SMG 4 very sandy, often dry soils that are generally not highly productive forest sites.
- SMG 5 very wet, low-lying soils that are too wet for forestry operations.

To facilitate plan development and future management, digital soils data was utilized from the USDA Natural Resources Conservation Service for, Caroline, Dorchester, Somerset, Talbot, Wicomico, and Worcester Counties.

B. ANNUAL WORK PLAN SUMMARY

INTRODUCTION

This section summarizes the proposed activities that will occur on all public forest lands (94,145 acres) managed by the Maryland Forest Service within the Eastern Region during the 2022 fiscal year. These lands include the Chesapeake Forest, Pocomoke State Forest, Wicomico Demonstration Forest, Seth Demonstration Forest, and Fred W. Besley Demonstration Forest. Fiscal Year 2023 runs from July 1, 2022 to June 30, 2023. The following proposed activities are the results of a multi-agency effort. The multi-agency approach has ensured that all aspects of these lands have been addressed within the development of this plan.

All projects and proposals within this Plan have been developed to meet one or more of the Land Management Guidelines and Objectives as seen in the Chesapeake Forest and Pocomoke State Forest Sustainable Forest Management Plans including:

- **Forest Economy** management activities with a purpose to maintain an economically sustainable forest and contribute to the local economy through providing forest-related employment and products.
- Forest Conservation management activities with a purpose to protect significant or unique natural communities and elements of biological diversity, including Ecologically Significant Areas, High Conservation Value Forests and old growth Forests. Old growth forest management serves to restore and/or enhance old growth forest structure and function.
- Water Quality management activities designed to protect or improve ecological functions in protecting or enhancing water quality.
- Wildlife Habitat management activities with a purpose to maintain and enhance the ecological needs of the diversity of wildlife species and habitat types.
- **Recreation and Cultural Heritage** management activities with a purpose to maintain and enhance areas that serve as visual, public camping, designated trails, and other high public use areas.

NETWORKING WITH DNR AND OTHER AGENCIES

MARYLAND DNR AGENCIES:

- Wildlife & Heritage Identify and develop restoration projects, report and map potential Ecological Significant Areas (ESA) as found during fieldwork, release programs for game and non-game species. Mapping will be done with Global Positioning Systems (GPS). Participates on the Inter-Disciplinary Team (ID Team) and assists in the development of a forest monitoring program.
- Natural Resource Police Enforcement of natural resource laws on the forest.
- Land Acquisition & Planning Provides assistance in the development of plans, facilitates meetings with various management groups, develops Geographic Information System (GIS) maps for public review, and conducts deed research and boundary recovery. Also participates on the ID Team.
- Maryland Conservation Corps (MCC) Assists in painting boundary lines, installing gates and trash removal.
- State Forest & Park Service Participates on the ID Team.
- Chesapeake & Coastal Service Develops watershed improvement projects, assists in the development of a forest monitoring programs and participates on the ID Team.

OTHER AGENCIES:

- DNR Contract Manager Assists the Forest Manager in the designs and implementation of management activities on the donated portion of the forest. Also participates on the ID Team.
- Third party forest certification via annual audits
- The Chesapeake Bay Foundation Identifies sites for future water quality improvement projects and assists in the implementation by providing volunteers for reforestation.
- National Wild Turkey Federation Establishes and maintains handicap-hunting opportunities within the forest and provides funding for habitat protection and restoration.
- US Fish & Wildlife Service Assists in prescribed burns for Delmarva Fox Squirrel (DFS) habitat. Also
 assists in maintaining open forest road conditions as fire breaks.
- Maryland Forest Association Master Loggers Program provides training in Advanced Best Management Practices for Forest Product Operators (i.e. Foresters & Loggers) workshops on the forest.
- Network with Universities and Colleges

- Maryland Environmental Lab, Horn Point Conducts water quality monitoring on a first order stream not influenced by agriculture. These samples will serve as a local base line for other samples taken on other Delmarva streams.
- Allegany College Conduct annual field tour for forestry school student's showcasing Sustainable
 Forest Management practices on the forest under dual third party certification.

C. MAINTENANCE PROJECTS

Forest roads will undergo general maintenance to maintain access for forest management activities (i.e. logging, prescribed burning, and wildfire control). Interior roads within each complex will be brush hogged where possible by the MFS & the WHS. Many of the roads have grown shut and require special heavy equipment to remove the larger trees. Brushing of these roads will improve access for the public and help maintain firebreaks for communities at risk from wildfire. Recreational trails will be mowed and cleared to meet the requirements of the specific user group(s). Engineering and Construction projects such as bridge and culvert replacements will be prioritized based on need and condition.

Forest boundary lines will be maintained using the DNR yellow band markings. Signs will be placed along the boundary lines designating the type of public access to the property. New acquisitions will be converted from their previous ownership markings to the DNR yellow band markings.

Illegal trash dumps will continue to be removed off the forest as they are discovered. The average amount of trash removed from the forest each year has been 36 tons. In our efforts to control and eradicate this issue, we will continue to coordinate with Natural Resources Police (NRP), local sheriff departments, the State Highway Administration, and County Roads departments.

D. RECREATION PROJECTS

- Host the annual Chesapeake Forest lottery for vacant tracts designated for hunt club access only. Vacant tracts are those that existing clubs opted not to continue to lease or land that has recently become available due to acquisitions or right-of-ways being opened.
- Progress on the Corker's Creek bridge project (elevated boardwalk and bridge to connect Pocomoke River State Park – Shad Landing to Pocomoke State Forest)
- Continue to move forward in the process to establish a trail from the town of Snow Hill to Shad Landing through the Pocomoke State Forest Wildlands. With the successful passage of HB882 in the 2022 Legislative Session, which designated a trail corridor through the Pocomoke Wildlands to establish a new trail, Forest Service staff will be working with Engineering and Construction to design the trail specifications during the current AWP cycle. Updates pertaining to bidding and construction of the trail will follow in subsequent AWPs.
- Host the Annual Ultra-Marathon "Algonquin 50K" race on Chesapeake Forest and Pocomoke State Forest.
- Host the Fat Tire Bike event with the Eastern Shore IMBA on Chesapeake Forest and Pocomoke State Forest.
- Continue to explore additional Resource Based Recreational (RBR) opportunities on the forest. This may
 include hunting, horseback riding; water trails, hiking trails, bird watching opportunities, geocaching, etc.
- Continue work on active Recreational Trails Grants
 - Algonquin Cross County Trail Extension and Loop Trails
 - Pusey Branch Trail Extension and Enhancement Project

- Summerfield Trails
- Perform general maintenance on the existing trail system

E. SPECIAL PROJECTS

- Maintain dual forest certification. Summaries of the previous year's audit findings can be found in Appendix B.
- Conduct information and educational opportunities on the forest.
- Update and maintain forest information in a GIS database, which will result in a new updated forest wide field map.
- Continue the effort to inventory and protect historic sites (i.e. cemeteries, old home sites, Native American Indian sites) using GPS and GIS technology.
- Collect native genotype pond pine (*Pinus serotina*) and short-leaf pine (*Pinus echinata*) on the forest in an
 effort to aid future management objectives on the Pocomoke and Chesapeake Forests.
- Provide assistance to the State Tree Nursery with maintenance of Seed Orchards on the Pocomoke State Forest.

F. WATERSHED IMPROVEMENT PROJECTS

- Work continues on the Indiantown/Brookview Ponds watershed improvement project from the FY2013 AWP. Currently the project is in Phase IV, which deals with restoring the natural hydrology of the site through the use of ditch plugs.
- Monitoring of hydrologic, terrain, and vegetation conditions on the Foster Estate pond restoration continues. Response to invasive species, primarily Phragmites, will be taken as needed.

G. SPECIAL WILDLIFE HABITAT PROJECTS

- Initial site review and selection for possible quail management and habitat restoration.
- Planning and execution of the early successional habitat project on the Foster tract with prescribed burning and targeted herbicide applications continues.
- Continued collaboration with the bobwhite quail habitat improvement public/private partnership project

H. ECOSYSTEM RESTORATION PROJECTS

Various ecosystem restoration projects continue to proceed, including the Brookview Ponds ESA restoration and the Furnace Tract Xeric Habitat Treatment and Monitoring Plan. In general, site preparation of high priority ESA sites and prescribed burning was performed when and where possible.

I. MONITORING PROJECTS

- Maryland Wood Duck Initiative D03 Little Blackwater Cliff Brown
- Lupine and Frosted Elfin Furnace Tract WHS Jennifer Selfridge
- Bat Study Bats and Prescribed Burning WHS Dana Limpert
- Delmarva Fox Squirrel Hunt Club Monitoring Project USF&WS Cherry Keller
- Trail Monitoring Recreation Trail Grant trail counters

- Maryland Biological Stream Survey Stream Sampling on Pocomoke State Forest DNR Resource Assessment Service – Matt Ashton
- Water quality monitoring project at Hickory Point USGS Wetland and Aquatic Research Center Dr. Beth Middleton

J. REVIEW PROCESS

INTERDISCIPLINARY TEAM COMMENTS

• Natural Heritage Program comments integrated into the individual site prescriptions.

2024 Chesapeake/Pocomoke Forest Reviews from Freshwater Fisheries Staff

Freshwater Fisheries is providing additional comments on some of the proposed FY2024 Chesapeake/Pocomoke Forest work:

- CF24-01- Area to be thinned included areas within the 50'-300' buffer. All steps available should be taken to minimize ground disturbance and soil transport off site. The area mapped also includes area within the 50' no cut buffer. Those areas should be excluded.
- CF24-02- Area to be thinned included areas within the 50'-300' buffer. All steps available should be taken to minimize ground disturbance and soil transport off site. The area mapped also includes area within the 50' no cut buffer. Those areas should be excluded.
- CF24-03- No additional comments.
- CF24-04- It is unclear if the area includes the stream buffer. If the area does include a portion of the 50'-300' buffer all steps available should be taken to minimize ground disturbance and soil transport off site.
- CF24-05- Area to be thinned included areas within the 50'-300' buffer. All steps available should be taken to minimize ground disturbance and soil transport off site. The area mapped also includes area within the 50' no cut buffer. Those areas should be excluded.
- CF24-06- Area to be thinned included areas within the 50'-300' buffer. All steps available should be taken to minimize ground disturbance and soil transport off site. The area mapped also includes area within the 50' no cut buffer. Those areas should be excluded.
- CF24-07- No additional comments.
- CF24-08- No additional comments.
- CF24-09- No additional comments.
- CF24-10- Area to be thinned included areas within the 50'-300' buffer. All steps available should be taken to minimize ground disturbance and soil transport off site. The area mapped also includes area within the 50' no cut buffer. Those areas should be excluded. There is a mapped ditch within the tract which is not currently buffered. Consideration should be given to doing so. At a minimum, the loggers should proceed with care to minimize sediment transport off site. The Forest Service should consult with their hydrologist to determine if it would be a candidate for plugging or other technique to restore more natural hydrology to the area.
- CF24-11- Minimize disturbance within the 300' buffer located within the stand. Overall, it is a very small fraction of the harvest so it should not be difficult to do so. The buffer is located along the access road. That area should not be used as an access route to the stand.
- CF24-12- No additional comments.

- CF24-13- Area to be thinned included areas within the 50-300' buffer. All steps available should be taken to minimize ground disturbance and soil transport off site.
- CF24-14- No additional comments.
- CF24-15- No additional comments.
- PO24-1- There is a small portion of mapped wetlands within the stand. Consideration should be given to removing this from the harvest if that is the case. If that is not possible extreme care should be taken to minimize disturbance.
- PO24-2- Area to be thinned included areas within the 50'-300' buffer. All steps available should be taken to minimize ground disturbance and soil transport off site. The area mapped also includes area within the 50' no cut buffer. Those areas should be excluded.
- PO24-3- No additional comments.
- PO24-4- No additional comments.
- PO24-5- No additional comments.

CITIZEN'S ADVISORY COMMITTEE COMMENTS

- I would support a pilot project to see what effects (if any) there are from e-Bike use on forest land. Without knowing more about the bikes or public perception of them in natural areas, I think that a pilot would be a good way to figure out how they would be received and what possible negative effects we might not be thinking of. It sounds like a relatively benign way of accessing the areas and if regular bikes are already allowed, I don't see why e-Bikes might not also be acceptable.
- 2. I do not support the use of ATVs or any of there other acronyms (OSV, ORV, etc.) on forest or other DNR lands. They are loud and are not an acceptable co-use with houseback riding, biking, hiking, hunting, or other passive access. Not only are they disruptive to nature and people's enjoyment of it, they are extremely damaging to the trail networks and there is no way to ensure that they are not used for off-trail access which would be even more damaging to the natural resources and water quality. There are no areas in our region that are large enough to house such a use without being extremely detrimental to other uses and users of the areas.
- 3. I am also not in favor of Sunday hunting on public lands anywhere in MD (excluding the donated leasable hunting areas). Already the woods and other open areas are practically inaccessible to hikers, bikers, and passive recreation users from Monday through Saturday for over 6 months of the year (Sept 1 through early Feb and then again from mid-April to late-May) and during some of the best times to be out and about in MD (let's face it June-August is not the best time to be out due to heat, humidity, ticks, chiggers, and biting flies and mosquitos). It is bad enough that private land hunting has been opened in the state on Sundays which already greatly impacts non-hunters' ability to safely access any open spaces (or even their own properties) for over half of the year. Public spaces should have balanced use among users and use of state lands during a large portion of the year already favors one user group (hunters) over the others.

Jared R. Parks Land Programs Manager Lower Shore Land Trust 100 River Street Snow Hill, MD 21863 www.lowershorelandtrust.org



Chesapeake Forest & Pocomoke State Forest FY2024 Annual Work Plan – Citizens Advisory Committee Thursday, December 15, 2022

	Name	
1	Mm. Har	MAR
2	Flax soder White	MES
3	Jared Parks	LSLT
4	Tony Rang	Pixelle Fridustry
5		J
6		
7		
8		
9		
10		
11		
12		

PUBLIC COMMENTS

Public comments received on the FY24 State Forest AWPs are below, in the order they were received. Comments that were directed at a specific State Forest other than Chesapeake Forest or Pocomoke State Forest are not included in this section and may be found in that forest's Annual Work Plan.

- 136 comments received from the public- two were received after 4/21
- 6 were general comments.
- At least 1 directed at hiking trails
- 28 were specific to mountain biking
- 97 were classified as OHV focused.

To whom it may concern -

I enjoyed watching tonight's segment Outdoors Delmarva on WBOC, focused on possible plans to allow access to public lands for off-road vehicles.

I began riding motorcycles in 2019, at age 58.

If there were public lands for riding, I'd have a dirt bike tomorrow.

The Eastern Shore of Maryland depends a great deal on tourism, and outdoor recreation for our economy. Opening up logging roads, and single trail areas on the Eastern Shore for OHV's would draw even greater numbers of sportsmen and sportswomen from Delaware and Virginia to the Shore.

I hope you can make this proposal a reality.

I am writing in support of the proposal to develop an additional 6 miles of single track trail in Garrett State Forest.

The recently completed Orange trail has enhanced the appeal of the Herrington Manor / Garrett State Forest area and the proposed addition will create a nexus of mountain biking activity that will undoubtedly benefit the local community and economy.

Several of my friends from central MD are planning to travel to Garrett County solely for mountain biking trails and terrain that are not available elsewhere in the state. Having this additional trail will ensure that recreational tourism continues to benefit residents and business owners in Garrett County.

Dear Maryland Forest Service.

We are long time Maryland residents and avid birders who oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. We also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy and interfere with all other activities permitted in our Maryland Forests, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

To whom it may concern,

I am a hiker, cross country skier, and mountain biker. I am a lifetime resident of Garrett County Maryland. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

I cannot express how grateful I am for the recent single track trails that have been built in Deep Creek State Park and the trail built last summer in the state forest near Herrington Manor. Riding these tails have become very important to me personally to maintain my physical and mental health. I am grateful for the trails we have and very excited about the prospect of development of several more miles of trail. As a frequent user of the old and new trails between Herrington Manor and Swallow Falls, I am particularly excited about the proposed route of the six new miles of singletrack in this area. I see great potential in these six new miles to link up existing trails and dirt roads so that users can enjoy longer rides without having to compete with automobile traffic on paved county roads. I am sure the prospect of longer rides will be very attractive to visitors. Western Maryland is becoming an increasingly attractive destination for mountain bikers because of places like Deep Creek Lake and the new state forest trails near Herrington Manor. More mountain bike and multi-use trails in the region could make Western Maryland a premiere riding area for locals and visitors from other states. I know proponents of outdoor recreation tourism like to point out the benefits to local economies when we are asking for support for our favorite activity. I can offer only my personal experience to support this. Several times a year I will drive up to 17 hours away from home or fly across the country just to ride purpose built mountain bike trails. When I visit these areas, I patronize hotels, restaurants, grocery stores, and other local businesses.

I am one of several coaches of the youth mountain bike team Garrett County Composite which is part of the National Interscholastic Cycling Association (NICA) Maryland league. Our team focuses on developing community and respect for each other and our environment. We teach that it is a privilege to have and use public trails for mountain biking. We respect and welcome other trail users and teach our kids to take care of our trails. New trails provide more training areas for our student athletes.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

Good morning,

My name is Aaron Hordubay. I am a PE teach, father of 3 active boys, and a youth mountain biking coach. I am an overall outdoor enthusiast as I grew up fishing, hunting, hiking camping and truly enjoying our states' nature resources.

I would like to specifically comment on the Potomac-Garrett State Forest Work Plan (Pages 24-26). The plan is proposing 6 miles of singletrack trail similar to the newly constructed Orange trail by Herrington Manor. I am so glad to see more multiuser single track trails developed in the area in a responsible and environmentally friendly manner. I feel it is very importance and impactful to create recreational opportunities in our community for every person. I know how much the current trails have positively impacted my personal physical and mental health. I can personally say the trails have helped improve the quality of life for the 40 teenage members of the bike team I coach. I know it makes them and me smile every time we bike there!

I am so grateful we have the trails. The recreational value the trails adds to our community is immeasurable and I hope there are more to come!

Dear Maryland Forest Service Team,

We live in an increasingly noisy world where areas which are quiet are at a premium. Maryland's state forests are rare havens of peace which are open to the public. These forests are used for hiking, horseback riding, birding and hunting. The use of off highway vehicles (OHVs) destroys the peace and tranquility. This one class of user sacrifices the peace and quiet for all other users. I was therefore saddened to learn that there are plans to expand OHV trails at St. John's Rock in Savage River State Park. I urge you not to allow this expansion for the sake of all the other users of the State Forests.

Thank you for considering my plea.

Good Afternoon,

I am a resident of Garrett County and live in Accident Maryland. We frequently use the trails at Margroff, we hike and mountain bikeand cross country ski the trails usually a couple times per week. I read the proposal for the new trails and I'm very excited that this is happening so close to home. Thank You Nancy Zbel

I am a mountain biker and Maryland resident who enjoys visiting the western part of the state for its unique outdoor experiences. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

Western Maryland is becoming an increasingly attractive destination for mountain bikers because of places like Deep Creek Lake and Herrington Manor. More mountain bike and multi-use trails in the region could make Western Maryland a premiere riding area for locals and visitors from other states. Outdoor recreation tourism helps bolster the local economy. Visitors like myself also patronize hotels, restaurants, grocery stores, and other local businesses. In 2019, tourism brought in over \$25 million in direct consumer taxes for Western Maryland.

Green Ridge State Forest, the largest state forest property in all of Maryland, has only 12 miles of trail open to mountain bikes versus over 50 miles of hiking trails. The existing mountain bike trail also needs some repairs. Please upgrade the current trail in Green Ridge and add more riding opportunities, either by making more Green Ridge trails multi-use or adding new bike trail. These construction and maintenance proposals will expand ride options in the region, provide a well-rounded ride experience for mountain bikers of all abilities, and help alleviate crowded trails especially at peak season.

Additional mountain biking trails is an investment in youth sports. New trails will provide more training areas for student athletes involved in the National Interscholastic Cycling Association (NICA) Maryland league. This league has over 700 student athletes, 250 coaches statewide. More trails mean more opportunities for all trail users.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

I am a Garrett County resident and frequent visitor to Savage River State Forest trails, especially Meadow Mountain. I appreciate and value these natural resources and want to protect them so that I and others can continue to enjoy them for hiking, birding, botanizing, and cross-country skiing.

I respectfully submit the following comments on the FY 2024 Annual Work Plan for Savage River State Forest:

I oppose the expansion of the OHV trails through the state and especially at St. John's Rock in Savage River State Forest. OHV's interfere with all other recreational activities due to their noise, pollution, sediment disturbance, and resulting trash. The current resources don't seem to be fully tilitized so further expansion is unwarranted. Efforts should focus on improving the trails that already exist. This is consistent with stated Maryland Forest Service recreational goals.

I do support the expansion of mountain biking and hiking trails. All trail expansion should involve rigorous oversight in order to mitigate soil disturbance and reduce risk of invasive plant introduction through contaminated materials. This is consistent with the current Land Management Projects and Non-Native Invasive Species (NNIS) INventory and Control Work.

Greetings Maryland State Forests DNR Team,

I am a mountain biker and Director/Head Coach for the Velociraptors - Eastern Panhandle Composite Youth Mountain Bike Team in the West Virginia Interscholastic Cycling League affiliated with the National Interscholastic Cycling Association. My team has families from Maryland, Pennsylvania, Virginia, and West Virginia. My friends, myself, and our team enjoy visiting the western part of Maryland for its unique outdoor experiences. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

Western Maryland is becoming an increasingly attractive destination for mountain bikers because of places like Deep Creek Lake and Herrington Manor. More mountain bike and multi-use trails in the region could make Western Maryland a premiere riding area for locals and visitors from other states. Outdoor recreation tourism helps bolster the local economy. Visitors like myself also patronize hotels, restaurants, grocery stores, and other local businesses. In 2019, tourism brought in over \$25 million in direct consumer taxes for Western Maryland.

Green Ridge State Forest, the largest state forest property in all of Maryland, has only 12 miles of trail open to mountain bikes versus over 50 miles of hiking trails. The existing mountain bike trail also needs some repairs. Please upgrade the current trail in Green Ridge and add more riding opportunities, either by making more Green Ridge trails multi-use or adding new bike trail. These construction and maintenance proposals will expand ride options in the region, provide a well-rounded ride experience for mountain bikers of all abilities, and help alleviate crowded trails especially at peak season.

Additional mountain biking trails are an investment in youth sports. New trails will provide more recreational adventure and training areas for student athletes from West Virginia, Virginia, Pennsylvania, and Maryland including the Garrett County Composite team which is part of the National Interscholastic Cycling Association (NICA) Maryland league.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

I am a mountain biker and Virginia resident who enjoys visiting the western part of Maryland for its unique outdoor experiences. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests.

I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

Green Ridge State Forest has only 12 miles of trail open to mountain bikes versus over 50 miles of hiking trails. The existing mountain bike trail also needs some repairs. Please upgrade the current trail in Green Ridge and add more riding opportunities, either by making more Green Ridge trails multi-use or adding new bike trail. These construction and maintenance proposals will expand ride options in the region, provide a well-rounded ride experience for mountain bikers of all abilities, and help alleviate crowded trails especially at peak season.

Additional mountain biking trails are also an investment in youth sports. New trails will provide more training areas for student athletes including the Garrett County Composite team which is part of the National Interscholastic Cycling Association (NICA) Maryland league.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

I want to provide some public comment in favor of trail development at the Garrett State Forest.

Since the new single track trails opened, I have been to parts of Garrett Forest I have never seen in my past 18 years of living here, barely 3 miles from that area. THANK YOU! for developing those trails!

It's hard to describe how beautiful it is riding a single track trail on a mountain bike! Many folks would think it gets you to the same place that a dirt road does, so what's the difference? Until you experience it, it's hard to describe, but it is just so much more amazing to experience the forest and ferns riding a thin, challenging trail rather than slogging up a dirt road.

In the Garrett Forest single track the experience is otherworldly - seriously! With all our indigenous ferns, I always thought it looked like the scenery from the Ewok Villiage in Star Wars - BUT NOW riding my bike through the fern-filled forest is like racing a speeder through the forests of Endor in Star Wars-Return of the Jedi!

Thank you for making this happen and please make more single track in our community!

I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

Western Maryland is becoming an increasingly attractive destination for mountain bikers because of places like Deep Creek Lake and Herrington Manor. More mountain bike and multi-use trails in the region could make Western Maryland a premiere riding area for locals and visitors from other states. Outdoor recreation tourism helps bolster the local economy. Visitors like myself also patronize hotels, restaurants, grocery stores, and other local businesses. In 2019, tourism brought in over \$25 million in direct consumer taxes for Western Maryland.

Green Ridge State Forest, the largest state forest property in all of Maryland, has only 12 miles of trail open to mountain bikes versus over 50 miles of hiking trails. The existing mountain bike trail also needs some repairs. Please upgrade the current trail in Green Ridge and add more riding opportunities, either by

making more Green Ridge trails multi-use or adding new bike trail. These construction and maintenance proposals will expand ride options in the region, provide a well-rounded ride experience for mountain bikers of all abilities, and help alleviate crowded trails especially at peak season.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

Thank you for the opportunity to comment on the 2024 draft work plan for the Potomac Garrett State Forest. As a long time hunter and hiker of Snaggy Mountain, I wanted to comment on the trail proposal in that area. I read the plan and I noticed that the ID team comment section was not included. I requested the comments from the state forest and received them for review. After reviewing these comments, it became obvious that this proposal had no support by the ID team, and should not move forward. As an avid hunter I agree, that the trail project should not go though. The state forest does not need dissected any more than it already had been. Thank you again for the opportunity. I look forward to using the the state forest of many years to come.

Dear, Maryland Forest Service:

Please do not expand OHV trails in Maryland State Forests.

I do not support the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest or in any other Maryland State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests.

OHVs take away from the escape and serenity that our State Forests offer to those looking to get away from the hustle & bustle and pollution of city/suburban life. OHVs are noisy; they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution.

Thank you for all that you do, and please do not expand OHV trails in Maryland State Forests.

Dear Maryland Forest Service:

As a birder, hiker, and longtime Maryland resident, I strongly oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHV trails fragment habitat, a strong consideration in these times of diminishing biodiversity. The OHVs themselves are noisy, and they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

Dear DNR,

It has come to my attention that Maryland DNR is considering expanding OHV trails in some of the Maryland State Forests.

I thoroughly enjoy the birds and wildlife while walking through Shad Landing and Milburn Landing State Parks and Forest. They are very quiet places where I can enjoy the serenity of the forest.

Increasing OHV trails would destroy the peacefulness of the forest and put added pressure on the wildlife. So much of wildlife habitat is fragmented and it is your responsibility to protect what little undisturbed habitat is left.

I vehemently oppose expanding OHV trails in Maryland State Parks and Forests.

Dear Mr. Rider, Ms. Hairston-Strang, and Ms. Olek,

I received an email stating that the Maryland Forest Service is creating a draft plan that would expand offhighway vehicle (OHV) trails in Savage River State Forest. I am against this 100% and I encourage you to oppose it as well. As I drive around the Virginia, District of Columbia, and Maryland areas I see new construction all around me. This new construction usually involves cutting down existing trees (and small woodland areas) and the new construction increases vehicle traffic all around us. I want to preserve some areas as pristine natural environments that do not include vehicle traffic within them. I am an avid bird watcher and I would be so frustrated if I was out birding and a car drove by which prevented me from hearing the bird call and then it scared the bird off. I strongly believe in conversation and protecting our natural resources and encouraging vehicle traffic in a State Forest conflicts with conservation and protection. With climate change happening right now, do you really want to encourage the burning of more fossil fuels from cars driving through our forests? Do you really want to encourage more pollution from car exhausts in our forests?

Please reconsider this push to increase OHV trails in Maryland and instead help to protect our beautiful Maryland Forests.

Hello -

In regard to the Maryland State Forest Work Plan, I would like to speak on the aspect of trails:

As a member of the Garrett County Composite mountain bike team (as part of MICL and NICA), I have personally experienced the positive impact the new Garrett Forest trails have had on our team, my family, and the community. The new trails have provided us with a fun and exciting outdoor space to exercise, have adventures, and hold team practices. As a Garrett Coyote, mountain biker, and an all-around outdoor enthusiast, I can say with confidence that these trails are designed to cater to riders of all levels. They are beginner-friendly, yet provide experienced riders with a solid challenge.

I also have a small business based on the outdoors called Deep Creek Adventure Bureau where I have held several organized ride / race fat bike events on the Garrett State Forest Trails.

I am grateful for the time and effort put into making these trails sustainable and environmentally friendly. It is heartening to see the commitment to preserving our natural spaces while providing us with opportunities to enjoy them. I can't wait for the expansion!!

For me, the trails in Maryland Forests offer access to play, outdoor experiences, challenges, and exercise.

I would like consideration of the following notes:

1. Consider the element of play and bike-specific features in the shared-use trail design. These could be natural features that are included as alternate lines to accomplish a fun user experience while enhancing the existing natural elements and drainage needs. Also, natural material features create areas where users can practice exhilarating challenges while encouraging users to stay to designated areas.

2. Include language to encourage and plan / consider "fat biking" or winter bike riding in Section 7 (page 12).

3. Post signage to suggest connecting Strava to Trailforks to gather more trail stats. I'm not sure how this works with the State of Maryland and private entities but the information will encourage folks to spread the word and create more data for reporting.

4. In an effort to add another method to trail usage estimates, I would suggest more of the Chronolog photo posts. I've seen this recently at Deep Creek Lake State Park - https://www.chronolog.io/site/DCL101 and it could be used at trailheads or at unique forest vantage points (like the eagle's nest in Garrett State Forest).

5. Create a mechanism (or better communicate the process) to monitor issues, especially, on the new machined trails. Volunteers would be happy to help with maintenance if there was a process for this!

6. Consider adaptive bicycle access on State Forest land. While adaptive equipment cannot traverse a lot of singletrack, there are several locked gates limiting access to several gravel roads. These gates could be replaced with locked stanchions.

7. CONTINUE WITH THE PROPOSED TRAIL EXPANSIONS. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans. More trails = more folks outside = more opportunities to create community. A network across the state is absolutely desired as we will drive our cars to bike a few miles!

The state forest trails are critical for economic development and public health. And, the economic development impact is real! For example, when I held my third organized fat tire ride on the trails at Garrett State Forest, I had riders from a 150-mile radius visit my town and stay (and eat and shop and spend) for the weekend.

Once again, thank you for making these trails a reality and I am thrilled to have these trails in my backyard. They have had a positive impact on so many of us, and we look forward to many more years of enjoying them.

Dear Sirs,

As a birdwatcher and Garrett County resident I am opposed to planning for any additional OHV trails in Garrett County state forests. The operation of these vehicles damage the land and spoil the forest experience for hikers, bikers, campers, nature lovers. The 2,000 acre Wolf Den State Park has been acquired for their use in Garrett County. That land allows for a lengthy trail system for OHV riders.

To the Maryland Forest Service:

Please consider this message as our comment on the draft work plans for the state forests. We have visited Green Ridge and Savage River State Forests, and we look forward to visiting others.

Our concern with the draft work plans is that they contemplate expansion of off-highway vehicle (OHV) routes. We believe the existing OHV routes are enough. We remember some ten years ago a draft report by Maryland DNR that found extensive damage to wildlife habitat and watershed values by OHVs riding in state forests, wildlife management areas, and state parks. That must be avoided!

DNR has already provided OHV riders with a trail in St. Johns Rock in Savage River State Forest (refer to https://dnr.maryland.gov/forests/Pages/ORV/St-Johns-Rock-ORV.aspx) and the new Wolf Den Run State Park (refer to https://dnr.maryland.gov/publiclands/pages/western/wolf-den-run.aspx). DNR's

website touts Wolf Den Run as "the largest collection of ORV trails in Maryland". Other OHV opportunities exist in neighboring states, such as the Hatfield/McCoy trail system in West Virginia and the Rausch Creek Off Road Park in Pennsylvania.

We urge Maryland Forest Service to reject any further expansion of OHV trails in any state forests. We particularly oppose any OHV in Green Ridge, Potomac/Garrett, and in the Eastern Shore forests Chesapeake and Pocomoke. All these forests have diverse public values as wildlife habitat, recreational areas for camping, hiking and wildlife-watching, and as watershed protection.

The noise from OHVs spoils the day for other recreational visitors and disturbs nesting birds. OHVs also impose ecological impacts. When crossing streams, they stir up sediment that must flow down into the Potomac or the other nearby waters. We have seen places where OHVs crossed and re-crossed a stream, each time generating sediment and leaving a sheen of engine oil on the water. The impacts affect riparian organisms such as amphibians and invertebrates, which are food for fish and for wading birds like herons.

The best course is to restrict OHVs to he already-designated routes, and focus DNR's efforts on reducing their impacts in those places. Maryland's state forests are too small to support any more OHV routes. Any funds available from the OHV dedicated fund should be used to restore damaged wildlife habitat and keep the existing OHV trails in good condition.

Hello,

I'm a long time resident of Maryland (Talbot, Montgomery) and run a national non profit organization based in the state. My family spends a lot of time in our state and County forests and parks.

I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests.

OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution.

Please do not expand OHV trails in State Forests.

Thank you

As a hiker and a birder, I oppose further sites opened up to OHV. Goodness, the whole idea of getting out in nature is to HEAR IT and experience the quiet of it. We need MORE sanctuaries, not less. These motorized machines disturb the peace and quiet, scare away the birds and animals that hunters stalk. They leave offensive air pollution and destroy fragile habitat.

I encourage you to think of other species that must share this planet with us (often destructive) humans.

Thanks for listening.

To whom it may concern,

I have lived in Maryland all of my life, as did my father, grandfathers and great grandfathers.

I hike, bird watch, hunt and hike in the forest.

I strongly oppose the expansion of trails for off-highway vehicles.

The disruptions caused by these types of vehicles are not compatible with the mission statement " to provide for wise stewardship and enjoyment by people."

Adding noise, pollution, and soil erosion is probably not considered good stewardship.

Interesting study opportunity, once you can easily haul in your cooler on the back of your ATV, how much easier is it to toss your trash deep in the woods?

Again, I oppose the expansion of OHV trails and do not see it as compatible with the mission statement of the Maryland Park Service.

Dear Maryland Forest Service,

I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests. State Forests are critical for survival of all wildlife that thrive there.

Thank you!

Dear Maryland Forest Service,

As an avid birder I strongly oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. This is a beautiful natural resource will be further disrupted should more trails for noisy and polluting OHVs be built, interfering with all other outdoor activities, including hunting, fishing, birding, nature observation, and hiking. I also strongly oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

Folks:

I am firmly against any increase in OHV trails in Maryland State Forests. It will destroy birdlife habitat.

I am a wildlife conseervationiast and strogly oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy and disruptive and interfere with other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution.

I urge you not expand OHV trails in State Forests.

Oh please don't take away our peace and quiet and allow vehicles to roam the trails of our parks. It is called quality of life when we enjoy our neighboring park lands.

Thank you..

Please do not put in any more OHV trails in the State Forests. Having vehicles in the forests disrupts the already limited habitat for birds. And for people who prefer quiet.

I understand the Maryland Forest Service is working on draft work plans for several Maryland State Forests. These include expanding off-highway vehicle (OHV) trails in Savage State Forest. I want to add my voice to that of the Maryland Ornithological Society which is opposing expansion of OHV trails in Maryland. After all, there are already five OHV trail systems in State Forests, and a newly opened State Park for OHV use.

If I am out in the woods doing what I like to do—looking for birds, seeing what's in bloom— no one else will know I'm there. However, if an OHV is anywhere nearby, I'll know, and the wildlife will know. One OHV can ruin the experience of nature for many people who are trying to quietly enjoy the outdoors.

Furthermore, OHV trails fragment habitat and lead to pollution when trails cross streams, from sediment and oil. Our woods are already facing challenges from surrounding development-- please don't add further pressure.

I do not want more OHV trails in our state forests.

Dear Maryland Forest Service,

I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests.

OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution.

Please do not expand OHV trails in Maryland's State Forests.

Dear Maryland Forest Service,

I strongly oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest and in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. The expansion of these trails will benefit a minority of people and will have substantial impact on the health and function of the forest. Increasing OHV use within the State forests will also adversely impact the more passive, environmentally compatible uses of these areas.

If there is a need for more OHV trails in Maryland that need can be filled on private lands by private enterprises. It should not be the State's responsibility to provide active use opportunities for all activities, especially those that are harmful and degrading to the environment.

Thank you for your consideration.

To: Maryland Forest Service,

I am a bird watcher, wildlife lover, and very concerned about our deteriorating environment. I strongly oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests.

OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

Leave our green spaces GREEN and QUIET!

Thank you!

Dear Maryland Forest Service,

Please do not expand OHV trails at St. John's Rock in Savage River State Forest or in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests.

I understand the need for OHV trails but feel that these should be in areas that are not critical wildlife habitat. Both resident and migrating birds that nest in these forests are declining in Maryland due to habitat loss and climate change.

OHVs are noisy, and they disturb nesting birds as well as other wildlife and interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. In this very noisy world, people need quiet places to go.

In addition, the vehicles cause erosion and degradation of the soil, destroying native plant communities and encouraging invasives. Stream crossings on such trails cause sediment and oil residue pollution.

Would it be possible to create a dedicated park for OHV's in an area less critical for wildlife conservation?

I strongly oppose additional OHV trails I'm existing forests. Having more OHV trails in forests severely decreases the enjoyment of many other activities. I am an avid hunter, fisherman, hiker, birder and nature enthusiast.

In this hectic world with 24-7 connectivity, noise pollution etc. a welcome respite is getting out in nature to enjoy solitude, nature and calmness.

Imagine if you bought a quite little farmette in the country, then the FFA informs you that they will be constructing an airport with high flight counts and Jumbo jets. Your tranquility, gone.

Please reconsider this poor decision.

Dear Maryland Forest Service.

I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. They are also gas guzzlers and contribute to climate change. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

State forests in Maryland, particularly Garrett and Allegany counties should not have any more OHV trails made which harm our forests and wildlife and the one that is just west of Frostburg (St. Johns Rock) is completely under utilized.

As a resident of Garrett county and having 2 artificial legs (lost in Vietnam war), I get around just fine in our forests and need no ATV, noise or fumes ruining our forests.

Dear Maryland Forest Service.

I recently learned from my bird club that consideration is being given to expanding OHV trails in state forests. This made me heartsick. These forests should be a sanctuary for many uses that don't conflict with each other. Driving loud fossil fuel vehicles in these public lands is highly destructive.

I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

Hello,

I have just learned about the proposed expansion of OHV trails to more of our state parks in Maryland. Please, please abandon this plan.

One of the joys of state parks is that they allow us to savor nature. I am an avid birder and member of the TriCounty Bird Club on the Lower Eastern Shore. State parks are places where people can experience the sounds and sights of nature To hear birds and see them fly through the foliage. To spy a fawn feeding next to its mother. To see fox kits play in a spot of sunshine. These invaluable gifts of nature will not be available if ORV come roaring through—animals and birds will scatter and not use the locations for breeding or feeding. The sounds of nature will be obliterated.

State parks, by definition are places where nature is preserved. Off road vehicles, by definition are NOT an example of nature—they are manufactured. People go to parks to get away from the noises, smells, sounds, and pressures of daily life. They go to hear the quiet sounds, smell the clean air, and breathe deeply of nature.

ORV can go to places specifically designed for them. Please don't inflict their carnage on the land, the flora and fauna, and the people who cherish our state parks.

Thank you for this opportunity to implore you to keep the remaining state parks free from OHV.

Dear Maryland Forest Service,

I am an avid birder and hiker who cherishes opportunities to enjoy Maryland's beautiful and diverse State Forests and other natural areas in a way that minimally impacts wildlife and leaves no trace. I'm writing to state my opposition to the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest.

I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Green Ridge State Forest, and Potomac and Garrett State Forests. OHVs are noisy and they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance and oil residue pollution. Please do not expand OHV trails in State Forests.

Dear Maryland Forest Service.

I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests. We all need some peace and quiet.

Dear Maryland Forest Service.

I am an avid birder and hike and dog-walker. I oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

Dear Maryland Forest Service.

I am a birder and fisherman and am opposes to the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests.

Maryland has few state forests and no National Forests. These ares were not set aside to be the equivalent of race tracks for extremely noisy OHVs, dirt bikes or other motorized vehicles, which are extremely noisy and interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Letting them run across streams is insane under any common sense natural resource management policy framework for all the obvious reasons, and such crossings should be avoided, and any that exist closed and the stream banks restored.

Please do not expand OHV trails in State Forests.

Dear Maryland Forest service,

I am an enthusiastic hiker, birder, fisher, hunter and naturalist in Maryland. I have lived here my whole 60 years and raised my family to enjoy the beautiful forests of Maryland. I oppose expanding the OHV trail option in Savage River state forest, a treasured retreat of ours. The existing OHV trails are problematic enough, and I are very dismayed to learn that you are planning to add more! I also oppose the other OHV trail expansions in other state forests, particularly the more remote options.

OHVs are noisy and very disruptive to the forest environment. We all need retreats from the hubbub and noise of our lives, and OHVs are a terrible introduction into the forest environment. They affect wildlife, birds and fish with their noise, speed and exhaust. They negatively impact people using the forest to hunt, hike, reflect, relax, observe nature, fish, run, etc. Their tires increase trail erosion and sediment issues in stream crossings. They are too fast, and can be unsafe for other trail users, especially older adults and small children. I have had scary and unpleasant experiences with OHVs at Savage River State Forest, and now feel that those trails are "off limits" to me.

I appreciate that OHVs allow people to get further into the forest more quickly, but at what cost? They are not safe for low mobility folks - they actually require considerable strength and coordination to operate safely- it would be much better to provide more forest access to folks using walkers, canes and wheelchairs, in my opinion.

Please reconsider your plan and re-evaluate the promotion of OHV trails in sensitive, remote areas that are so good for wildlife and all the other human activities.

Dear Maryland Forest Service,

I am an avid birder and I strongly oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, and they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking, not to mention the impact on birds and animals. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

Dear MD Forest Service,

I oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. I'm a birder and hiker and OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution.

Please do not expand OHV trails in State Forests. There are already five OHV trail systems in State Forests fragmenting our forests, and a newly opened State Park for OHV use.

Dear Maryland Forest Service,

I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

Dear Maryland Forest Service,

I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy and they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance and oil residue pollution. Please do not expand OHV trails in State Forests.

Please protect our forests and native wildlife.

Dear Maryland Forest Service.

Let's keep natural areas natural and unmolested by vehicles. I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

To the Maryland Department of Natural Resources:

Attached are comments from the Maryland Ornithological Society (MOS) on the four 2023 draft work plans for Maryland's state forests. Comments were composed by Conservation Chair, Kurt Schwarz.

Thank you for your attention to our comments.

I am a mountain biker and Maryland resident who enjoys visiting the western part of the state for its unique outdoor experiences. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

Western Maryland is becoming an increasingly attractive destination for mountain bikers because of places like Deep Creek Lake and Herrington Manor. More mountain bike and multi-use trails in the region could make Western Maryland a premiere riding area for locals and visitors from other states. Outdoor recreation tourism helps bolster the local economy. Visitors like myself also patronize hotels, restaurants, grocery stores, and other local businesses. In 2019, tourism brought in over \$25 million in direct consumer taxes for Western Maryland.

Green Ridge State Forest, the largest state forest property in all of Maryland, has only 12 miles of trail open to mountain bikes versus over 50 miles of hiking trails. The existing mountain bike trail also needs some repairs. Please upgrade the current trail in Green Ridge and add more riding opportunities, either by making more Green Ridge trails multi-use or adding new bike trail. These construction and maintenance proposals will expand ride options in the region, provide a well-rounded ride experience for mountain bikers of all abilities, and help alleviate crowded trails especially at peak season.

Additional mountain biking trails is an investment in youth sports. New trails will provide more training areas for student athletes including the Garrett County Composite team which is part of the National Interscholastic Cycling Association (NICA) Maryland league.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

Hello,

I am a resident of Frederick, Maryland and enjoy utilizing Maryland's public lands for various types of recreational activities. I am in support of actions that balance recreation access with resource management and ecological preservation. I believe Maryland's state forests are currently under-utilized for resource based recreation activities compared with other state's forests. State forests offer excellent potential for low-impact, dispersed recreation such as natural surface trail systems.

I have briefly reviewed the work plans for the various forests, and am pleased to see plans to maintain and expand the state's trail access. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

Specifically, I'd like to see Maryland's state forests follow the lead of MD state parks by creating professionally-constructed trail networks that serve a variety of ability levels. The state's general permit for natural surface trail construction and MPS BMP's for natural surface trail construction have resulted in quality user experiences that limit maintenance strain on land managers. While I understand the need to increase accessibility to some areas, I believe there should also be longer-range, less-developed trail experiences for more advanced and adventurous mountain bikers and hikers. State forests are a perfect location to develop these experiences, which may fall in the "blue" or "black" columns in the MPS trail matrix.

In addition to trails, I support plans for general maintenance to existing roads and facilities. Any opportunities for dispersed camping and increased human-powered connectivity to other state lands are appreciated as well.

Dear State Forests Office:

I am a mountain biker and am part of family who has owned property at Deep Creek Lake, MD since 1990. I enjoy visiting the western part of the state for its unique outdoor experiences. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

Western Maryland is becoming an increasingly attractive destination for mountain bikers because of places like Deep Creek Lake and Herrington Manor. More mountain bike and multi-use trails in the region could make Western Maryland a premiere riding area for locals and visitors from other states. Outdoor recreation tourism helps bolster the local economy. Visitors like myself also patronize hotels, restaurants, grocery stores, and other local businesses. In 2019, tourism brought in over \$25 million in direct consumer taxes for Western Maryland.

Green Ridge State Forest, the largest state forest property in all of Maryland, has only 12 miles of trail open to mountain bikes versus over 50 miles of hiking trails. The existing mountain bike trail also needs some repairs. Please upgrade the current trail in Green Ridge and add more riding opportunities, either by making more Green Ridge trails multi-use or adding new bike trail. These construction and maintenance proposals will expand ride options in the region, provide a well-rounded ride experience for mountain bikers of all abilities, and help alleviate crowded trails especially at peak season.

Additional mountain biking trails is an investment in youth sports. New trails will provide more training areas for student athletes including the Garrett County Composite team which is part of the National Interscholastic Cycling Association (NICA) Maryland league.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

I just read the Mission Statement of DNR's Forest Management, and was moved by the words. And now with the advanced knowledge of what truly makes a sustainable, and fully diverse forest community to pass on to Maryland's future generations of humans....and to protect aged, and still aging habitats of old growth forests for posterity, and to further transition established wildlife habitats...now seems the perfect time to be a better national leader in setting aside wide swaths of those important acres of flora, and fauna, and to carefully trim away the less valuable planned timber for harvesting. The existing and more valuable old growth forest, and old standing connected habitats for wildlife continuation can be more utilized as 'Eco-Tourism' trails, and paths, campgrounds, and more Maryland State, County, and even City Parklands. And Maryland's forests are perfectly situated to be large drawls for many in the ever expanding populations, and also harvesting the valuable available tourist dollars at newly established trails, or parks....and for the surrounding business communities.

Hello,

I am a mountain biker and Maryland resident who enjoys visiting the western part of the state for its unique outdoor experiences. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

Western Maryland is becoming an increasingly attractive destination for mountain bikers because of places like Deep Creek Lake and Herrington Manor. More mountain bike and multi-use trails in the region could make Western Maryland a premiere riding area for locals and visitors from other states. Outdoor recreation tourism helps bolster the local economy. Visitors like myself also patronize hotels, restaurants, grocery stores, and other local businesses. In 2019, tourism brought in over \$25 million in direct consumer taxes for Western Maryland.

Green Ridge State Forest, the largest state forest property in all of Maryland, has only 12 miles of trail open to mountain bikes versus over 50 miles of hiking trails. The existing mountain bike trail also needs some repairs. Please upgrade the current trail in Green Ridge and add more riding opportunities, either by making more Green Ridge trails multi-use or adding new bike trails. These construction and maintenance proposals will expand ride options in the region, provide a well-rounded ride experience for mountain bikers of all abilities, and help alleviate crowded trails especially at peak season.

Additional mountain biking trails are an investment in youth sports. New trails will provide more training areas for student athletes including the Garrett County Composite team which is part of the National Interscholastic Cycling Association (NICA) Maryland league.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

I am writing to express my support for the proposed mountain biking trails in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. As an avid mountain biker and resident of Maryland, I am excited about the prospect of new and improved trails in Western Maryland.

The proposed plans, including six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of singletrack in Savage River State Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, would provide mountain bikers with a diverse range of riding options and enhance the outdoor recreation opportunities in the area.

I believe that additional mountain biking trails would make Western Maryland a premiere riding area for locals and visitors alike. Outdoor recreation tourism is a valuable source of revenue for the local economy, and more mountain bike and multi-use trails would help support local businesses such as hotels, restaurants, and grocery stores.

Moreover, expanding the trails in Green Ridge State Forest, the largest state forest property in Maryland, would be especially beneficial. With only 12 miles of trail currently open to mountain bikes, more opportunities are needed for riders of all abilities. By upgrading the current trail and adding more riding options, we can alleviate crowded trails and provide a well-rounded riding experience.

In addition to benefiting the local economy, new trails would also be an investment in youth sports. More trails would provide additional training areas for student athletes, including the Garrett County Composite team, which is part of the National Interscholastic Cycling Association (NICA) Maryland league.

Thank you for considering my comments on the Annual Work Plans. I strongly support the proposed mountain biking trails and urge you to prioritize their implementation.

MORE Trails

Thank you for your recent efforts to expand the trails in Deep Creek MD. I enjoy mountain biking even at my older age and visit the western part of Maryland a few times a year for its unique outdoor experiences. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of single-track between Herrington Manor and Swallow Falls State Parks, five new miles of new single-track in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

I've enjoyed Green Ridge State Forest and Rocky Gap over the years and know they both have so much more potential than the primitive trail systems in place today. I appreciate Green Ridge State Forest is the largest state forest property in all of Maryland, however it only has only 12 miles of trail open to mountain bikes versus over 50 miles of hiking trails. The existing mountain bike trail also needs some repairs. Please upgrade the current trail in Green Ridge and add more riding opportunities, either by making more Green Ridge trails multi-use or adding new bike trail. These construction and maintenance proposals will expand ride options in the region, provide a well-rounded ride experience for mountain bikers of all abilities, and help alleviate crowded trails especially at peak season.

It's common knowledge trails helped not only myself, but countless individuals deal with physical and mental wellbeing throughout the pandemic and now we have a desire to keep enjoying the outdoors to address our physical and mental needs for outdoor experiences. I hope you've noticed kids and families on bikes as you manage our great natural surface trail resources, I have. Expanding our mountain biking trails is an investment in our youth and helps create stewards for the future of our public spaces. New trails will provide more training areas for student athletes including the Garrett County Composite team which is part of the National Interscholastic Cycling Association (NICA) Maryland league. Please add more Sustainable, Natural Surface, Multi-use, Public trails to the awesome trail systems in Western Maryland.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

Thank you for your consideration,

I am a mountain biker and Maryland resident who enjoys visiting the western part of the state for its unique outdoor experiences. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

Western Maryland is becoming an increasingly attractive destination for mountain bikers because of places like Deep Creek Lake and Herrington Manor. More mountain bike and multi-use trails in the region could make Western Maryland a premiere riding area for locals and visitors from other states. Outdoor recreation tourism helps bolster the local economy. Visitors like myself also patronize hotels, restaurants, grocery stores, and other local businesses. In 2019, tourism brought in over \$25 million in direct consumer taxes for Western Maryland.

Green Ridge State Forest, the largest state forest property in all of Maryland, has only 12 miles of trail open to mountain bikes versus over 50 miles of hiking trails. The existing mountain bike trail also needs some repairs. Please upgrade the current trail in Green Ridge and add more riding opportunities, either by making more Green Ridge trails multi-use or adding new bike trail. These construction and maintenance proposals will expand ride options in the region, provide a well-rounded ride experience for mountain bikers of all abilities, and help alleviate crowded trails especially at peak season.

Additional mountain biking trails is an investment in youth sports. New trails will provide more training areas for student athletes including the Garrett County Composite team which is part of the National Interscholastic Cycling Association (NICA) Maryland league.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

Dear Maryland Forest Service.

I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

NO!

Dear Maryland Forest Service.

As an avid birder and nature enthusiast, I very strongly oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I am against such OHV trails in other state forests. OHVs are extremely noisy causing interference with all other activities. Trails will be torn up. Vegetation destroyedWhere streams are crossed you will have sediment disturbance, erosion and pollution.

I volunteered for many years as a naturalist in state parks. While I'm sure there are many responsible OHV riders, my experience has been with the opposite. A few adjectives that come to mind are rude, pushy, disrespectful, self-centered and unwanted. While everyone should be free to enjoy nature in whichever way best suits them, most OHV riders care not one bit about nature and think that those who

do are wimps. Or worse. I am sure you can come up with places to convert for their use. Just please do not destroy our forests to do so. There must be some brownfields just waiting for them. Thank you.

Dear Maryland Forest Service.

I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

Dear Maryland Forest Service,

Please do not expand OHV trails in Maryland state forests. I oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests most importantly Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. I am a bird watcher and enjoy the peace and quiet I find in our state parks. OHVs are noisy and they interfere with all other activities. The damage they inflict on the environment leads to sediment disturbance and oil residue pollution. Please, please, please do not expand the trail system for OHVs in our lovely state forests.

Dear Maryland Forest Service.

I am submitting comments about the MFS proposed increase in off-road vehicle access in states forests. I am a fly fisher and a birder, and a member of both Trout Unlimited and the Maryland Ornithological Society. Any expansion of the off-highway (OHV) trail at St. John's Rock in Savage River State Forest would be disastrous for my use of the same area. The noise and physical disturbance of OHVs interfere with all other nature-based activities including fishing and birding, as well as simple enjoyment of nature by all ages. Stream crossings pollute fragile mountain trout streams with sediment, oil residue and other pollutants, threatening the aquatic invertebrates which support our trout fisheries, as well as the fish themselves. The exhaust emissions pollute what should be clean mountain air (and not exactly the right image is it, in light of climate change?) There are peer-reviewed studies showing the impact on nesting birds from noisy trail disturbance (singing birds move further away or abandon territories, incubating birds are flushed from their nests, greatly increasing risk of nest predation. And what birder can hear the song of the state-endangered Golden-winged Warbler or other special birds of western Maryland, when competing with the roar of an ORV engine?

For these reasons, I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. It is the wrong message to the state's nature lovers, and to those concerned with climate change.

I oppose the construction of the planned OHV trails.in STATE Forests. They are disruptive.

Dear Maryland Forest Service:

I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

Maryland Forest Service:

I enjoy the outdoors and am an avid birder. I strongly oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest (I also oppose such OHV trails in other state forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests). OHVs are ridiculously unnecessary, noisy, and annoying to all. They interfere with all other more pleasant activities, like birding, enjoying nature, and hiking. Driving these stupid things through streams on such trails leaves oil pollution. Please do not expand OHV trails in State Forests.

Dear Maryland Forest Service.

I am an avid birder and hiker and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution.

Please do not expand OHV trails in State Forests.

Thank you for your consideration for nature,

Dear Maryland Forest Service:

I am a hiker and birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest.

I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

thanks very much,

Dear Maryland Forest Service.

I am an avid nature lover and birder and frequently visit Maryland state forests to observe and photograph wildlife. I found Maryland state forest to be among the most important natural areas left in Maryland. I strongly oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garrett State Forests.

OHVs are noisy and seriously interfere with virtually all other activities in state forests, including enjoyment of nature, hunting, fishing, birding, and hiking. Stream crossings on such trails also cause sediment disturbance and oil residue pollution that is harmful to aquatic life.

Please do not expand OHV trails in State Forests.

Dear Maryland Forest Service:

I absolutely oppose creating more off-highway vehicle (OHV) trails in any Maryland state forests. Such trails would interfere with all other uses (like birding, hunting, fishing and hiking) in our forests. Why should a small minority of forest users be allowed to overwhelm all other uses for these precious state lands.

Dear Maryland Forest Service,

I am an avid birder, hiker and naturalist, and oppose any expansion of off-highway vehicle (OHV) trails in Maryland State Forests. OHVs are very noisy, and Interfere with activities such as hiking, birding, nature observation etc.

Please do not expand OHV trails in State Forests.

Thank you.

Dear Maryland Forest Service.

I oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest and at all other other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution.

Such use is contrary the purpose of preserving these natural environments for persons, flora, fauna and all migrators who depend on them.

Please do not expand OHV trails in State Forests.

Dear Maryland Forest Service.

I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

I am a lifelong Maryland resident who has visited our state forests for many years to hike, bird watch, fish.

No more OHV trails should be added in Maryland's state forests. The state forests are used by many members of the public such as hikers, mountain bikers, backpackers, birders, campers, photographers, etc. All of these users would be adversely impacted by noisy off highway vehicles either through disturbance of animals, or noise pollution.

I think it would be bad policy to allow a minority of state forest users (OHV riders) to impact the experience of a majority of the public that visit Maryland's state forests.

Thank you for your consideration.

Please do NOT allow additional OHV trails. I know you are receiving many letters decrying how these trails affect people, but the forests themselves and the animals they contain are under ever growing stress from building encroachment and power and farming development. Please maintain the pristine land we have in Maryland and help OHV riders to find ways to have fun that don't pollute those formerly pristine forests with oil, exhaust, noise and high speed constant movement. In hope you will agree to reserve these forests.

Dear Maryland Forest Service.

I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

Dear Maryland Forest Service,

I am a professional ecologist and conservation advocate, serving on my state and local boards and commissions. I oppose the expansion of off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with quiet outdoors activities such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance and oil residue pollution. Please do not expand OHV trails in State Forests.

Please don't ruin our beautiful natural areas by allowing off- road vehicle access. They are loud and dangerous to hikers & bicyclists, as well as to the birds, animals and plants in these areas. We need to preserve our natural world, not destroy it or allow off road vehicles to ruin our for everyone else. Thanks!

Dear Md. Forest Service,

I don't believe that you are really considering the expansion of the off highway vehicle trail at St. John's Rook in the Savage River State Forest. OHV's take away the pleasure of visiting any State Forest for fishing, birding, forest bathing, hiking, and the " awe" of being in a natural setting. Plus the OHV's crossing streams causes disturbance and oil pollution in the water.

I find it heart breaking that you are considering this expansion in State Forests let alone the Savage River State Forest. It will damage the wildlife that lives in the State Forests affecting bird and other wildlife communication.

Thank you for your time and consideration.

I am a bird watcher, and nature lover who walks the state parks. I am disturbed by this push to expand off-highway vehicle (OHV) trails into St. John's Rock in Savage River State Forest, Chesapeake, and Pocomoke, etc. I certainly cannot walk such a trail in safety. And the belief that there can be separate bike and hiking trials falls apart whenever I visit places with both, in segregated areas. Even trails with just mountain bikes are too dangerous for pedestrian use. Every time we go to the 'hiking only' trails at Loch Raven Reservoir near my home we encounter mountain bikes. One fears getting run over. Riders may wear earbuds turned up so loud that one can hear every note. Now ebikes are capable of speeds up to 40mph! Rugged tires, at such speed, cause instant damage to our hiking trails. Why would YOU, DNR, the the protectors of state forests, consider inviting such destructive vehicles into the forest lands?

Dear Maryland Forest Service,

I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in MD State Forests.

Thank you!

As an avid birder I oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

Dear Maryland Forest Service,

My daughters (ages 12 & 8) are avid birds with my husband & I trying to keep up. We oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests.

OHVs are noisy, interfere with quiet nature experiences (noise, pollution & danger of vehicles) such as hiking & birding.

Stream crossings create pollution in streams, disturb wildlife & can cause increased sediment.

Please keep our forests for PEOPLE first. Vehicles are everywhere. We need forests to escape the vehicles & our wildlife needs space where people haven't developed.

Please STOP all expansion of OHV in state forests!

Hello,

I am writing to express opposition to plans to expand off-highway vehicle trail systems in Maryland state forests. State forests are already used for many beloved uses that would be disturbed by additional OHV trails and by OHV use. Additionally the use of such vehicles in state forests would harm the ecosystems that the state forest system is supposed to protect! Please do not increase OHV trails in any state forests, including Savage River SF, Chesapeake and Pocomoke SFs, Greenridge SF, Potomac SF, or Garrett SF. It's vital that the state continues to protect our resources and conserve them for good.

Dear Maryland Forest Service:

I am writing to you to submit my public comment on the open public comment period regarding your proposed expansion of off-highway vehicle (OHV) trails in our State Forests. I am a professional field biologist who spends much time in Maryland State Forests and other MD public lands looking/listening

for birds and other wildlife species. I emphatically oppose any expansion of OHV trails in any Maryland State Forests, but especially Green Ridge State Forest, Chesapeake and Pocomoke State Forests, and Potomac and Garrett State Forests. Obviously, OHVs are very noisy, they interfere with all other activities, especially birding but also hunting, fishing, nature observation, camping, and hiking. Stream crossings on such trails cause sediment disturbance and oil residue contamination. Please do NOT expand OHV trails in Maryland State Forests!

Thank you for your consideration of my comments herein.

Dear Maryland Forest Service,

You are doing incredible work to protect and preserve Maryland's natural beauty in our forests. We know enough at this point that excessive noise, development, pollution, and erosion result in challenges to forest ecosystems and various animal and plant species. Expanding OHV trails brings all of these negative elements to our forests. Yes, recreational outlets are important for human species, but let's focus those efforts on places where ecosystems are more sustainable for such activities, not our (mostly) pristine forested areas. There's nothing quiet so jarring as having a quiet hike, a forest meditation, or some birdwatching and nature watching disrupted by an unmuffled dirt bike or ATV. Please - no more OHV trails in our state forests.

Dear Maryland Forest Service,

I am writing to ask you to oppose the expansion of off highway vehicle use at state forests. Such use disturbs the environment and causes erosion.

I love the outdoors, especially its peaceful and tranquil environment. I love to hike, camp, go birding and observe nature. OHV use would destroy those experiences in addition to degrading the environment.

Please do not permit further use of OHVs in state forests.

Thank you for your consideration.

Put me down for a NO on more OHV trails.

Lines need to be drawn where we don't run roughshod over every landscape.

Folks want to enjoy the forests- walk. Those with disabilities that cannot walk, wouldn't be "enjoying" the forest anyway on an OHV, they'd just be adding to its demise.

Dear Maryland Forest Service.

I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

Please do not add any more OHV roads to Maryland National forests. Besides being polluting with carbon and noise, they disturb more quiet activities such as hiking, birding and hunting. They break up habitat for native flora and fauna. Encouraging this kind of activity is not where we should be going. We need to preserve our planet as much as possible.

I strongly oppose opening Maryland's beautiful State Forests to off-highway vehicles. We have protected these lands so well for the future of our children. Short term gains in political donations by ohv sellers cannot possibly be worth the damage to habitats for wildlife and birds that will be caused by OHV use.

What are you thinking??

Dear Maryland Forest Service.

I am a longtime resident of Maryland, and an avid birder, hiker, and user of Maryland's amazing state forests. I and my family strongly oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. We also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests.

In addition to the native environmental impacts, as a woman who frequently hikes and birdwatches solo, I know that OHVs allow a certain element of human into forests that are not always safe for woman or even men who enjoy forests by themselves.

Please keep our state forests safe and for nature.

Dear Maryland State Forest Service:

I am writing on behalf of the Audubon Society of Central Maryland (ASCM), a 501c3 chapter of the National Audubon Society. ASCM opposes the expansion of the Off Highway Vehicle (OHV) trail in Savage River State Forest as proposed in the draft forest work plan. Our organization owns two wildlife sanctuaries in Frederick County, and we know that OHVs are disruptive to the environment and to the visitor experience. We urge you to remove the plan for OHV expansion before finalizing your draft.

OHV recreation on public lands threatens ecological communities and visitor satisfaction. Visitors who prefer any other type of activity, whether hunting, fishing, birdwatching, hiking, photography, or family nature walks, lose value in their experience from the noise, danger, and physical site damage caused by OHVs. Noise also disrupts wildlife habitat, interfering with communication and inflicting stress on wildlife. Trails fragment habitats and encourage the spread and proliferation of invasive species, which are major threats to wildlife, to forest regeneration and production, and to visitor enjoyment of natural spaces. Perhaps most significantly, the trails cause major erosion, degrading the forest and its vital waterways.

Pioneering conservationist Aldo Leopold called soil "the basic resource." In a 1924 speech, he said, "By expensive planting and a generation or two of waiting, a ruined forest can again become productive—if the soil is there. . . . But if the soil is gone, the loss is absolute and irrevocable."

Please protect the future of our irreplaceable state forests by limiting OHV access to public lands to existing the existing trail at Savage River. Expanding that trail would set a precedent for irrevocable degradation throughout our precious Maryland state forests.

Dear Maryland Forest Service,

Thank you for your wonderful work maintaining this state's forest and giving us vibrant green spaces to enjoy. I am a hiker and love to explore our different state forests. Quiet time in nature revives my soul.

Please do not expand trails for OHV traffic. The use of such trails increases noise levels and pollution in the forests. Traffic will ruin the experience for bird watchers. Additionally, the trails itself create habitat barriers for animals and plants.

Hi,

As a person who enjoys the great outdoors it is getting increasingly difficult to find quiet places to go and feel I get away from the noise of day to day life. Do we really need more OHV trails in State Forests? Have you ever tried to listen to birds when these vehicles come buzzing by? There are already five OHV trail systems in State Forests, and a newly opened State Park for OHV use. Doesn't my mental health matter seeking some peace and quiet in nature? I do not support more OHV trails in State Forests.

Dear Maryland Forest Service.

I am an avid birder and oppose the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. I also oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. OHVs are noisy, they interfere with all other activities, such as hunting, fishing, birding, nature observation, and hiking. Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Please do not expand OHV trails in State Forests. People need forests for peace and quiet and to experience nature. Noise pollution is a huge problem, why introduce it to our forests?

Please continue the work on expanding hiking and backpacking trails.

Through hiking on the Big Savage Trail with shelters and potable water would be a great draw for those seeking multiday outdoor adventures.

Maintence of existing trails also a must.

When forest cutting is necessary on tracks adjacent to trails a border of uncut trees should be considered.

Also, when tree cutting does occur on plots next to trails educational signage could be posted explaining the forest harvesting practices to lessen the out cry from tree huggers.

I am a mountain biker and Maryland resident who enjoys visiting the western part of the state for its unique outdoor experiences. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

Western Maryland is becoming an increasingly attractive destination for mountain bikers because of places like Deep Creek Lake and Herrington Manor. More mountain bike and multi-use trails in the region could make Western Maryland a premiere riding area for locals and visitors from other states. Outdoor recreation tourism helps bolster the local economy. Visitors like myself also patronize hotels, restaurants, grocery stores, and other local businesses. In 2019, tourism brought in over \$25 million in direct consumer taxes for Western Maryland.

Green Ridge State Forest, the largest state forest property in all of Maryland, has only 12 miles of trail open to mountain bikes versus over 50 miles of hiking trails. The existing mountain bike trail also needs some repairs. Please upgrade the current trail in Green Ridge and add more riding opportunities, either by making more Green Ridge trails multi-use or adding new bike trail. These construction and maintenance

proposals will expand ride options in the region, provide a well-rounded ride experience for mountain bikers of all abilities, and help alleviate crowded trails especially at peak season.

Additional mountain biking trails is an investment in youth sports. New trails will provide more training areas for student athletes including the Garrett County Composite team which is part of the National Interscholastic Cycling Association (NICA) Maryland league.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

I am a mountain biker and Maryland resident who enjoys visiting the western part of the state for its unique outdoor experiences. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

Western Maryland is becoming an increasingly attractive destination for mountain bikers because of places like Deep Creek Lake and Herrington Manor. More mountain bike and multi-use trails in the region could make Western Maryland a premiere riding area for locals and visitors from other states. Outdoor recreation tourism helps bolster the local economy. Visitors like myself also patronize hotels, restaurants, grocery stores, and other local businesses. In 2019, tourism brought in over \$25 million in direct consumer taxes for Western Maryland.

Green Ridge State Forest, the largest state forest property in all of Maryland, has only 12 miles of trail open to mountain bikes versus over 50 miles of hiking trails. The existing mountain bike trail also needs some repairs. Please upgrade the current trail in Green Ridge and add more riding opportunities, either by making more Green Ridge trails multi-use or adding new bike trail. These construction and maintenance proposals will expand ride options in the region, provide a well-rounded ride experience for mountain bikers of all abilities, and help alleviate crowded trails especially at peak season.

Additional mountain biking trails is an investment in youth sports. New trails will provide more training areas for student athletes including the Garrett County Composite team which is part of the National Interscholastic Cycling Association (NICA) Maryland league.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

Dear Maryland Forest Service,

We are avid birders and overall nature enthusiasts. We are against the expansion of the off-highway vehicle (OHV) trail at St. John's Rock in Savage River State Forest. One OHV on an otherwise quiet trail will negatively affect the birds, butterflies, critters, people, and surrounding environment. That means fewer people will take advantage of this great resource and eventually affect your funding.

In addition, we adamantly oppose such OHV trails in other State Forests such as Chesapeake and Pocomoke State Forests, Greenridge State Forest, and Potomac and Garret State Forests. The idea of allowing OVH has little merit.

OHVs are incredibly noisy, they interfere with all other outdoor activities, such as hunting, fishing, birding, nature observation, and hiking.

Our natural forest spaces are an oasis. Let's keep it that way. A quiet way to enjoy the day listening to all that nature has to offer and not the noise of many engines.

Stream crossings on such trails cause sediment disturbance, and oil residue pollution. Do not expand OHV trails in State Forests. This serves one special interest group at the risk of alienating others. We need quiet spaces in our lives to enjoy safely.

Lastly, noise pollution is real and affects all living creatures including you. The quality of life goes down with excess noise and gas fumes. Thank you for taking the time to read my comments. We typically support the forest service but in this we cannot.

To whom it may concern:

I am a mountain biker and Maryland resident who enjoys visiting the western part of the state for its unique outdoor experiences. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

Western Maryland is becoming an increasingly attractive destination for mountain bikers because of places like Deep Creek Lake and Herrington Manor. More mountain bike and multi-use trails in the region could make Western Maryland a premiere riding area for locals and visitors from other states. Outdoor recreation tourism helps bolster the local economy. Visitors like myself also patronize hotels, restaurants, grocery stores, and other local businesses. In 2019, tourism brought in over \$25 million in direct consumer taxes for Western Maryland.

Green Ridge State Forest, the largest state forest property in all of Maryland, has only 12 miles of trail open to mountain bikes versus over 50 miles of hiking trails. The existing mountain bike trail also needs some repairs. Please upgrade the current trail in Green Ridge and add more riding opportunities, either by making more Green Ridge trails multi-use or adding new bike trail. These construction and maintenance proposals will expand ride options in the region, provide a well-rounded ride experience for mountain bikers of all abilities, and help alleviate crowded trails especially at peak season.

Additional mountain biking trails is an investment in youth sports. New trails will provide more training areas for student athletes including the Garrett County Composite team which is part of the National Interscholastic Cycling Association (NICA) Maryland league.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

Hi dnr

Have you ever thought about reforesting the route fifty median strip. From the bay bridge to ocean city. It's all state land.

And it would be terrific to implement a plan to plant that vast area with indigenous trees and maybe even some ornamentals.

Many states, South Carolina. North Carolina Georgia, unprogressive states have undertaken this effort, they look at their highways as beautiful public corridors.

This could be a great step forward and I'll bet you could get prisoners to do the planting, they are capable of doing more than just picking up trash. They'd love the connection to the land. And they'd be willing to take in the danger factor of working in traffic.

I'd be happy to do the design, I'm an Architect with loads of landscape design experience. I think we owe it to our state travelers to create a beautiful corridor. Don't you ?

Please call if you'd like to discuss this project. It's an easy win for everyone.

Dear Maryland DNR,

Me, my two kids (aged 9 and 6) and my wife are mountain bikers and Maryland residents who enjoy visiting the western part of the state for its unique outdoor experiences. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

Western Maryland is becoming an increasingly attractive destination for mountain bikers because of places like Deep Creek Lake and Herrington Manor. More mountain bike and multi-use trails in the region could make Western Maryland a premiere riding area for locals and visitors from other states. Outdoor recreation tourism helps bolster the local economy. Visitors like myself also patronize hotels, restaurants, grocery stores, and other local businesses. In 2019, tourism brought in over \$25 million in direct consumer taxes for Western Maryland.

Green Ridge State Forest, the largest state forest property in all of Maryland, has only 12 miles of trail open to mountain bikes versus over 50 miles of hiking trails. The existing mountain bike trail also needs some repairs. Please upgrade the current trail in Green Ridge and add more riding opportunities, either by making more Green Ridge trails multi-use or adding new bike trail. These construction and maintenance proposals will expand ride options in the region, provide a well-rounded ride experience for mountain bikers of all abilities, and help alleviate crowded trails especially at peak season.

Additional mountain biking trails is an investment in youth sports. Our kids love riding out in Maryland's nature, where they develop athletic skills and an appreciation for our state's nature! New trails will provide more training areas for student athletes including the Garrett County Composite team which is part of the National Interscholastic Cycling Association (NICA) Maryland league.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

To whom it may concern:

I am a mountain biker and Maryland resident who enjoys visiting the western part of the state for its unique outdoor experiences. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

Western Maryland is becoming an increasingly attractive destination for mountain bikers because of places like Deep Creek Lake and Herrington Manor. More mountain bike and multi-use trails in the region could make Western Maryland a premiere riding area for locals and visitors from other states. Outdoor recreation tourism helps bolster the local economy. Visitors like myself also patronize hotels, restaurants, grocery stores, and other local businesses. In 2019, tourism brought in over \$25 million in direct consumer taxes for Western Maryland.

Green Ridge State Forest, the largest state forest property in all of Maryland, has only 12 miles of trail open to mountain bikes versus over 50 miles of hiking trails. The existing mountain bike trail also needs some repairs. Please upgrade the current trail in Green Ridge and add more riding opportunities, either by making more Green Ridge trails multi-use or adding new bike trail. These construction and maintenance proposals will expand ride options in the region, provide a well-rounded ride experience for mountain bikers of all abilities, and help alleviate crowded trails especially at peak season.

Additional mountain biking trails is an investment in youth sports. New trails will provide more training areas for student athletes including the Garrett County Composite team which is part of the National Interscholastic Cycling Association (NICA) Maryland league.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

Hi,

I'm a mountain biker and Maryland resident who enjoys visiting the western part of the state for its unique outdoor experiences. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

Western Maryland is becoming an increasingly attractive destination for mountain bikers because of places like Deep Creek Lake and Herrington Manor. More mountain bike and multi-use trails in the region could make Western Maryland a premiere riding area for locals and visitors from other states. Outdoor recreation tourism helps bolster the local economy. Visitors like myself also patronize hotels, restaurants, grocery stores, and other local businesses. In 2019, tourism brought in over \$25 million in direct consumer taxes for Western Maryland.

Green Ridge State Forest, the largest state forest property in all of Maryland, has only 12 miles of trail open to mountain bikes versus over 50 miles of hiking trails. The existing mountain bike trail also needs some repairs. Please upgrade the current trail in Green Ridge and add more riding opportunities, either by making more Green Ridge trails multi-use or adding new bike trail. These construction and maintenance proposals will expand ride options in the region, provide a well-rounded ride experience for mountain bikers of all abilities, and help alleviate crowded trails especially at peak season.

Additional mountain biking trails is an investment in youth sports. New trails will provide more training areas for student athletes including the Garrett County Composite team which is part of the National Interscholastic Cycling Association (NICA) Maryland league.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

I am a mountain biker and Maryland resident who enjoys visiting the western part of the state for its unique outdoor experiences. I'm writing in support of the proposed mountain biking trails included in the FY 2024 Annual Work Plans of the Green Ridge, Savage River, and Potomac-Garrett State Forests. I am in favor of six new miles of singletrack between Herrington Manor and Swallow Falls State Parks, five new miles of new singletrack in Savage River Forest, and an upgrade of the 5.5-mile Margraff Plantation loop, as proposed in the annual work plans.

Western Maryland is becoming an increasingly attractive destination for mountain bikers because of places like Deep Creek Lake and Herrington Manor. More mountain bike and multi-use trails in the region could make Western Maryland a premiere riding area for locals and visitors from other states. Outdoor recreation tourism helps bolster the local economy. Visitors like myself also patronize hotels, restaurants, grocery stores, and other local businesses. In 2019, tourism brought in over \$25 million in direct consumer taxes for Western Maryland.

Green Ridge State Forest, the largest state forest property in all of Maryland, has only 12 miles of trail open to mountain bikes versus over 50 miles of hiking trails. The existing mountain bike trail also needs some repairs. Please upgrade the current trail in Green Ridge and add more riding opportunities, either by making more Green Ridge trails multi-use or adding new bike trail. These construction and maintenance proposals will expand ride options in the region, provide a well-rounded ride experience for mountain bikers of all abilities, and help alleviate crowded trails especially at peak season.

Additional mountain biking trails is an investment in youth sports. New trails will provide more training areas for student athletes including the Garrett County Composite team which is part of the National Interscholastic Cycling Association (NICA) Maryland league.

Thank you for the opportunity to comment on the Annual Work Plans. I look forward to seeing more mountain bike trails in Western Maryland.

The Mid-Atlantic Off Road Enthusiasts (MORE) is pleased to have to opportunity to provide input on the FY24 State Forest Annual Work Plans for Green Ridge, Savage River, and Potomac-Garrett State Forests. I am Dave Magill MD Advocacy Director for MORE, a primarily volunteer run organization.

MORE is the premier mountain biking and trail-building advocacy club in the Mid-Atlantic region of D.C., Maryland, and Virginia. MORE's mission is to build an inclusive mountain biking community and to increase access to natural-surface trails throughout the region for all riders (and for all non-motorized users).

Founded in 1992, MORE has advocated for natural-surface trails throughout the DC-MD-VA area and has helped build an impressive network of multi-use trails and a strong community of trail users. MORE maintains over 800 miles of natural-surface trails in over 60 state, county, federal and city parks and forests in Maryland, Virginia, and Washington, D.C., building on the work of hundreds of MORE volunteers and over 15,000 volunteer hours annually. Beyond trail building and advocacy, MORE works with the community to successfully manage multi-use natural surface trails, and hosts ride events and group rides for kids and adults.

MORE is probably best known to the State Forest service through our decades of volunteer work at Cedarville State Forest. MORE members hand-built many of the trails at Cedarville, and continue to maintain them. Over the last few years, our territory where we provide volunteer services has been expanding west, to include Washington and Allegheny Counties. Many of our members also travel to Garrett county for its recreational opportunities. As a result, our club has a great interest in seeing an expansion of natural surface, public, multi-use trails open to bikes and other non-motorized users in the state forests throughout Maryland.

We are very pleased to see the following included in your work plans:

Six new miles of professionally designed and constructed singletrack between Herrington Manor and Swallow Falls State Parks

Five new miles of professionally designed and constructed singletrack in Savage River State Forest An upgrade of the 5.5-mile core loop at the Margraff Plantation

We ask that you keep looking for opportunities to grow trail recreation even more in these state forests. Forestry management and trail-based recreation have proven to be very compatible throughout the US, and enhancing recreation enhances support for forestry budgets in general.

We believe these are some key points for your consideration:

Western Maryland is becoming an increasingly attractive destination for mountain bikers because of places like Deep Creek and Herrington Manor. The proposed additional trails will not only expand the ride options in the region but also provide a well-rounded ride experience for mountain bikers of all abilities.

Additional trails in Green Ridge, Savage River, and Potomac-Garrett State Forests will help alleviate crowded trails especially at peak season in Deep Creek and Herrington Manor.

Green Ridge State Forest, the largest state forest property in all of Maryland, has only 12 miles of trail open to mountain bikes, vs 50+ miles of hiking trails. And the existing mountain bike trail can use some fixing up. Please upgrade the current trail and add more riding opportunities, either by making more Green Ridge trails multi-use or adding new trail.

Additional mountain biking trails are an investment in youth sports. New trails will provide more training areas for student athletes including the Garrett County Composite team which is part of the National Interscholastic Cycling Association (NICA) Maryland league.

More trails and a wider range of ride experiences will allow for more races and events to take place in the area.

Tourism is a big part of the region's economy. Visitors who engage in outdoor recreation also support hotels, resorts, restaurants, and other local businesses. In 2019, tourism brought in over \$25 million in direct consumer taxes for Western Maryland.

Again, thank you for the opportunity to comment and we look forward to continuing and growing MORE's partnership with DNR on state forest lands.

Hi all,

First i support and am a member of the MD OHV alliance.

As a long time OHV enthusiast, the OHV trail proposal is a step in the right direction at Saint John's Rock (SJR) in Savage River Forest. The OHV Title Tax Fund was designed specifically for the creation and maintenance of trails, and this is exactly in line with the given intent. I look forward to this growth at SJR and want it to continue to provide an equal and comparable facility to Wolf Den Run State Park, with an equal diversity in trail types.

I urge you to utilize this fund in other State-owned Forestry land where OHV access is limited or nonexistent, like the Eastern Region Forests.

Hello,

As a long time OHV enthusiast, the OHV trail proposal is a step in the right direction at Saint John's Rock (SJR) in Savage River Forest. The OHV Title Tax Fund was designed specifically for the creation and maintenance of trails, and this is exactly in line with the given intent. I look forward to this growth at SJR and want it to continue to provide an equal and comparable facility to Wolf Den Run State Park, with an equal diversity in trail types.

I urge you to utilize this fund in other State-owned Forestry land where OHV access is limited or nonexistent, like the Eastern Region Forests.

Hi, I live near the savage river state forest and spend a lot of time outdoors in Allegany and Garrett county. It would be fantastic is the St. Johns rock ORV trails would allow non motorized mountain bikes. Especially since they are developing trails for electric bikes. The eastern part of Garrett County has minimal hiking/biking dual purpose trails, and I would love to see more in the savage river state forest up on Big Savage itself. Thank you for your time.

The trails at Snaggy Mountain, Garrett Forest have been a great addition to trails in Garrett County and much needed.

We have a lot of people we take out mountain bike riding and those trails are perfect for all skill levels. Every time we ride in Garrett Forest there are people using them. I have seen cross-country skiers, hikers, Horse back riders and bikers enjoying those trails year round. Great job!!

It would be nice to add more trails in the Snaggy Mountain area

It would also be nice to repair and improve the trails at the Margraff Trail System.

The trails at Margraff are in really bad shape and it would be nice to build more trails there or a bike park.

We just got back from a group biking trip to Missouri, Arkansas, and Kentucky and they have some incredible trail systems that people like us travel to too ride.

Our area (Garrett County) is perfect for trails and would be a great mountain bike destination.

We rode a trail system in Missouri called the Two Rivers Bike Park and it was in the middle of no where. There were about forty people riding there on a week night. Thursday morning I showed up for our ride at 7 am and there were already people there hiking and biking.

They even had an area for strider bikes for the kids.

You all have been doing a great job with trails in Garrett county lately. When we first moved here we had to travel to ride now we have some world class trails right here in our backyard.

We have seen license plates on vehicles from all over the country at the trail heads so our trails are bringing people to our area.

Thanks, and keep up the great trail work!

Hello

As an avid mountain biker in Garrett county I have enjoyed the addition of the new trails in Garrett state forest. It has been a much needed more beginner area in addition to our local trail system that is typically more suited for more advanced and technical riders. Within the garrett state forest it would be nice to see more single track trails connecting Herrington and Swallow falls parks. The 5.5 trail is also in need of some bridge repair and possible reroutes in severely eroded areas.

It would also be great if the margroff trails system could be brought back to life. This area was well used and enjoyed by many bikers and hikers until the logging ruined many parts of the trail. Could new trails be added around logged areas where no timbering will be scheduled?

thanks for time and consideration

I thought of you when I read this article. I hope you will take the time to read it and consider taking Maryland State forests in this direction.

https://www.dnr.wa.gov/news/dnr-launches-first-nation-carbon-project-protecting-forests-and-creating-over-million-carbon

In summary, the Washington State DNR director, Hilary Franz, decided that instead of harvesting their state forests they would let them grow and store carbon, resulting in payments of millions of dollars to the state. As you know, our state forests don't bring in much income beyond the costs of harvesting and forestry department salaries. Instead of 'business as usual' I hope you will bring Maryland into the future and consider carbon income instead.

Some think we can't do this because need to keep the forestry industry alive in Maryland. But all things considered, the state forests are just a small part of this industry (10%?), which doesn't actually employ many people. Private forests will continue to be cut, keeping the industry alive.

Thank you for taking the time to read the article.

Hi,

As a long time OHV enthusiast the OHV trail proposal is a step in the right direction at Saint John's Rock in Savage River Forest. The OHV title Tax fund was designed specifically for the creation and maintenance of trails, and this is exactly inline with the given intent. I look forward to this growth and want it to continue to provide an equal and comparable facility to Wolf Den Run State Park. With an equal diversity in trail types.

I urge you to utilize this fund in other State-owned Forestry land where OHV access is limited or nonexistent, like the Eastern Region Forests.

Thank you for considering the proposal to expand the ORV trail network at the St. Johns Rock road area. I would certainly welcome such an addition to expand the area responsibly, and I am impressed with the cooperation between the Maryland DNR and the Maryland OHV Alliance. Together we have opened two new legal riding areas in an area otherwise absent of trail riding opportunities. I, for one, would prefer to spend my money in the state of Maryland to support local ORV and the associated businesses that can profit from continued responsible use of our natural resources. Admittedly, it would be great if something a bit closer to central Maryland was available, as well as the Eastern Shore area. Again, thank you for all that you do for our community.

As a long time OHV enthusiast, the OHV trail proposal is a step in the right direction at Saint John's Rock (SJR) in Savage River Forest. The OHV Title Tax Fund was designed specifically for the creation and maintenance of trails, and this is exactly in line with the given intent. I look forward to this growth at

SJR and want it to continue to provide an equal and comparable facility to Wolf Den Run State Park, with an equal diversity in trail types.

I urge you to utilize this fund in other State-owned Forestry land where OHV access is limited or nonexistent, like the Eastern Region Forests.

The OHV trail proposal is a step in the right direction at Saint John's Rock (SJR) in Savage River Forest. The OHV Title Tax Fund was designed specifically for the creation and maintenance of trails, and this is exactly in line with the given intent. I look forward to this growth at SJR and want it to continue to provide an equal and comparable facility to Wolf Den Run State Park, with an equal diversity in trail types.

Specifically St John's Rock needs to be expanded to include trails for full-size vehicles. At a minimum, the outer existing trails on the loops should be widened.

I would like to submit an application to be a member of the Maryland Department of Natural Resources for Maryland forests long term management.

Hi,

As a long time OHV enthusiast (Jeep wrangler owner), the OHV trail proposal is step in the right direction at Saint John's Rock (SJR) in Savage River Forest. The OHV Title Tax Fund was designed specifically for the creation and maintenance of trails, and this is exactly in line with the given intent. I look forward to this growth at SJR and want it to continue to provide an equal and comparable facility to Wolf Den Run State Park, with an equal diversity in trail types.

I urge you to utilize this fund in other State-owned Forestry land where OHV access is limited or nonexistent, like the Eastern Region Forests.

I live in Prince George county (Temple Hills), and its a long drive over to Western Maryland when I want to drive my jeep on trails. My last trip to Wolf Den we were there open to close. It was a fun day, but a very long one due to the 3+ hour drive. (We left at 6am and returned home at 8pm). Having deticated trails on the easter side of the state would greatly cut down on the travel time and would make the day much more enjoyable and not as mentally draining due to the long drive to the trails, spending the day driving the trails, and then driving back home.

The staff at Wolfden were very nice, they provided us with maps and directions. The trails were maintained, and there were clean porta potties at both locations! As a female, I very much appreciated having a clean, dedicated space to use the restroom at the entrance to the trails.

"Hi,

As a long time OHV enthusiast, the OHV trail proposal is a step in the right direction at Saint John's Rock (SJR) in Savage River Forest. The OHV Title Tax Fund was designed specifically for the creation and maintenance of trails, and this is exactly in line with the given intent. I look forward to this growth at SJR and want it to continue to provide an equal and comparable facility to Wolf Den Run State Park, with an equal diversity in trail types.

I urge you to utilize this fund in other State-owned Forestry land where OHV access is limited or nonexistent, like the Eastern Region Forests.

"Hello,

As a long time OHV enthusiast, the OHV trail proposal is a step in the right direction at Saint John's Rock (SJR) in Savage River Forest. The OHV Title Tax Fund was designed specifically for the creation and maintenance of trails, and this is

exactly in line with the given intent. I look forward to this growth at SJR and want it to continue to provide an equal and comparable facility to Wolf Den Run State Park, with an equal diversity in trail types.

I urge you to utilize this fund in other State-owned Forestry land where OHV access is limited or nonexistent, like the Eastern Region Forests.

I have to travel to Pennsylvania and West Virginia to enjoy OHV trails that are worth the drive.

I would love to be able to stay local to my state and spend my money locally to enjoy OHV activities.

I believe this is a good thing. I'm about to go out to state den to go off road for the first time. Not many people know about it. I live out in Harford county and a lot of people out here are always looking for a place like this to enjoy the beautiful lands that God has provided for us. This also allows people to go off road and do it legally as long as they leave it as they found it or better.

It would be nice if we could find a suitable legal place near Harford County and maybe one day DNR will work with us to find that place, but for now I'm happy to see this is coming together for us to enjoy in state forests.

Hello,

As a long time OHV enthusiast, the OHV trail proposal is a step in the right direction at Saint John's Rock (SJR) in Savage River Forest. The OHV Title Tax Fund was designed specifically for the creation and maintenance of trails, and this is exactly in line with the given intent. I look forward to this growth at SJR and want it to continue to provide an equal and comparable facility to Wolf Den Run State Park, with an equal diversity in trail types. I am particularly interested in seeing the creation of new trails or expansion of existing trails to accommodate full size 4x4 vehicles, like Jeeps and other SUVs.

I urge you to utilize this fund in other State-owned Forestry land where OHV access is limited or nonexistent, especially those on the Eastern Shore.

Good day;

Excellent work being done by your colleagues at the Maryland Forest Service.

As a long time OHV enthusiast, the OHV trail proposal is a step in the right direction at Saint John's Rock (SJR) in Savage River Forest. The OHV Title Tax Fund was designed specifically for the creation and maintenance of trails, and this is exactly in line with the given intent. I look forward to this growth at SJR and want it to continue to provide an equal and comparable facility to Wolf Den Run State Park, with an equal diversity in trail types.

I urge you to utilize this fund in other State-owned Forestry land where OHV access is limited or nonexistent, like the Eastern Region Forests.

Hi,

As a long time OHV enthusiast, the OHV trail proposal is a step in the right direction at Saint John's Rock (SJR) in Savage River Forest. The OHV Title Tax Fund was designed specifically for the creation and maintenance of trails, and this is exactly in line with the given intent. I look forward to this growth at

SJR and want it to continue to provide an equal and comparable facility to Wolf Den Run State Park, with an equal diversity in trail types.

I urge you to utilize this fund in other State-owned Forestry land where OHV access is limited or nonexistent, like the Eastern Region Forests.

The Wolf Den Run State Park has already drawn lots of people to the area and Saint Johns Rock has the same opportunity, although I think it missed the mark the first time around. I strongly support additional resources being utilized to improve this recreational OHV area, to include more opportunities for full-size (Jeep) OHV enthusiasts.

I'll also add that you're sitting on other areas that could easily be opened for this use as well. Closed trails in Green Ridge State Forest and Potomac State Forest could be opened up with immediately attract recreational users to these areas.

I would also encourage you to consider how volunteer groups such as the Maryland Off Highway Vehicle Alliance could best be utilized to help improve or maintain areas such as this.

Hello,

Thank you for publishing the State Forest Annual Work Plans. I'm encouraged to see the attention given to Recreational Activities, and one of the reasons I purchase an annual pass. Please continue to protect camping in all the State Forests and consider adding more to the Eastern Region Forest Lands. As an enthusiast of ORV driving I would like to also encourage the development of the St.Johns Rock trails. Especially to support full sized vehicles. Overlanding and vehicle based camping/travel is growing and expansion of the trail would support that activity. Maybe even consider connecting SJR to Wolf Den Run via an off-highway full size vehicle trail with camping along the way. Not a lot needs to be done to the trails. The pictures you included in the Savage River plan for the SJR trail before and after showed a lot had been done to the trail. Besides widening the trail, rough terrain would be fine and more welcome for the ORV. With that, I would also like to recommend planning for a Backcountry Discovery Route. I've noted that there is a small piece that goes through Maryland (ridebdr.com), but it could definitely be expanded. The Daniel Boone Back Country Byway (sfwda.org/dbbb) is a great example.

Hi,

As a long time OHV enthusiast, the OHV trail proposal is a step in the right direction at Saint John's Rock (SJR) in Savage River Forest. The OHV Title Tax Fund was designed specifically for the creation and maintenance of trails, and this is exactly in line with the given intent. I look forward to this growth at SJR and want it to continue to provide an equal and comparable facility to Wolf Den Run State Park, with an equal diversity in trail types.

I urge you to utilize this fund in other State-owned Forestry land where OHV access is limited or nonexistent, like the Eastern Region Forests.



PO Box 21 Easton, MD 21601 oldgrowthforest.net info@oldgrowthforest.net

Dear Secretary of Natural Resources for the Maryland Department of Natural Resources,

We are writing in response to the **Eastern Region State Forest Lan**ds Annual Work Plan, Fiscal Year 2024. (Chesapeake and Pocomoke State Forests)

Once again, the process of notification regarding the AWP is inadequate.

Every year we try to make comments but are never notified of the release of the AWP. When we questioned the notification process, we were told that a press release went out, but what if the press never picks it up? More of an effort should be made to inform interested parties and the public. We suggest a specific mailing list for interested parties, such as the Dept. of Fisheries utilizes.

We have found several items in the plans that we feel should be changed:

Comments regarding the Silvicultural Plans

In the <u>Silvicultural</u> section, your consideration of so many forests as 'overstocked' shows an industrial mindset in your attitude toward our state forests. Always aiming for the proper 'stocking' according to the industry's charts will keep our forests immature, and depauperate in species. We hope our state foresters are trying to increase the average age of our state forests instead of keeping them so young. some of the most beautiful forests we have been to, including, Muir Woods, Swallow Falls, and Schoolhouse Woods, are ALL considered 'overstocked.' Shall we cut them to correct this? We hope not!

General comments about the silvicultural plan maps:

- 1. Old-growth buffer areas and Wildlands should be shown on the plans, as they are for the Potomac-Garrett plans.
- 2. GIS coordinates and location maps should also be shown, as they are in the Potomac-Garrett plans. For a citizen to find the actual location of the planned silvicultural activities without these is very, very difficult.



PO Box 21 Easton, MD 21601 oldgrowthforest.net info@oldgrowthforest.net

Silvicultural work that should be removed or modified from the Annual Work Plan:

C-24-S-11

This site is on Old Bradley Rd., near where it intersects with Riverton Rd., where the road takes a sharp turn across from a farmhouse. It abuts the wetlands of the Nanticoke River. There is a small stream (not Grimes Creek but a tributary?) that abuts the planned harvest along the northeast side (where 95% of the forest is slated for removal). Neither this stream, nor its buffer, are shown on the plans. The margins of this forests, where it hasn't been thinned contain a globally rare Atlantic White Cedar community. Besides many Atlantic White Cedar there are many large oaks and large native pines ion the buffer. We suggest that the FSC audit team visit this location and inspect this buffer (not shown on the plans). A more generous, uncut, buffer around this cut would make a nice recreational trail to connect to the Tom Tyler trail nearby.

P-24-S-01 & C-24-S-12

These two adjacent stands are very difficult for the public to access and comment on; but they have some of the tallest and oldest trees on state land in the Twigg-Fooks Complex. Other stands in the area, that are not in wetlands, have already been harvested and are cleared or are very young. For that reason, we think these stands should remain uncut.

P-23-S-05

We were very disappointed to see that this harvest abuts one of our most important recreational trails – the Old Furnace Town Yellow Trail. Already this trail is largely surrounded by 'dog hair' pine (small pines very close together) due to past cutting by the MD Forest Service. The section planned for 2024 harvest is very important aesthetically. Outdoor tourism and recreation are a very important economic driver in our region, and this should be recognized and respected. We request that you remove this harvest from the work plan.

Comments regarding other sections of the plan

Pg 4-5. The section on <u>Historic Forest Clearing and Fire History</u> is out of date. Please do *current research* (newer than twenty-five years old) to learn more. In particular, the AWP states, "Since it is unlikely that lightning was a significant contributor to these fires, Native American populations must have been." There is no evidence to support this claim, and a more recent paper, specifically addressing the coastal plain, notes that this is an outright myth (Noss et al. 2014). You may access this paper here: <u>https://onlinelibrary.wiley.com/doi/10.1111/ddi.12278</u>



PO Box 21 Easton, MD 21601 oldgrowthforest.net info@oldgrowthforest.net

Pg 5. Notes, "The large patches of pine-dominated woods today are largely second growth, the result of extensive clearing in historic times." This should be changed to "...historic and contemporary times." Our continued clearing has kept the forests in a pine-dominated condition.

Pg. 6. Under <u>Desired Future Conditions</u> you write that the desired condition is "a transition between the former industrial forest management and the future multiple-purpose management." To reach this condition we suggest you stop relying on the stocking charts that guide industrial forest management. We would like to see more of the Eastern Region pine forests be allowed to mature naturally without thinning.

Pg. 7. A fallacy in your management is the assumption that clearing pines will result in hardwood growth. It is much more likely that clearing pines will result in more, and younger, pines.

Pg. 8. The first sentence under <u>Forested Riparian Buffers</u> is incomplete. It reads: "Minimum three hundred foot (300 ft.) riparian forest buffers or wetland buffers will be marked, established and maintained according to the guidelines listed in." we would like to read those guidelines but don't know where to go to find them.

Pg. 12. The fiscal year is wrong.

Pg. 15. We are concerned with what we read in the <u>Special Wildlife Habitats Projects</u> section. There it states:

1. Initial site review and selection for possible quail management and habitat restoration.

2. Planning and execution of the early successional habitat project on the Foster tract with prescribed burning and targeted herbicide applications continues.

3. Continued collaboration with the bobwhite quail habitat improvement public/private partnership project

All of these statements suggest you are planning to cut forests specifically for quail.

If quail are so threatened, and so important that the state is planning to cut forests for them, then why does the state have hunting regulations that allow six per day to be killed on private land? We object to any cutting of public forests for quail. The state land already contains 4.5 percent early successional habitat. This is higher than the estimated natural value of 1-2 percent. Please read this paper to learn more about this:

https://www.frontiersin.org/articles/10.3389/ffgc.2022.1073677/full



PO Box 21 Easton, MD 21601 oldgrowthforest.net info@oldgrowthforest.net

Pg 17. Under <u>Definitions</u>, we object to the use of the terms "improving the health of the stand" and "to facilitate forest health" and "ensuring a healthy and vigorous forest condition" when describing management techniques. These phrases are vague. The term 'health' is not defined and there is no scientific proof that these management activities improve forest 'health.' If you have proof, please cite it. Most scientific evidence leans in the opposite direction: management activities are shown to cause a decline in biodiversity, tree age, tree size, and carbon storage. Many people consider these things indicators of health. It is best to leave propaganda-like vocabulary out of the work plans.

Pg 17. The <u>Definition</u> for Second Commercial Thinning states that cutting of 25-30% of the stand is done, in part, to "improve habitat for Forest Interior Dwelling Species (FIDS)." This claim is dubious and should have a citation to back it up.

Pg. 18. In the <u>Definition</u> section, under Aerial Release Spraying, you mention "An aerial spray of herbicide is used to reduce undesirable hardwood species (i.e. sweet gum & red maple) within the stand." Sweet gum and red maple are both important native species in this region. Sweet gums and red maples feed many, many wildlife species including Luna Moths and Cardinals. Why would you consider them <u>undesirable</u> on our public lands? We object to herbicide spraying of native species in our public forests.

Pg. 14. We are pleased to see the increase in <u>Recreation Projects</u>. The new trails are beautiful and will continue to gain in popularity. They add to the quality of life in this area. However, we are disappointed to see a harvest planned that abuts one of the important recreational trails (P-24-S-05).

Pg. 45. In the <u>Budget</u> section (pg. 45), instead of listing "General' under funding sources, it would be clearer to list "Maryland State" as the contributor of \$439,000. If Timber revenue is \$1,100,000 per year; and we pay \$981,034 in payments to loggers for harvesting and delivering forest products to processing mills (and that doesn't include what we pay the state employees to manage these contracts), it seems the state would make much more money, and create a more lovely landscape, by earning carbon credits instead of cutting trees down. Washington State is an excellent example of how this could be done. Here is a description of their project:

https://www.dnr.wa.gov/news/dnr-launches-first-nation-carbon-project-protecting-forests-andcreating-over-million-carbon

Pg. 51. The <u>Works Cited</u> section is embarrassingly sparse and outdated. The *most recent* reference you have is twenty-five years old. A great deal has been learned in that time!

For the forests,

Dr. Joan Maloof Founder of the Old-Growth Forest Network

Tom Horton Environmental Studies Professor at Salisbury University Page 61 of 101



PO Box 21 Easton, MD 21601 oldgrowthforest.net info@oldgrowthforest.net

Matt Pluta Choptank Riverkeeper, ShoreRivers, Inc.

Joy Chambers Old-Growth Forest Network County Coordinator for Anne Arundel County Trustee of Annapolis Opera Trustee of The Mitchel Art Museum of St. John's College

Patricia G. Tice MS Field Ecology, Rutgers University "Hemlock Forest Communities in Northern New Jersey" 1976

Deborah Boggs

Lillie Olson

Catherine Beise

Kayla Green

Ron Boyer

Michael Broder

Monique Mehring

MARYLAND ORNITHOLOGICAL SOCIETY



Maryland Department of Natural Resources 580 Taylor Avenue Tawes State Office Building Annapolis, MD 21401 Email: <u>stateforests.dnr@maryland.gov</u>

Re. 2024 Draft Work Plans for Maryland's Four State Forests

On behalf of the Maryland Ornithological Society (MOS), I wish to thank DNR for the opportunity to submit comments on the four 2023 draft work plans for Maryland's state forests. Our comments are as follows.

Eastern Region (Chesapeake/Pocomoke State Forest)

We commend the authors on the wealth of information in this plan, including vegetation types and the history of these forests.

We approve of the continuing measures to enhance habitat favored by forest interior birds (FIDs). We are pleased to see that bird watching is mentioned under recreational activities. We are glad to see that there is continued focus on the conservation of the Delmarva Fox Squirrel, but are concerned that proposed monitoring of bees and butterflies appears to have been dropped, aside from monitoring of Lupin and Frosted Elfin in the Furnace Tract (page 51). We applaud the plan for its inclusion of control of invasive species of plants, notably Phragmites.

We oppose the suggested expansion of off-highway vehicle (OHV) access to Eastern Region State Forests. MOS is not opposed to OHVs in principle. We use them ourselves. But while visiting public lands in other states, MOS members have seen the impacts of OHVs against wildlife habitat. They witnessed riparian vegetation beaten down by the passage of OHVs. They also witnessed a stream polluted by engine oil where OHVs crossed and re-crossed the stream. The noise of OHVs spoils the quiet enjoyment of forests by hunters, fishermen, birders, and other wildlife enthusiasts. We believe that expanded OHV access would be exclusive of other public users the Eastern Forests.

Greenridge State Forest

We would have preferred to see a more detailed plan. Bird watching is not mentioned at all as a recreational activity. Despite this omission, Green Ridge State Forest is visited by birders for its notable birds, as evidenced by having no less than fourteen eBird hotspots. We ask that birdwatching be included as a recreational activity, but do note that the 2024 plan for Greenridge acknowledges the presence of "a wide variety of neo-tropical migrants." We are pleased to see that plans are being made to remove invasive trees and shrubs along Town Creek.

As above in the comments on Eastern State Forests, we oppose the suggestion of extending OHV access to Greenridge State Forest. Briefly, OHVs spoil the enjoyment of the forests by all other users.

Savage River State Forest

We are pleased to see that the plan objectives for forest conservation will seek to "protect significant or unique natural communities and elements of biological diversity, including Ecologically Significant Areas, High Conservation Value Forests and old growth Forests. Old growth forest management serves to restore and/or enhance old growth forest structure and function" and maintain and enhance diversity of wildlife and habitat types.

We ask that bird-watching be listed among the Recreation Opportunities. MOS members and other birders already visit it for its rich assemblage of forest interior and other birds. This is evidenced by there being at least least eight eBird Hotspots in Savage River NF. Our members will be visiting some of those hotspots during our 75th Annual Convention May 19-21., 2023.

We are glad to learn of the continuing study of wood turtle populations. And we applaud the proposed passive acoustic monitoring of bird migration in the Appalachians. We similarly applaud the effort to control four non-native plant species as well as the wooly adelgid.

This forest is being maintained for multiple users, most of which are mutually compatible. The notable exception is the OHV user. This noisy form of recreation is disturbing to all who visit the forest to enjoy its peace and tranquility. Furthermore, OHVs can interfere with bird nesting and disturb other forms of wildlife. We note that there are already OHV trails at Meadow Mountain, East Shale Road, Margraff Plantation, Negro Mountain and the newly opened ones at St. John's Rock and the Wolf Den Run State Park.

The current plan for St. John's Rock includes evaluating up to over 4 miles of existing timber harvest infrastructure for conversion to OHV trails, and an additional 5-6 miles for motorcycle and electric bicycles. While we do not object to improvements on existing OHV trials, we oppose extension of trails as being incompatible with other public uses. We note that St. John's Rock is among the eBird hotspots.

An additional 5 miles of OHV trails are envisioned at Margraff Plantation, to be added to the existing 5.5 miles. The plan notes that the existing trails are in need of reinvigoration, so that alone would result in a net gain of 5.5 miles. We do not think a virtual doubling of trail length here would be supportive of shared usage of the public lands.

www.mdbirds.org

Potomac and Garrett State Forests

Once more we commend the Plan's objective to protect significant or unique natural communities and biodiversity, such as ecologically significant areas, high conservation value forests, and old growth forests, and efforts to enhance old growth. We applaud efforts to maintain and enhance diversity of wildlife species and habitat types, as well as control invasive plants.

We are particularly pleased to see Bird Watching now listed among the Recreational Opportunities, and that MOS is credited with pointing out the six eBird hotspots.

We commend the plan for its concern for rare and uncommon breeding birds and the ongoing efforts to control certain invasive plant species.

As we have noted above, Potomac/Garrett, and the other forests, are being maintained for multiple users, most of which are mutually compatible. The sole exception is OHV use. This noisy form of recreation is disturbing to all others who visit this forest. Furthermore, OHVs can interfere with bird nesting and disturb other forms of wildlife. We are pleased to see that there is no discussion of expanding OHV use in the Plan, with funding only for sustainability improvements and amenities of the already-existing OHV trails Snaggy Mountain Road, Piney Mountain Road, Laurel Run Road, Wallman Road, and Burkholder Road.

In closing, please note that MOS is a volunteer Maryland organization founded in 1945. We have approximately 1800 members, divided into 15 chapters. MOS is devoted to the enjoyment, study and conservation of wild birds and their habitats, with special focus on Maryland's birds.

We thank you for taking the time to consider our comments and ask that you contact me with any questions or responses to said comments.

Yours sincerely,

Bonnie Borsa President Maryland Ornithological Society

Kurt R. Schwarz Conservation Chair

www.mdbirds.org

Maryland Ornithological Society www.mdbirds.org 7329 Wildwood Ct. Columbia, MD 21046 410-461-1643 krschwa1@verizon.net

www.mdbirds.org

4

K. SILVICULTURAL PROJECTS

SILVICULTURAL ACTIVITY OVERVIEW

Tables 2 and 3 summarize the proposed silvicultural activities for the 2024 annual work plan on approximately 2,264.1 acres (3.0%) of the Chesapeake Forest and 404.2 acres (2.2%) of Pocomoke State Forest, for a total of 2,668.3 acres (2.8%) on both forests.

Activity	Acres
Pre-commercial thinning	40.0
First thinning	635.9
Second thinning	1521.5
Regeneration Harvest	66.6
Total	2264.1

Table 3. 2024 Pocomoke State Forest Silvicultural Activity Overview. (P-24-S-01 – P-24-S-05)

Activity	Acres
First thinning	307.1
Regeneration Harvest	80.9
Seed Tree Harvest	16.1
Total	404.2

DEFINITIONS OF SILVICULTURAL ACTIVITIES

- Reforestation Reforestation reestablishes forest cover either naturally or artificially (hand planting), and may be accompanied by some kind of site preparation during the same fiscal year. The nature of the site preparation will be determined by field examination. It is occasionally followed, in the same fiscal year, with grass control in the form of chemicals (hand-applied by ground crews). Site conditions will dictate application rates, etc., in each case.
- Site Preparation/Regeneration While natural regeneration is the preferred method of reforesting harvested areas, alternative plans should be in place in case natural regeneration is unsuccessful. Alternatives include prescribed burning, herbicide, light mechanical disturbance, or a combination thereof followed by planting of native pines and/or hardwoods as the management zone dictates.
- Pre-Commercial Thinning Pre-commercial thinning is the removal of trees to reduce overcrowded conditions within a stand. This type of thinning concentrates growth on more desirable trees while improving the health of the stand. This treatment is usually done on stands 6 to10 years of age. The number of trees retained will depend on growth, tree species present, and site productivity. This activity is conducted with hand held power tools and not heavy equipment, thereby reducing adverse impact to the soil.
- First Commercial Thinning Usually performed on plantations 20-25 years old. The objective is to facilitate forest health and promote development of larger trees over a shorter period of time. This is accomplished in plantations by removing every 5th row of trees and selectively thinning (poor form & unhealthy trees) between rows. In naturally regenerated stands, thinning corridors will be established

every 50 feet and the stand will be selectively thinned along both sides of the corridor. Approximately 30-40% of the total stand volume will be removed in this process. Stocking levels are determined using a loblolly pine stocking chart based on the basal area, DBH, and trees per acre of the stand (USDA Forest Service, 1986). Crown ratio and site index are other factors that are used to decide whether to thin or not.

- Second Commercial Thinning Usually performed on stands 35-40 years old. The objective is to lengthen the rotation age of the stand and produce larger, healthier trees. In some cases, this technique is used to improve habitat for the Delmarva Fox Squirrel (DFS) and Forest Interior Dwelling Species (FIDS). Approximately 25-30% of the total stand volume will be removed in this process.
- Selection Harvest This includes the removal of single trees and groups of trees within a given stand. This method will be used to distribute age classes and to adjust species composition within a given stand (i.e. riparian buffers, ESA, DFS & FIDS areas).
- Shelterwood Harvest The shelterwood method involves the gradual removal of the entire stand in a series of partial cuttings that extend over a fraction of the rotation (Smith, 1986). The number of trees retained during the first stage of the harvest depends on the average tree size (diameter at breast height) on the site. As with seed tree regeneration, the shelterwood method works best when overstory trees are more than 30 years old and in their prime period of seed production potential (Schulz, 1997).
- Seed Tree Harvest This type of harvest is designed to regenerate pine on the site by leaving 12 to 14 healthy dominant trees per acre as a seed source. The seed trees are typically left on the site for another rotation, but can be removed once sufficient pine regeneration is achieved. The seed tree method regenerates loblolly pine effectively and inexpensively in the Coastal Plain, where seed crops are consistently heavy (Schulz, 1997).
- Variable Retention Harvest This harvest type focuses on the removal of approximately 80 percent of a given stand in one cutting, while retaining approximately 20 percent as wildlife corridors/islands, visual buffers, and/or legacy trees. Coarse woody debris (slash/tree tops) is left evenly across the site to decompose. A Variable Retention Harvest (VRH) is prescribed to help regulate the forest growth over the entire forest, ensuring a healthy and vigorous forest condition. Harvesting of young loblolly pine stands is done to help balance the age class distribution across the forest. Currently, about 20% of the two forests is 19 years of age or younger. VRH are also used to regenerate mixed natural stands within ESAs, DFS & Core FIDS areas. The preferred method of regeneration is by natural seeding from adjacent stands, or from trees cut in the clearing operation. If adequate natural regeneration is not obtained within 3 years of the harvest, hand planting of the site is typically required (not required for certain restoration projects, such as bay restoration).
- Regeneration Harvest This type of harvest removes up to 95% of a stand in one cutting, while retaining at least 5% in green tree retention areas. Factors such as riparian areas, soil types, ecologically significant areas, snags, and legacy trees will determine the placement of green tree retention areas. Coarse woody debris (slash/tree tops) is left evenly across the site to decompose. A regeneration harvest is prescribed to help regulate the forest growth over the entire forest, ensuring a healthy and vigorous forest condition. Regeneration harvests are most typically implemented in General Management and ESA Zone 3 areas, but they can also be used to regenerate mixed natural stands within ESAs, DFS and Core FIDS areas. The preferred method of regeneration is by natural seeding from adjacent stands, or from trees cut in the clearing operation. If adequate natural regeneration is not obtained within 3 years of the harvest, hand planting of the site is typically required (not required for certain restoration projects, such as bay restoration).
- Aerial Release Spraying An aerial spray of herbicide is used to reduce undesirable hardwood species (i.e. sweet gum & red maple) within the stand. In many cases, a reduced rate (well below the

manufactures recommendation) is used. A reduced rate has been used on the CF successfully to kill the undesirable species while maintaining the desirable ones (yellow poplar & oaks). All forms of aerial spraying are based on precision GPS mapping and accompanied by on-board flight GPS controls. GPS-generated maps shows each pass of the aircraft and are provided by the contractor to demonstrate precision application. Aerial applications are not allowed in specially designated wetland areas or within 150 feet of riparian areas on the forest.

- Prescribed Fire Prescribed fires are set deliberately by MFS personnel, under proper weather conditions, to achieve a specific management objective. Prescribed fires are used for enhancing wildlife habitat, encouraging fire-dependent plant species, reducing fuel loads that feed wildfires, and prepare sites for planting.
- Riparian Buffer Zone Establishment Riparian buffer zones are vegetated areas adjacent to or influenced by a perennial or intermittent bodies of water. These buffers are established and managed to protect aquatic, wetland, shoreline, and/or terrestrial environments and ultimately the Chesapeake Bay. Boundaries of riparian buffer zones will be marked, surveyed (GPS) and mapped (GIS). Selective harvesting and/or thinning may occur in these areas to encourage a mixed hardwood-pine composition.

SILVICULTURAL PRESCRIPTIONS & STAND DATA

CAROLINE COUNTY

[CF-24-S-01]

Proposal Name: C05 – Holland – Stand 1 Harvest Area: 43.2 acres Forest Community Types and Development: Stand 1 is an overstocked loblolly pine plantation established in 1983 and first thinned in 2007. Habitats and Species of Management Concern: Stream Buffer and General Management Water Resources: Upper Choptank watershed, Mitchell Run Soil Resources: CoA, FaA, HbA, and HvA Historic Conditions: No known historic features Sivilcultural Prescription: Second thinning

DORCHESTER COUNTY

[CF-24-S-02]Proposal Name: D13 – Rhodesdale – Stand 9Harvest Area: 44.3 acresForest Community Types and Development: Stand 9 is a mature loblolly pine naturally regenerated and sprayedin 2000.Habitats and Species of Management Concern: DFS Core and Stream BufferWater Resources: Marshyhope Creek watershedSoil Resources: HvA, KgB, RsA, and RsBHistoric Conditions: No known historic features

Sivilcultural Prescription: First thinning, retain significant hard mast species

SOMERSET COUNTY

[CF-24-S-03]

Proposal Name: S30 – Hamlet – Stands 7, 10, 14, and 15
Harvest Area: 87.7 acres
Forest Community Types and Development: Stand 7 is an overstocked loblolly pine plantation established in 1987 and sprayed in 1990. Stand 10 is an overstocked loblolly pine plantation established in 2001. Stand 14 is an overstocked loblolly pine plantation established in 1991. Stand 15 is overstocked loblolly pine naturally regenerated in 2005 and pre-commercially thinned in 2014.
Habitats and Species of Management Concern: DFS Core
Water Resources: Manokin River watershed

Soil Resources: FgA, OKA, and QuA

Historic Conditions: No known historic features

Sivilcultural Prescription: First thinning, retain significant hard mast species

[CF-24-S-04]

Proposal Name: S30 – Hamlet – Stands 1, 4, 5, 6, 8, 12, and 13 **Harvest Area**: 478.6 acres

Forest Community Types and Development: Stand 1 is an overstocked loblolly pine plantation established in 1985, sprayed in 1990, and first thinned in 2007. Stand 4 is an overstocked loblolly pine plantation established in 1982 and first thinned in 2007. Stand 5 is an overstocked loblolly pine plantation established in 1983 and first thinned in 2007. Stand 6 is an overstocked loblolly pine plantation established in 1980, and first thinned in 2007. Stand 5 is an overstocked loblolly pine plantation established in 1983, sprayed in 1990, and first thinned in 2007. Stand 6 is an overstocked loblolly pine plantation established in 1987, sprayed in 1990, and first thinned in 2007. Stand 8 is an overstocked loblolly pine plantation established in 1991 and first thinned in 2004. Stand 12 is an overstocked loblolly pine plantation established in 1985, sprayed in 1988, and first thinned in 2007. Stand 13 is an overstocked loblolly pine plantation established and sprayed in 1987 and first thinned in 2007.

Habitats and Species of Management Concern: DFS Core and Stream Buffer
Water Resources: Manokin River watershed, Back Creek
Soil Resources: FgA, FhA, MdA, OKA, and QuA
Historic Conditions: No known historic features
Sivilcultural Prescription: Second thinning, retain significant hard mast species

[CF-24-S-05]

Proposal Name: S36 – Strickland – Stands 4, 6, 7, 17, 19, 29, and 82 Harvest Area: 342.7 acres

Forest Community Types and Development: Stand 4 is overstocked loblolly pine plantation established in 1999. Stand 6 is overstocked loblolly pine plantation established in 2000. Stand 7 is an overstocked loblolly pine plantation established in 2000 and sprayed in 2001. Stand 17 is overstocked loblolly pine naturally regenerated in 1991 and pre-commercially thinned in 2001. Stand 19 is an overstocked loblolly pine plantation established in 1999. Stand 29 is overstocked loblolly pine naturally regenerated in 2002. Stand 82 is an overstocked loblolly pine plantation established in 1983.

Habitats and Species of Management Concern: DFS Core and Stream Buffer

Water Resources: Pocomoke Sound and Lower Pocomoke River watersheds, Marumsco Creek, Rehobeth Branch Soil Resources: AoB, FgA, LO, MdA, OKA, and QuA

Historic Conditions: No known historic features

Sivilcultural Prescription: First thinning, retain significant hard mast species

[CF-24-S-06]

Proposal Name: S36 – Strickland – Stands 1, 2, 12, 21, 22 and 81

Harvest Area: 306.1 acres

Forest Community Types and Development: Stand 1 is an overstocked loblolly pine plantation established in 1991 and first thinned in 2006. Stand 2 is an overstocked loblolly pine plantation established in 1983, sprayed in 1999, fertilized in 2000, and first thinned in 2009. Stand 12 is an overstocked loblolly pine plantation established in 1989 and first thinned in 2006. Stand 21 is an overstocked loblolly pine plantation established in 1983 and first thinned in 2002. Stand 22 is an overstocked loblolly pine plantation established in 1983 and first thinned in 2002. Stand 22 is an overstocked loblolly pine plantation established in 1990 and first thinned in 2006. Stand 81 is an overstocked loblolly pine plantation established in 2002.

Habitats and Species of Management Concern: DFS Core and Stream Buffer

Water Resources: Pocomoke Sound and Lower Pocomoke River watersheds, Marumsco Creek, Rehobeth Branch Soil Resources: OKA and OtA

Historic Conditions: No known historic features

Sivilcultural Prescription: Second thinning, retain significant hard mast species

[CF-24-S-07]

Proposal Name: S55 – Marumsco – Stand 34 Harvest Area: 37.5 acres Forest Community Types and Development: Stand 34 is an overstocked loblolly pine naturally regenerated and sprayed in 2005, and pre-commercially thinned in 2011. Habitats and Species of Management Concern: General Management Water Resources: Pocomoke Sound watershed Soil Resources: OKA, OoA, and QuA Historic Conditions: No known historic features Sivilcultural Prescription: First thinning

WICOMICO COUNTY

[CF-24-S-08]

Proposal Name: W02 – Aughty Naughty – Stand 2 Harvest Area: 15.8 acres Forest Community Types and Development: Stand 2 is overstocked loblolly pine naturally regenerated in 2002. Habitats and Species of Management Concern: DFS Future Water Resources: Nanticoke River watershed Soil Resources: BhA, HvA, IeA, and MuA Historic Conditions: No known historic features Sivilcultural Prescription: First thinning, retain significant hard mast species

[CF-24-S-09]

Proposal Name: W02 – Aughty Naughty – Stand 32
Harvest Area: 15.2 acres
Forest Community Types and Development: Stand 32 is an overstocked loblolly pine plantation established in 1992.
Habitats and Species of Management Concern: DFS Future Core
Water Resources: Nanticoke River watershed
Soil Resources: AsA, BhA, MuA, and RwA
Historic Conditions: No known historic features
Sivilcultural Prescription: First thinning, retain significant hard mast species

[CF-24-S-10]

Proposal Name: W02 – Aughty Naughty – Stands 4, 6, 8, 9, 10, 18, 19, 22, 23, 38, 39, and 42

Harvest Area: 693.6 acres

Forest Community Types and Development: Stand 4 is an overstocked loblolly pine plantation established in 1986, sprayed in 1989, and first thinned in 2003. Stand 6 is an overstocked loblolly pine plantation established in 1970 and first thinned in 1997. Stand 8 is an overstocked loblolly pine plantation established in 1978 and first thinned in 2001. Stand 9 is an overstocked loblolly pine plantation established in 1987, sprayed in 1989, and first thinned in 2007. Stand 10 is an overstocked loblolly pine plantation established in 1985, sprayed in 1989, and first thinned in 2003/2007. Stand 18 is an overstocked loblolly pine plantation established in 1986 partially sprayed in 1988/1989, and first thinned in 2003/2007. Stand 18 is an overstocked loblolly pine plantation established in 1986 partially sprayed in 1988, sprayed in 1989 and 2000, and first thinned in 2003. Stand 22 is an overstocked loblolly pine plantation established in 1991 and first thinned in 2007/2008. Stand 23 is an overstocked loblolly pine plantation established in 1983 and first thinned in 2007/2008. Stand 38 is an overstocked loblolly pine plantation established in 1983 and first thinned in 2007/2008. Stand 39 is overstocked loblolly pine plantation established in 1983 and first thinned in 2001. Stand 39 is overstocked loblolly pine naturally regenerated in 1978 and first thinned in 2001. Stand 42 is an overstocked loblolly pine plantation established in 1978 and first thinned in 2007.

Habitats and Species of Management Concern: ESA Zone 1, ESA Zone 3 Pulpwood, Stream Buffer, and General Management

Water Resources: Pusey Branch, Dividing Creek watershed Soil Resources: AsA, EkA, FaA, HuA, KeA, KsA, KsB, MuA, and OtA Historic Conditions: No known historic features Sivilcultural Prescription: Second thinning, retain significant hard mast species

[CF-24-S-11]

Proposal Name: W06 – Lathrop – Stand 10

Harvest Area: 54.0 acres

Forest Community Types and Development: Stand 10 is a mature loblolly pine plantation established in 1969, first thinned in 1993, and second thinned in 2002.

Habitats and Species of Management Concern: ESA Zone 1, ESA Zone 1 Sand Ridge, ESA Zone 3 Sawtimber, and Stream Buffer

Water Resources: Nanticoke River watershed

Soil Resources: AsA, BhA, HvA, KgB, MuA, Pk, and RsB

Historic Conditions: Homesite as indicated on map

Sivilcultural Prescription: Regeneration harvest using the inland sand dune habitat prescription, retain significant hard mast species and pitch, shortleaf, and pond pines. Atlantic white cedars should be retained if found, and the site should be evaluated for Atlantic white cedar restoration following the harvest.

[CF-24-S-12]

Proposal Name: W53 – Twigg-Fooks – Stand 21 Harvest Area: 12.6 acres Forest Community Types and Development: Stand 21 is a mature loblolly pine naturally regenerated in 1951. Habitats and Species of Management Concern: DFS Future Water Resources: Nassawango Creek watershed Soil Resources: AsA, BhA, KsB, and RuB Historic Conditions: No known historic features Sivilcultural Prescription: Regeneration harvest using the inland sand dune habitat prescription, retain

significant hard mast species and pitch, shortleaf, and pond pines.

WORCESTER COUNTY

[CF-24-S-13]

Proposal Name: WR11 – Shockley – Stand 3

Harvest Area: 20.5 acres Forest Community Types and Development: Stand 3 is an overstocked loblolly pine plantation established in 1990. Habitats and Species of Management Concern: Stream Buffer and General Management Water Resources: Upper Pocomoke River watershed, Whiton Ditch Soil Resources: FaA, MuA, and WdA Historic Conditions: MHT Grid C511_R231 Sivilcultural Prescription: First thinning

[CF-24-S-14]

Proposal Name: WR40 – Dunn Swamp – Stand 32 Harvest Area: 40 acres Forest Community Types and Development: Stand 32 is an overstocked loblolly pine plantation established in 2015. Habitats and Species of Management Concern: General Management Water Resources: Lower Pocomoke River watershed Soil Resources: FaA, HmB, OtA, and WdA Historic Conditions: No known historic features Sivilcultural Prescription: Pre-commercial thinning

[CF-24-S-15]

Proposal Name: WR40 – Dunn Swamp – Stand 10 Harvest Area: 72.3 acres Forest Community Types and Development: Stand 10 is an overstocked loblolly pine plantation established in 2000 and sprayed in 2001. Habitats and Species of Management Concern: General Management Water Resources: Lower Pocomoke River watershed Soil Resources: FaA and OtA Historic Conditions: No known historic features Sivilcultural Prescription: First thinning

POCOMOKE STATE FOREST

Proposal Name: P01 – Old Furnace I – Tract 1, Stand 2
Harvest Area: 57.6 acres
Forest Community Types and Development: Stand 2 is mature pine/hardwood naturally regenerated in 1922.
Habitats and Species of Management Concern: DFS Future Core
Water Resources: Nassawango Creek watershed
Soil Resources: AsA, BhA, HuA, KsA, MuA, and RuB
Historic Conditions: No known historic features
Sivilcultural Prescription: Selection harvest, retain 1-2 shortleaf pines per dune, if possibly, to create a more open, savannah-woodland habitat; retain significant hard mast species and native pines such as pitch, shortleaf, and pond pine in other areas of the harvest. A prescribed burn should be planned for this site.

[P-24-S-02]

Proposal Name: P01 – Sturges Creek – Tract 26 – Stands 2, 3, and 5 Harvest Area: 193.2 acres **Forest Community Types and Development**: Stand 2 is an overstocked loblolly pine plantation established in 1989. Stand 3 is an overstocked loblolly pine plantation established in 2000. Stand 5 is an overstocked loblolly pine plantation established in 1985.

Habitats and Species of Management Concern: ESA Zone 3 Sawtimber, Stream Buffer, and DFS Future Core Water Resources: Nassawango Creek watershed, Sturges Creek

Soil Resources: AsA, BhA, EvB, EvD, HuA, KsA, KsB, LO, Ma, MuA, RuA, and RuB

Historic Conditions: No known historic features

Sivilcultural Prescription: First thinning, retain significant hard mast species and pitch, shortleaf, and pond pines in the sand dune area.

[P-24-S-03]

Proposal Name: P02 – Nazareth Church – Tract 9 – Stands 1, 2, 3, 4, and 6; Tract 10 – Stand 8 Harvest Area: 113.9 acres

Forest Community Types and Development: Tract 9: Stand 1 is an overstocked loblolly pine plantation established in 1998. Stand 2 is overstocked pine-hardwood naturally regenerated in 2002. Stand 3 is an overstocked loblolly pine plantation established in 1995. Stand 4 is overstocked loblolly pine naturally regenerated in 2002. Stand 6 is overstocked pine-hardwood naturally regenerated in 2004. Tract 10: Stand 8 is overstocked pine-hardwood naturally regenerated in 2000 and sprayed in 2005. Habitats and Species of Management Concern: ESA Zone 1 and DFS Future Core Water Resources: Dividing Creek and Nassawango Creek watersheds Soil Resources: AsA, BhA, CeA, EvA, EvD, GaB, GaC, KsA, KsB, MuA, RoA, RoB, RuA, and RuB Historic Conditions: No known historic features Sivilcultural Prescription: First thinning, retain significant hard mast species.

[P-24-S-04]

Proposal Name: P02 – Nazareth Church – Tract 9 – Stand 5
Harvest Area: 23.3 acres
Forest Community Types and Development: Overstocked loblolly pine naturally regenerated in 1997.
Habitats and Species of Management Concern: ESA Zone 1 and DFS Future Core
Water Resources: Dividing Creek and Nassawango Creek watersheds
Soil Resources: EvA, EvD, GaB, KsB, and Rob
Historic Conditions: No known historic features
Sivilcultural Prescription: Regeneration harvest, retain significant hard mast species and native pines such as pitch, shortleaf, and pond pine in the sand dune area.

[P-24-S-05]

Proposal Name: P02 – Nazareth Church – Tract 9 – Stand 15

Harvest Area: 16.1 acres

Forest Community Types and Development: Stand 15 is mature shortleaf pine naturally regenerated in 1944 and burned in 2022.

Habitats and Species of Management Concern: ESA Zone 1

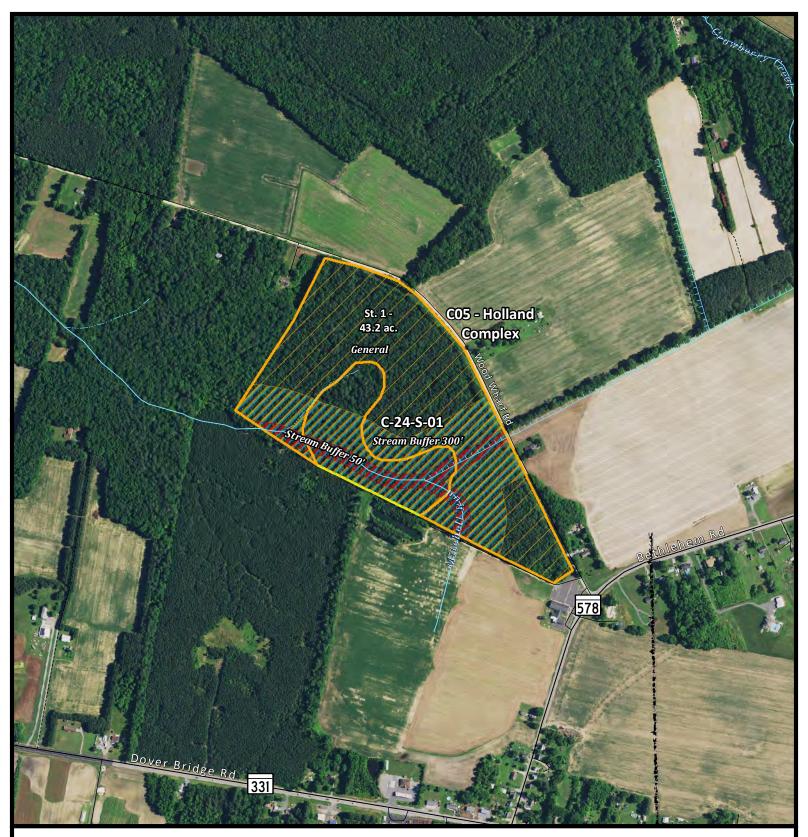
Water Resources: Dividing Creek and Nassawango Creek watersheds

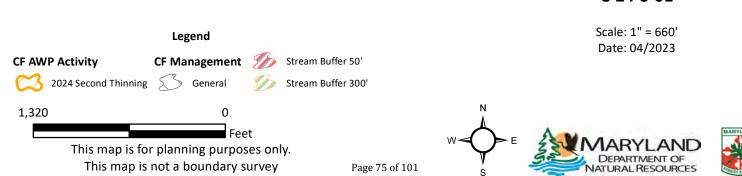
Soil Resources: EvA, EvB, EvD, and GaB

Historic Conditions: No known historic features

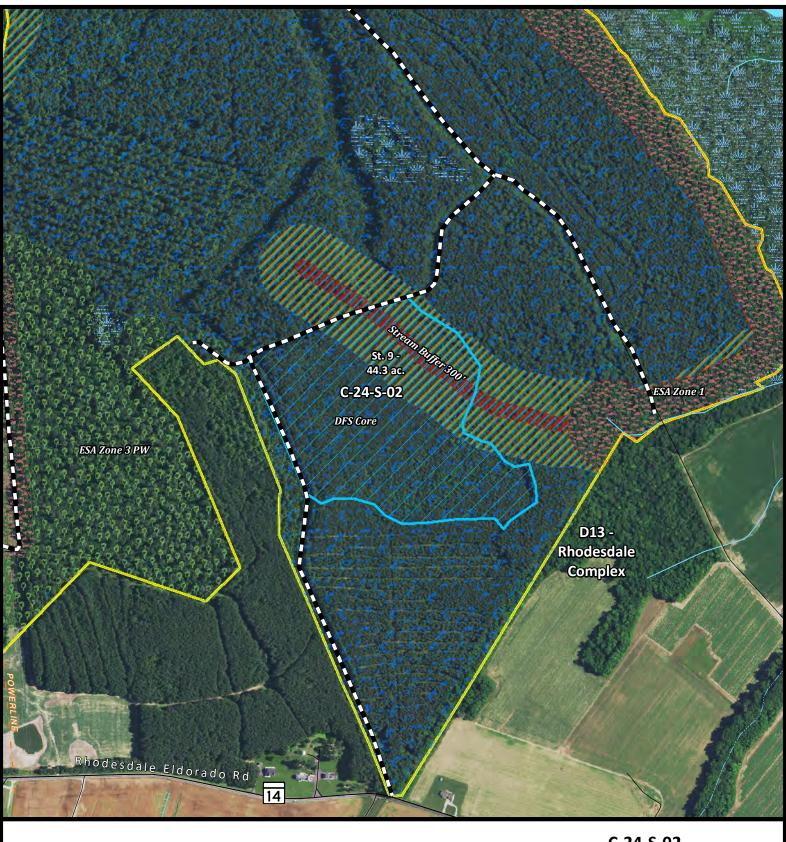
Sivilcultural Prescription: Seed tree harvest – seed trees should be shortleaf, pond, or pitch pine; retain significant hard mast species, especially in the sand dune area.

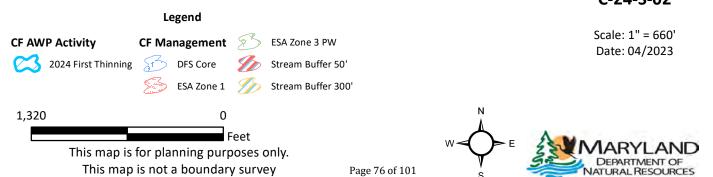
SILVICULTURAL SITE MAPS





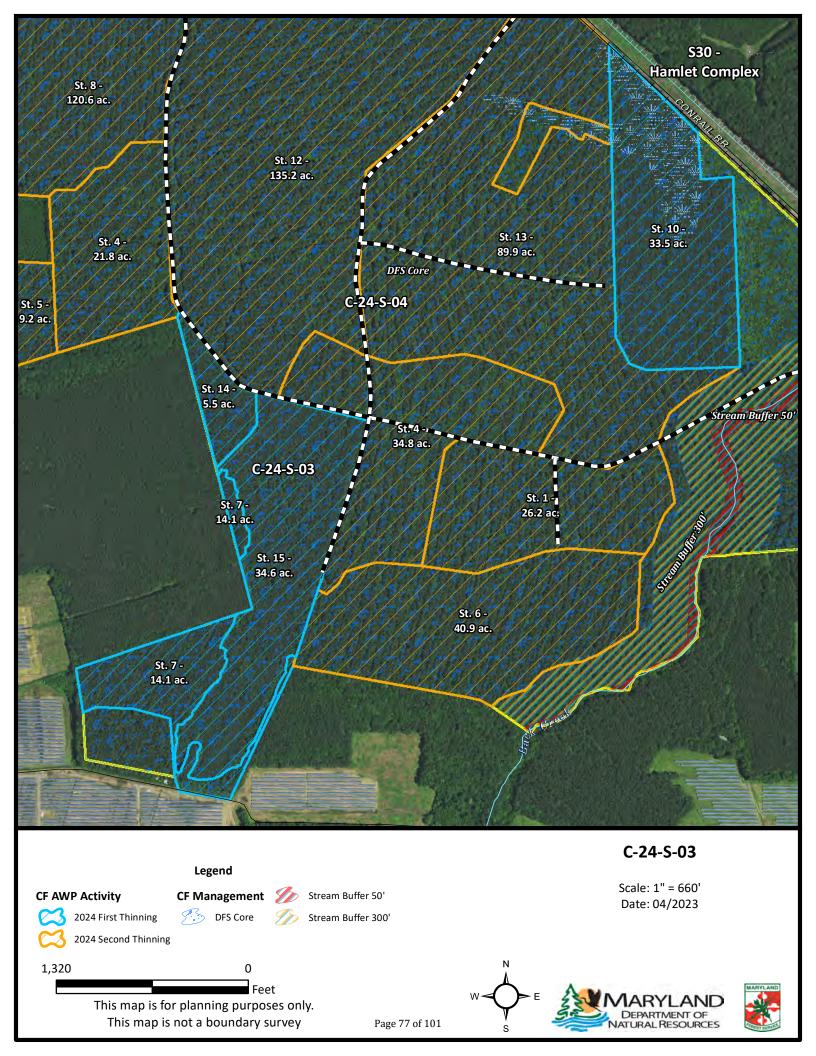
C-24-S-01

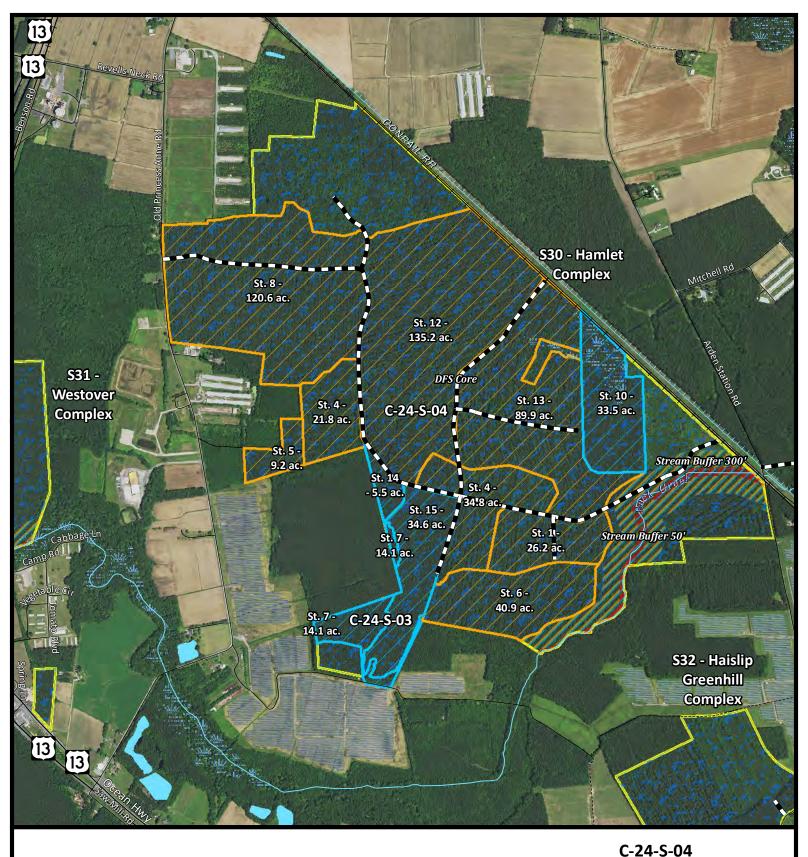


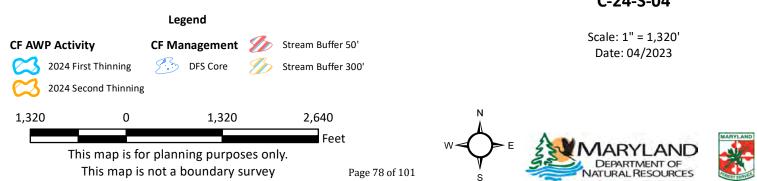


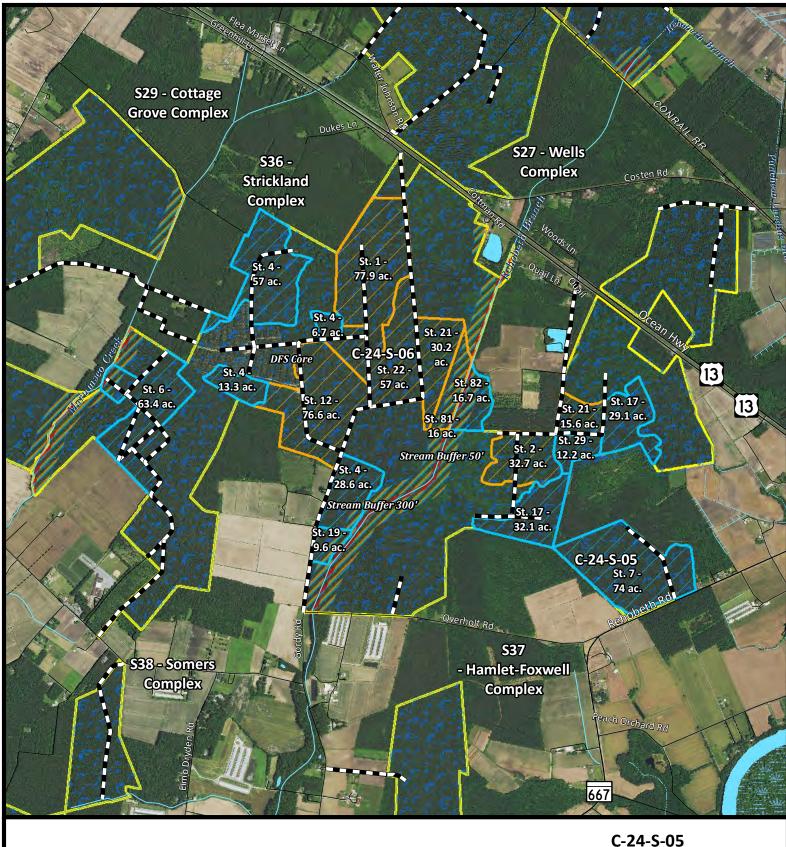


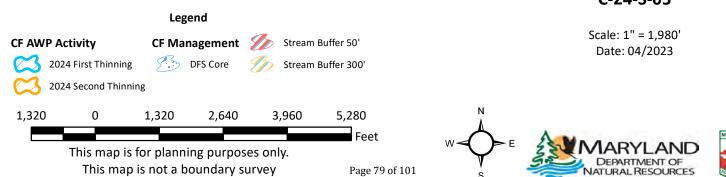




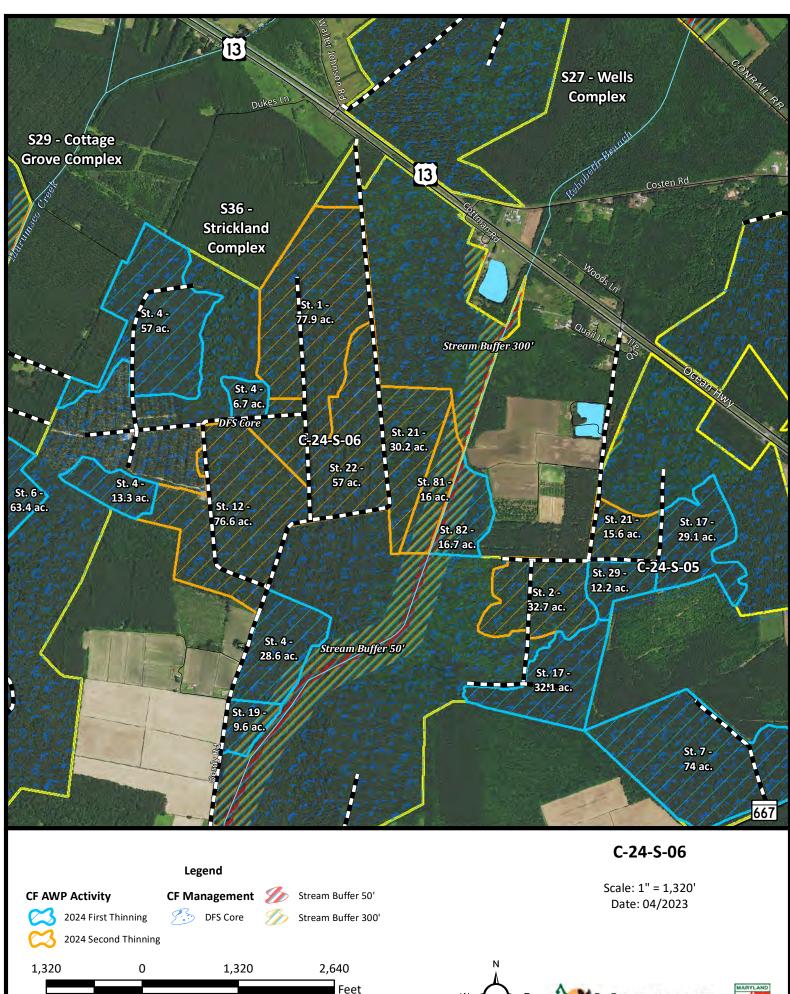












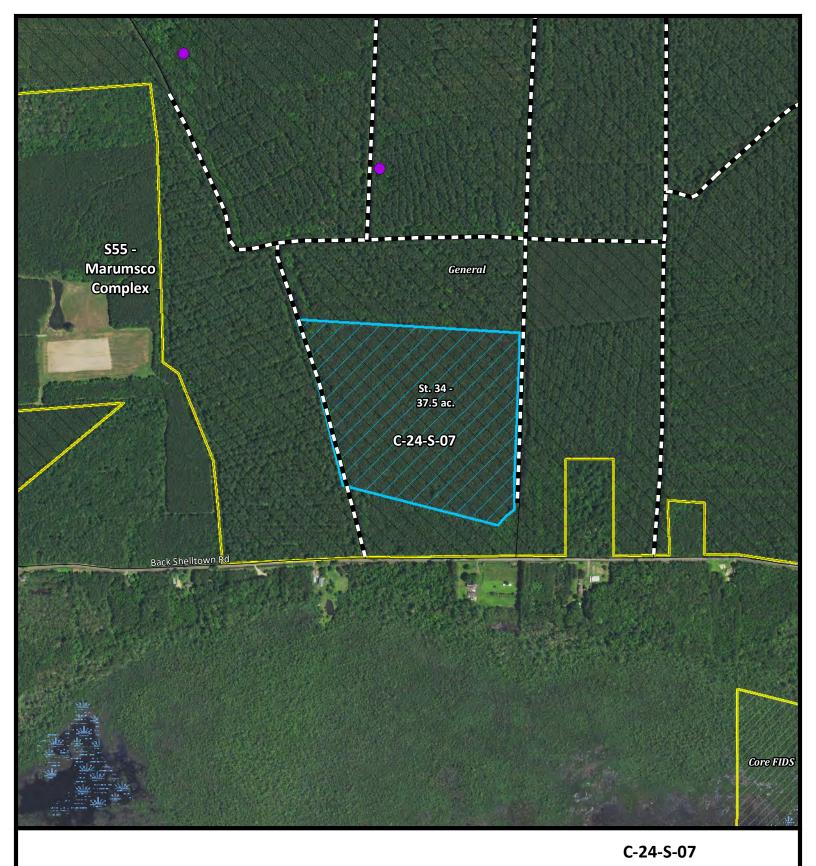
Page 80 of 101

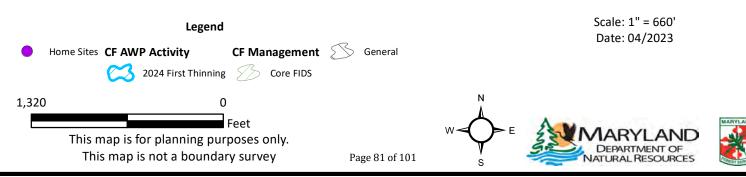
This map is for planning purposes only. This map is not a boundary survey

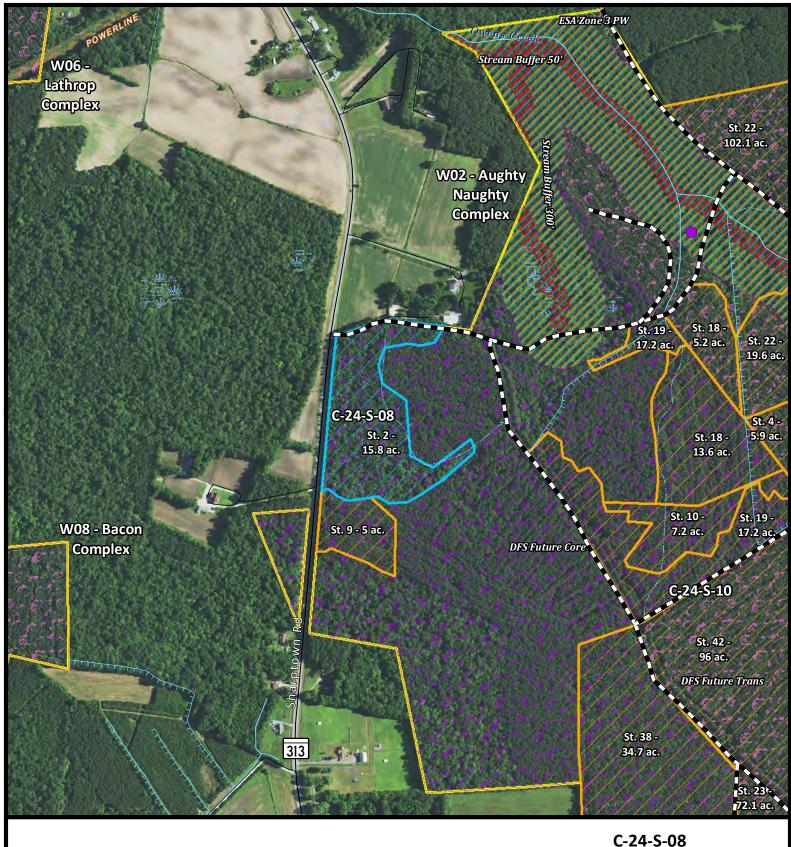




AND

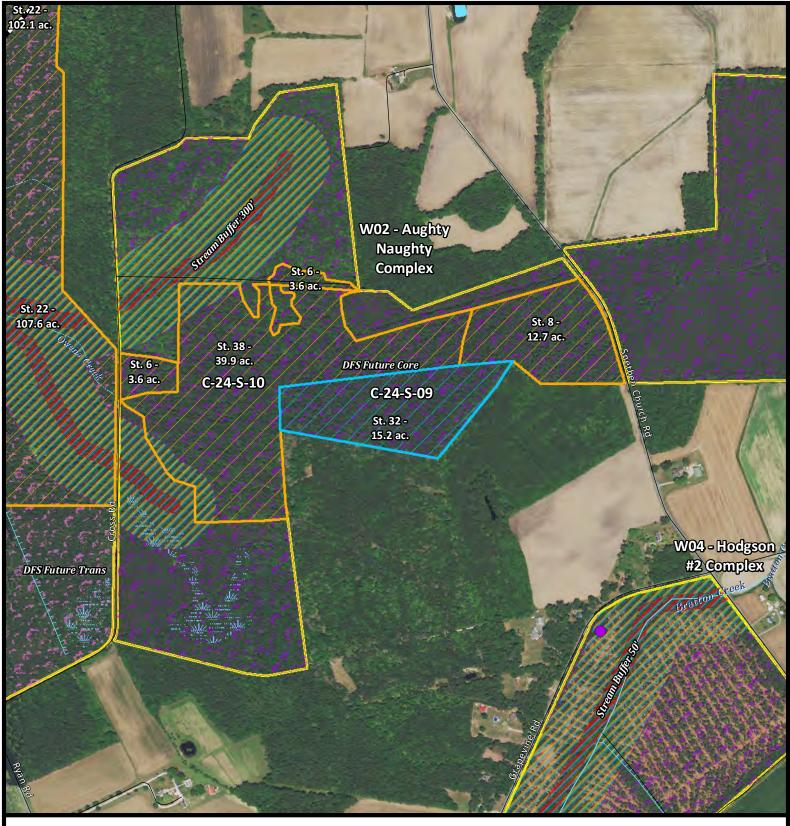


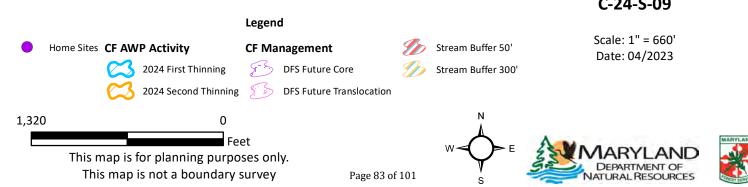




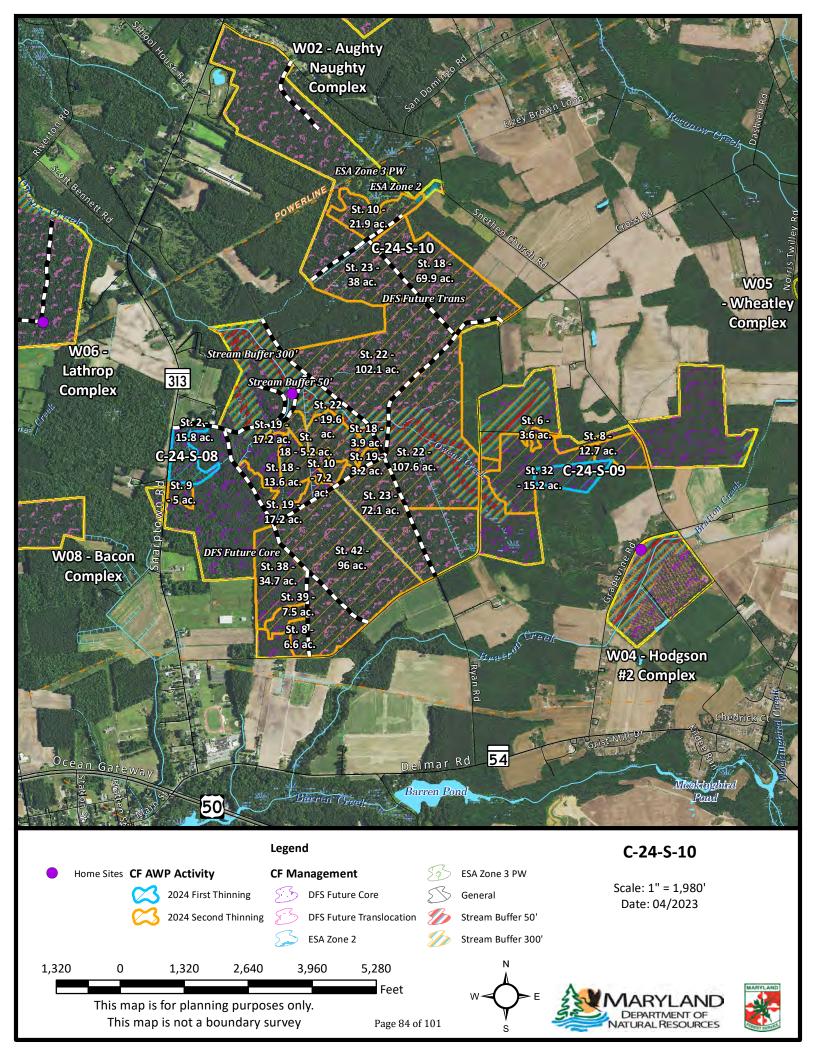


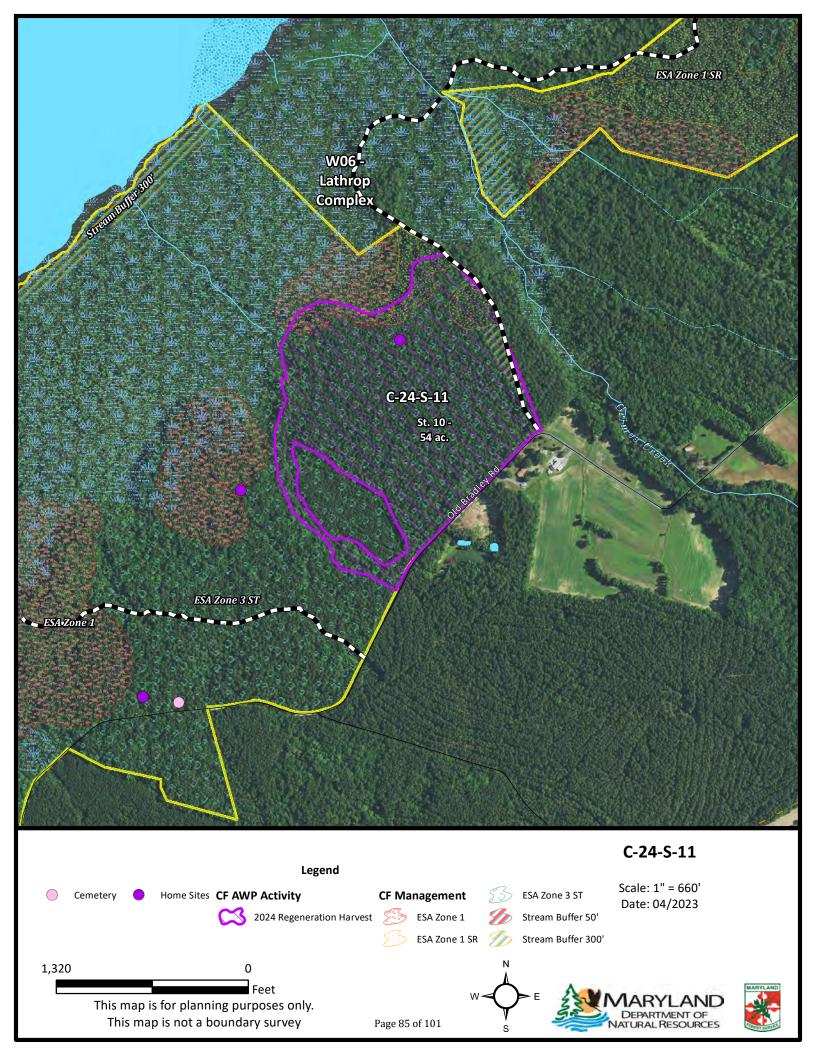


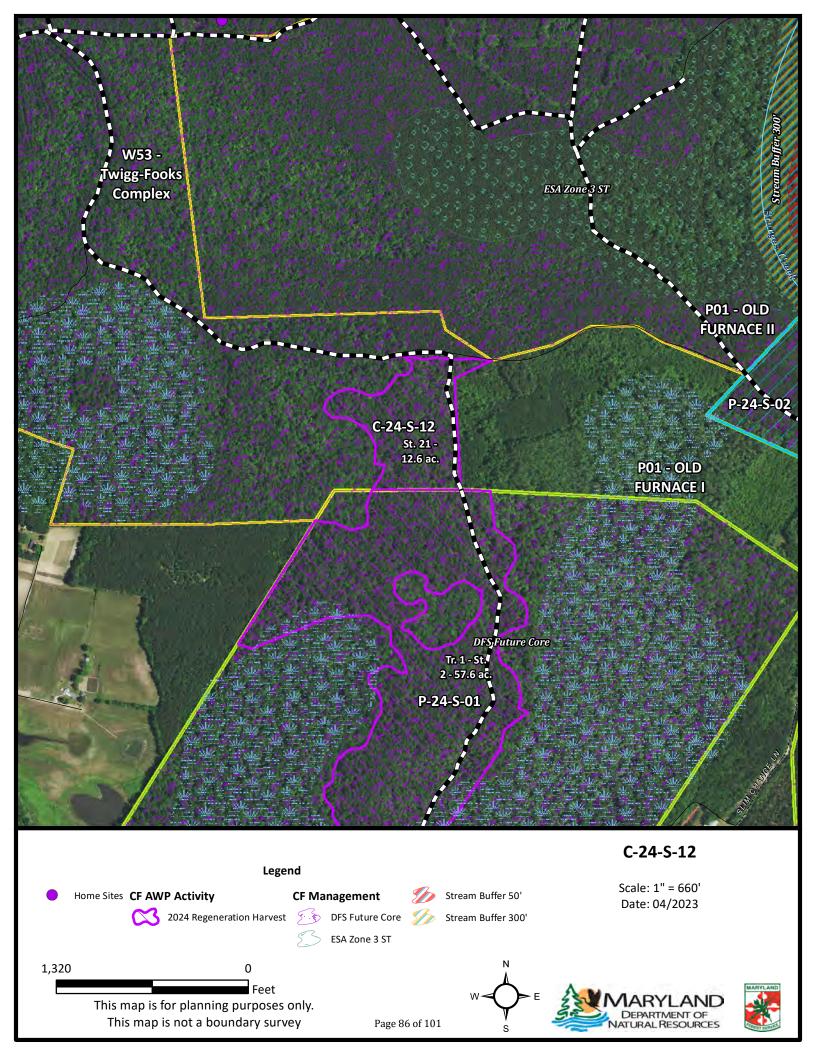


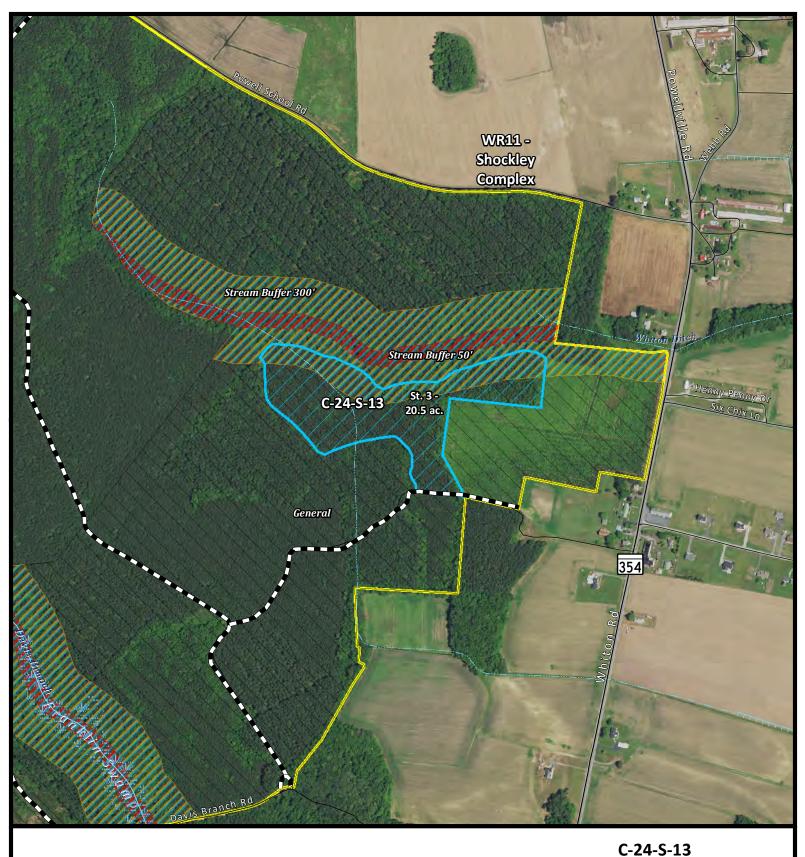


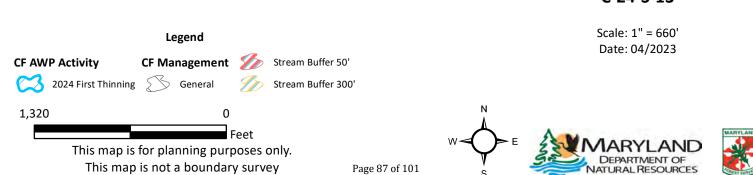
C-24-S-09



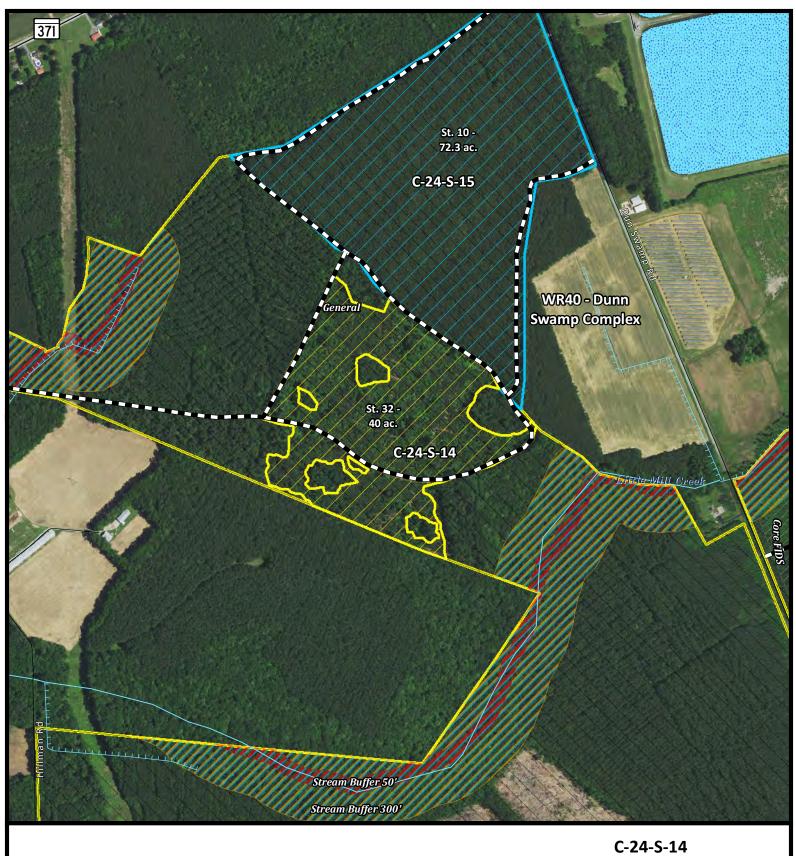




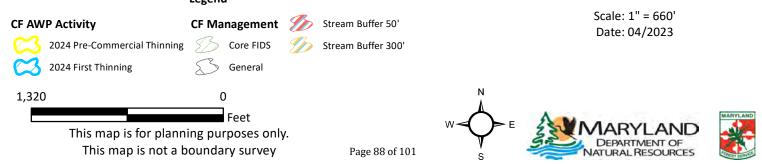


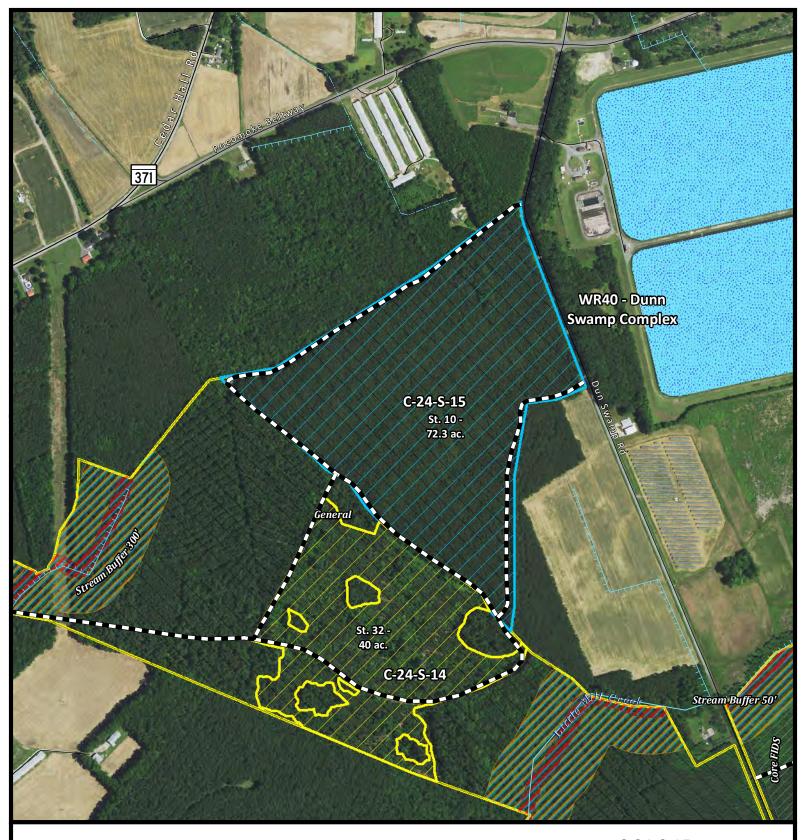


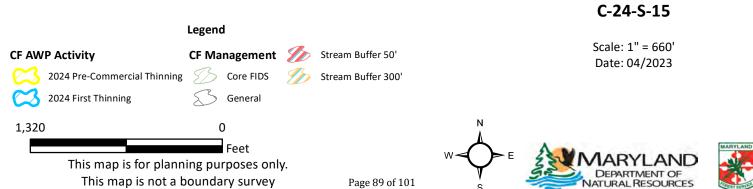


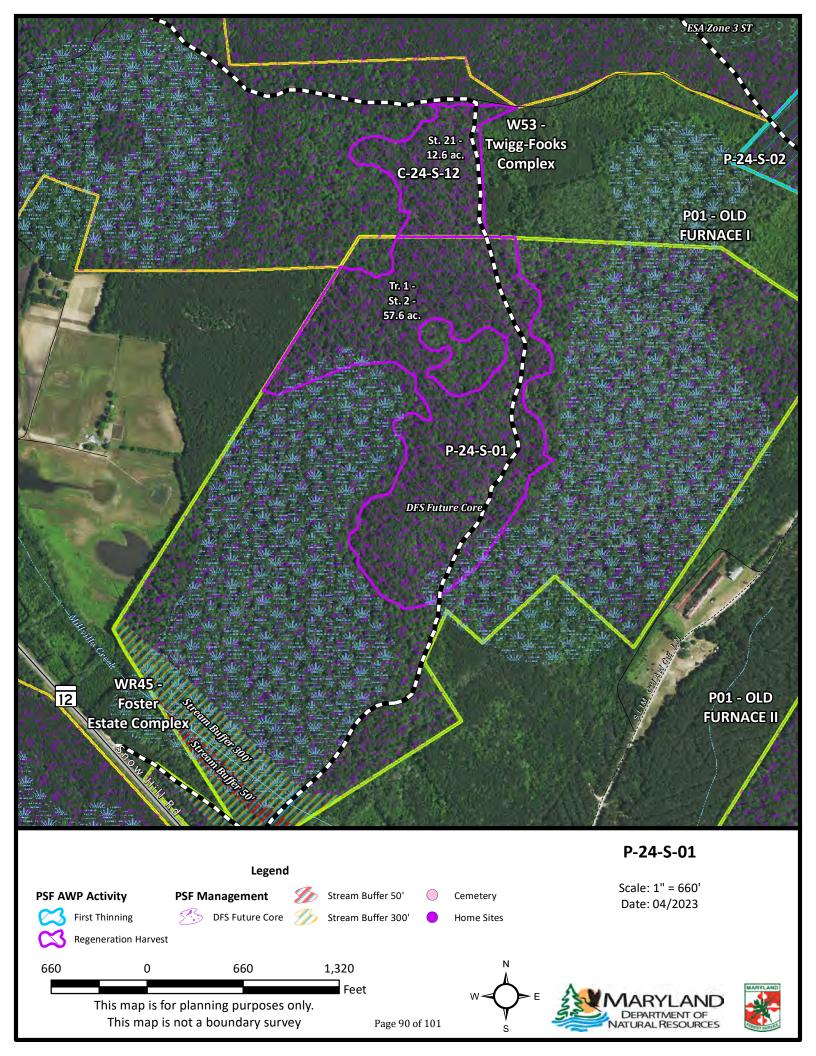


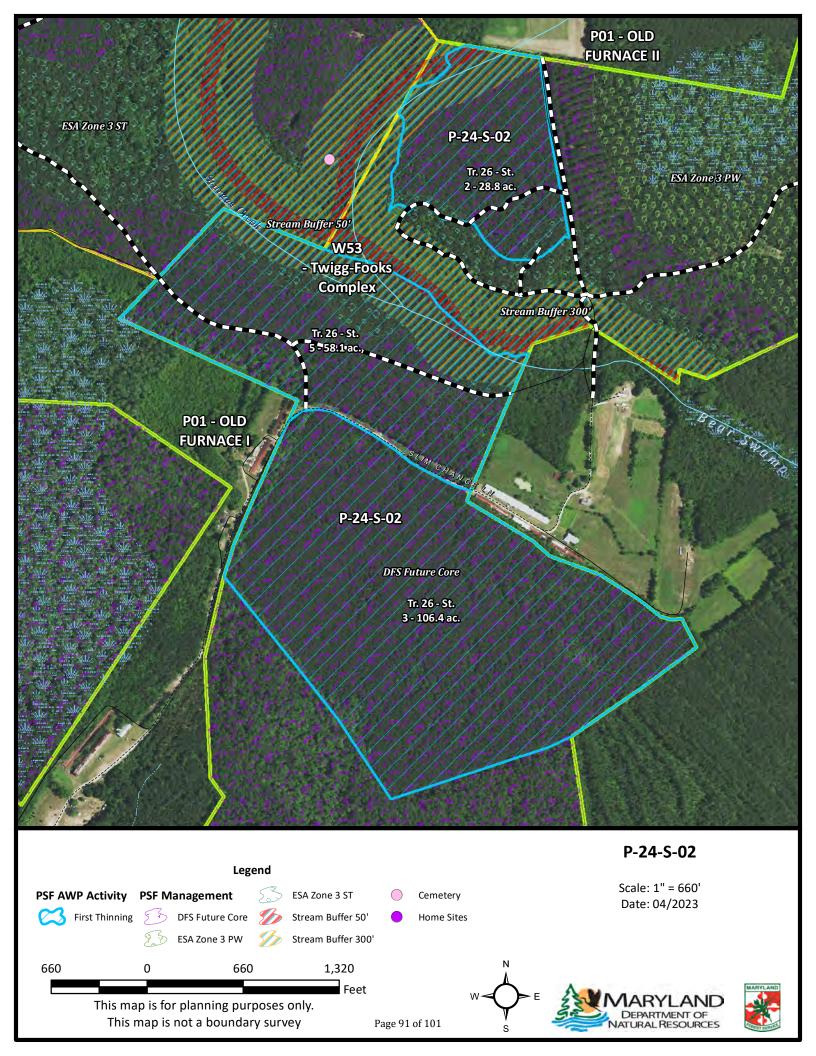














This map is for planning purposes only. This map is not a boundary survey

0

660

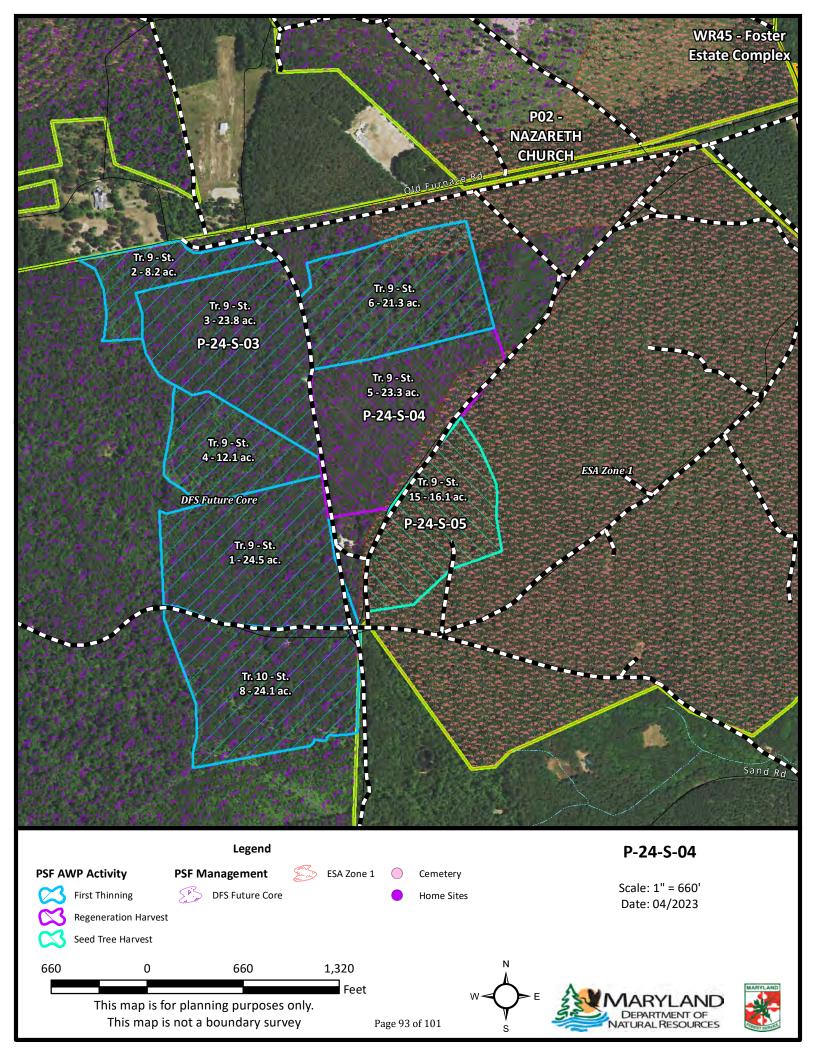
1,320

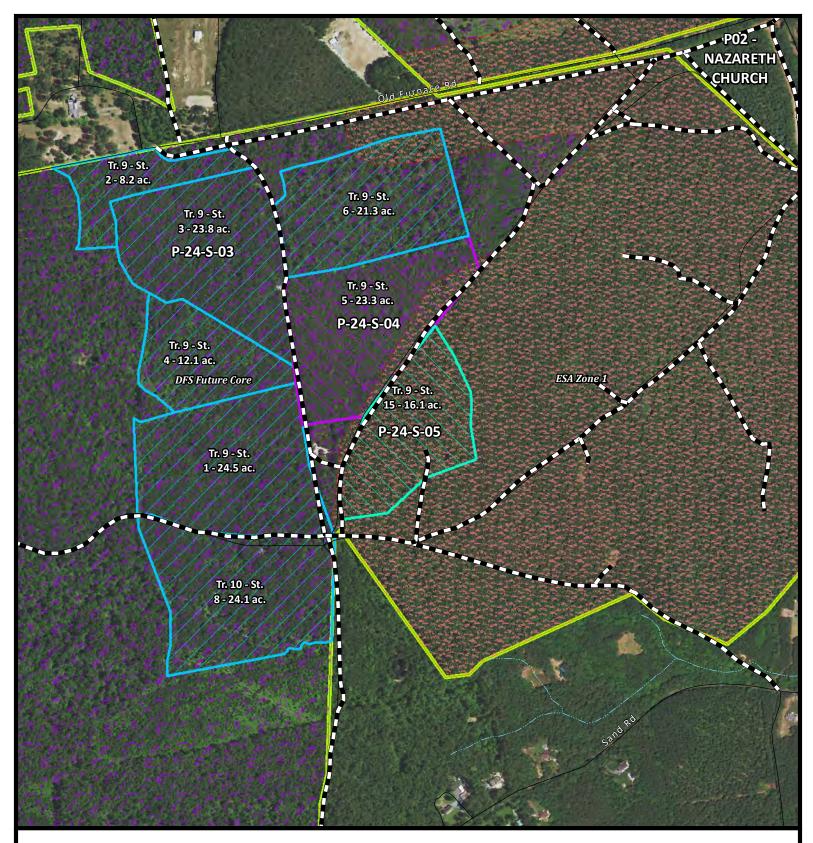
Page 92 of 101

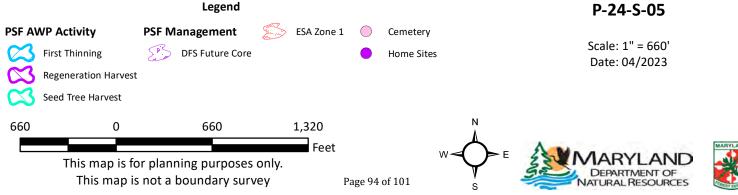
660











L. BUDGET

Introduction

This section of the plan is designed to cover the annual funding sources and costs associated with the operational management of the Chesapeake Forest and the Pocomoke State Forest (CF/PSF).

The numbers expressed in this section are approximates typically found from one year to the next. Variations do occur based on management prescriptions, economic conditions, weather, certification audit year, and public use of the forest.

Funding Sources

- 1. General Fund Monies generated from Maryland State taxes. These funds are appropriated by the General Assembly through the annual state budgeting process.
- 2. Timber Revenue Monies generated from the sale of forest products such as sawtimber, poles, pilings and pulpwood.
- 3. Hunting Leases Monies generated by the Chesapeake Forest Hunting Lease Program.
- 4. Agricultural Leases Monies generated from leasing agricultural fields on the forest to local farmers.
- 5. Grants Monies generated from outside agencies/groups through a competitive grant request process.

Operational Costs

- 1. State Employee Salaries There are four classified (full time) state employees assigned to the CF/PSF: Forest Manager, GIS Forester, Forest Technician, and an Administrative Assistant.
- 2. Contractual Employee Salaries There are typically four contractual employees working 10 to 12 months per year on the forest.
- 3. Land Management This includes the cost of contract management services and payments to loggers for harvesting and delivering forest products to processing mills.
- 4. Land Operations This includes costs for road maintenance, non-commercial harvesting, tree planting, herbicide application, monitoring, equipment purchase & maintenance, etc.
- 5. County Payments All counties except for Worcester are paid at a rate of 15% of the total revenue in lieu of property taxes. In Worcester County, 25% of the revenue generated off the forest is paid to the county since the total acreage of Park and Forestry properties exceeds 10% of the total County land base.
- 6. Public Drainage Association (PDA) Fees This is a fee collected for large public drainage ditches that are present on the forest. Monies are used by the PDA to maintain the ditches.
- Forest Certification Monies used to maintain state forest lands certification through annual third party audits. Every fifth year is a full recertification audit, which costs \$40,000. Subsequent surveillance audits cost \$20,000.

Funding Sources	
1. General	\$ 439,956
2. Timber Revenue	\$ 1,100,000
3. Hunting Leases & Camping Permits	\$ 586,946
4. Agricultural Leases	\$ 33,202
5. Recreation Trail Grant(s)	\$ 24,000
Total	\$ 2,184,104
Operational Costs	
1. State Employee Salaries	\$ 285,049
2. Contractual Employee Salaries	\$ 83,062
3. Land Management	\$ 981,034
4. Land Operations	\$ 438,242
5. County Payments	\$ 171,770
6. Public Drainage Association Fees	\$ 9,647
7. Forest Certification	\$ 19,605
Total	\$ 1,988,409
Net Revenue	\$ 195,695

Chesapeake Forest/Pocomoke State Forest Budget

Soil Series	SMG	Caroline	Dorchester	Somerset	Wicomico	Worcester
Acquango sand	4					AcB, AcC
Annemessex-Manokin complex	1			AoA, AoB		- ,
Askecksy loamy sand	1	AsA			AsA	As
Askecksy-Urban land complex	1				AtA	
Beaches	-		Be	Be	Be	Be
Berryland mucky loamy sand	2				BhA	BhA
Bestpitch and Transquaking	5		BT			
Boxiron and Broadkill soils	1			BX		BX
Broadkill mucky silt loam	1					Br
Brockatonorton sand	3					BkA, BkB
Cedartown loamy sand	4	CdA, CdB			CdA	
Cedartown-Rosedale complex	4					CeA, CeB
Chicone mucky silt loam	5		Ch			Ch
Corsica and Fallsington soils	2			CRA		
Corsica mucky loam	1	СоА		Giui	СоА	
Corsica mucky loam, Carolina Bay	1	CrA			0011	
Downer loamy sand	3	GIII	DnC			
Downer sandy loam	3		DoA, DoB	DoA, DoB		
Elkton loam	1		EkA	DUA, DUD		
Elkton mucky silt loam	1		EcA			
Elkton sandy loam	1		EUA			EkA
Elkton silt loam		EmA	EmA	Em A		
	1 5	EmA	EmA	EmA	EOD	EmA
Endoaquepts and Sulfaquepts	-			EQB	EQB	E.A.E.D.E.C
Evesboro loamy sand	4					EvA, EvB, EvC
Evesboro sand	4	EwA, EwB	EwC, EwE	E D	EwA, EwB, EwC	
Evesboro-Galestown complex	4			EzB		
Fallsington loam	2	FgA		FgA	FgA	
Fallsington sandy loam	2	FaA	FaA	FaA	FaA	FaA
Fallsinston-Glassboro complex	2			FhA		
Fort Mott loamy sand	3		FmA, FmB		FmA, FmB	FmA, FmB
Fort Mott, Evesboro, and Downer soils	3		FNE			
Fort Mott-Urban land complex	3				FuA, FuB	
Galestown loamy sand	4	GaA, GaB	GaA, GaB	GaB	GaA, GaB	GaA, GaB, GaC
Galestown and Rosedale soils	4	GAE				
Glassboro loam	2			GlA		
Hambrook loam	3	HcA	НсА, НсВ	HcA		
Hambrook sandy loam	3	HbA, HbB, HbC		HbB	HbA, HbB	HbA, HbB
Hambrook-Sassafras complex	3					
Hammonton loamy sand	3			HmA		HmA, HmB
Hammonton sandy loam	3	HnA	HnA	HnA	HnA	
Hammonton-Fallsington-Corsica complex	2	HoB				
Hammonton-Glassboro complex	3			HgB		
Honga peat	5		Но	Но	Но	
Hurlock loamy sand	2			HuA		HuA
Hurlock sandy loam	2	HvA	HvA	HvA	HvA	
Ingleside loamy sand	3	IeA, IeB, IeC			IeA, IeB	
Ingleside sandy loam	3	IgA, IgB, IgC	IgA, IgB	IgA, IgB		
Ingleside-Runclint complex	3			IkC		
Kentuck silt loam	5			-		KeA
Keyport fine sandy loam	3				KfA, KfB	
Keyport silt loam	3		КрА	КрА		
Klej loamy sand	2		p.r	p.i		KsA, KsB
Klej-Galloway complex	2	KgB	KgB	KgB	KgB	1.511, 1.5D
Lenni loam	2	LgA	КgD	KgD	LgA	
Lenni sandy loam	2	LgA			LgA	
Longmarsh and Indiantown soils	5	LIIA		LO	LIA	LO
	5				-	
Manahawkin muck		Ма		Ma Mda MdP	Ма	Ма
Manokin silt loam	3			MdA. MdB		

APPENDIX A – SOIL SERIES MANAGEMENT GROUPS, ABBREVIATIONS, AND SYMBOLS

Soil Series	SMG	Caroline	Dorchester	Somerset	Wicomico	Worcester
Matapeake silt loam	3					MkA, MkB
Mattapex fine sandy loam	3		МрА		MpA	МрА, МрВ
Mattapex silt loam	3	MtA, MtB	MtA, MtB		MtA, MtB	MtA, MtB
Miscellaneous water	-	M-W		M-W	M-W	
Mullica-Berryland complex	2			MuA	MuA	MuA
Nanticoke and Mannigton soils	5	NM	NM	NM	NM	NM
Nassawango fine sandy loam	3				NnA, NnB	NnA, NnB
Nassawango silt loam	3	NsA, NsB	NsA, NsB		NsA, NsB	NsA, NsB
Othello and Kentuck soils	1		OkA	ОКА	OKA	- / -
Othello silt loam	1		OtA	OtA	OtA	OtA
Othello silt loam, loamy substratum	1			OoA		
Othello-Fallsington complex	2			OvA		
Pepperbox-Rockawalkin complex	3				PrA, PrB	
Pone mucky loam	2		PmA		,	
Pone mucky sandy loam	2		PnA			
Puckum mucky peat	5	Pk	Pk	Pk	Pk	Pk
Purnell peat	5					Pu
Queponco loam	3			ObB		
Queponco silt loam	3			QeA, QeB		
Quindocqua silt loam	1			QuA		
Rockawalkin loamy sand	3	RkA		Quii	RkA, RkB	
Rockawalkin-Urban land complex	3	Hur			RnA, RnB	
Rosedale loamy sand	4	RoA, RoB			RoA	RoA, RoB
Runclint loamy sand	4	KON, KOD			RuA, RuB	RuA, RuB
Runclint sand	4		RsA, RsB	RsB	RsA, RsB	RuA, Rub
Runclint-Cedartown complex	4		131,135	RwB, RwC	RwA, RwB	
Runclint-Evesboro complex	4			RxB	KWA, KWD	
Runclint-Urban land complex	4			ICAD	RzA, RzB	
Sassafras loam	3		SnA		112/1, 112/2	
Sassafras sandy loam	3	SaA, SaB	511/1			SaA, SaB, SaC
Sunken mucky silt loam	5	5011, 5015	SuA	SuA	SuA	SuA
Tangier mucky peat	5		SuA	Та	Jun	SuA
Transquaking and Mispillion soils	5	TP		TP	TP	TP
Udorthents	4	UbB, UfF, UoB	UzB	UbB, UfB, UfF, UgB, UoB, UwB	UbB, UfB, UoB	UzB
Unicorn-Sassafras complex	3			082,002,0112		
Urban Land	-	Up			Up	UpB
Urban Land-Acquango complex	-	- op			op	UcB
Urban Land-Askecksy complex	-					UmA
Urban Land-Brockatonorton complex						UnA
Urban Land-Evesboro complex	-				UrB	0101
Urban Land-Fort Mott complex	-				UsB	
Urban Land-Rockawalkin complex	-				UtB	
Urban Land-Runcline complex	-				UuB	
Urban Land-Udorthents complex	-				UwB	UwB
Water	-	W	W	W	W	W
Woodstown loam	3	WoA, WoB	WoA	WoA	vv	٧V
Woodstown loan	3	WdA, WdB WdA, WdB	WdA, WdB	WdA, WdB	WdA	WdA, WdB
Woodstown Sandy Joann	3	wun, wub	wun, wub		vv uA	wun, wub
Zekiah sandy loam	5	Za	Za	WpA		Za
		61	64	1		64

CHESAPEAKE FOREST/POCOMOKE STATE FOREST: SOIL MANAGEMENT GROUPS

This is a forest management grouping designed specifically for the Chesapeake Forest and Pocomoke State Forest Sustainable Forest Management Plans, based on the soil series descriptions contained in the six county surveys.

Management Group 1 – Poorly and very poorly drained medium textured soils with heavy subsoils.

Soils: Annemessex-Manokin complex Askecksy loamy sand Corsica mucky loam Corsica mucky loam, Carolina Bay Crosiadore silt loam Elkton loam Elkton mucky silt loam Elkton sandy loam Elkton silt loam Othello and Kentuck soils Othello silt loam Othello silt loam, loamy substratum Quindocqua silt loam

Description: These are poor and very poorly drained, medium textured soils that have a fine-textured subsoil. They are generally found in broad upland flats, depressions, and swales. Slopes are 0 to 2%. Ponding may occur after heavy rains, and high water table may limit access from December through May. These soils may have seasonal limitations for wetness, but the firm subsoils may allow mechanical operations, particularly with low-impact equipment, that allows them to be managed with intensive forestry methods.

Management Group 2 – Poorly and very poorly drained loam and sandy loam soils with sandy and medium textured subsoils.

Soils:Berryland mucky loamy sandKlej-Galloway complexCorsica and Fallsington soilsKlej-Hammonton complexFallsington loam and sandy loamLenni loam and sandy loamFallsington-Glassboro complexMullica-Berryland complexGlassboro loamOthello-Fallsington complexHurlock loamy sand and sandy loamPone mucky loam and mucky sandy loamKlej loamy sandKlej complex

Description: Medium and sandy-textured, poorly and very poorly drained soils on upland flats. Small areas in depressions will pond in very wet periods. Many of these soils lack firm subsoils, and when saturated may be very subject to soil rutting by equipment. This leads to shorter-season access, which may limit their use. With appropriate seasonal scheduling, these soils are suited for intensive forest management.

Management Group 3 – Well drained and moderately well drained sandy and loamy soils that formed in sandy materials and have sandy loam to silty or sandy clay subsoils.

- Soils: Downer loamy sand and sandy loam Fort Mott loamy sand Hambrook loam and sandy loam Hambrook-Sassafras complex Hammonton loamy sand and sandy loam Hammonton-Glassboro complex Ingleside loamy sand and sandy loam Ingleside-Runclint complex Keyport fine sandy loam and silt loam Manokin silt loam
- Matapeake fine sandy loam and silt loam Mattapex fine sandy loam and silt loam Nassawango fine sandy loam and silt loam Pepperbox-Rockawalkin complex Queponco loam and silt loam Rockawalkin loamy sand Sassafras sandy loam Woodstown sandy loam Woodstown-Glassboro complex

Description: Well drained soils that are generally better-suited to pine than to hardwoods. These may occur on slopes of 0 to 10 percent. On the steeper slopes erosion potential needs to be addressed. Rutting and soil damage by machine operations

are minor problems and most sites will have good access and operability most of the year. These are the best suited soils for intensive forest management.

Management Group 4 – Deep, sandy soils that are well to excessively well drained.

Soils:	Cedartown loamy sand	Rosedale loamy sand
	Evesboro loamy sand and sand	Runclint loamy sand and sand
	Evesboro-Galestown complex	Runclint-Cedartown complex
	Galestown loamy sand	Runclint-Evesboro complex
	Galestown and Rosedale soils	Udorthents

Description: These sandy soils have few operating limitations due to soil wetness, and can provide sites for mechanical activities during wet seasons. Productivity is low, and some sites may be occupied by Virginia or shortleaf pine. Some may occur in a landscape pattern of sand ridges interspersed with low wet soils or Delmarva Bays, and provide an important habitat type, particularly for herpivores and invertebrates. Some may have slopes of up to 10-15%, which may limit management. Udorthents are soils that have been mechanically altered and may occur mainly as borrow pits, landfills, or other re-worked areas. Intensive forest management is probably limited on many of these soils.

Management Group 5 – Low-elevation, poorly and very poorly drained soils that formed in organic materials. They may lie in flood plains, freshwater wetlands, or areas that can be affected by tidal flooding.

Soils:	Chicone mucky silt loam	Nanticoke and Mannington soils
	Honga peat	Nanticoke silt loam
	Johnston loam	Puckum mucky peat
	Kentuck mucky silt loam	Sunken mucky silt loam
	Kentuck silt loam	Tangier mucky peat
	Longmarsh and Indiantown soils	Transquaking and Mispillion soils
	Manahawkin muck	Zekiah sandy loam and silt loam

Description: These poorly drained soils occupy flood plains and both fresh and brackish marshes. Some lie at elevations where flooding by salt water during high tides or storms is a possibility and trees may be affected by salt spray. The sites are marginal in terms of timber or pulpwood productivity, and access is often very restricted. Many of these areas will be riparian forests and other water-related areas that should be managed primarily for water quality and wildlife purposes.

Other types without Management Groups – Other map units that are too small, are comprised of minor soil types, or are not suitable for forest management.

Soils: Beaches Miscellaneous water Urban Land Water

APPENDIX B – AUDIT SUMMARY – 2022

The 2022 Certification Audit was held and completed in the Spring of 2022. Full reports and summaries of the 2022 and all past Forest Certification Audits are located here: http://dnr.maryland.gov/forests/Pages/forestcert.aspx

WORKS CITED

- Burns, R. M., & Honkala, B. H. (1990). *Silvics of North America, Agriculture Handbook 654* (Vol. 2. Hardwoods). Washington, DC: U.S. Department of Agriculture, Forest Service.
- Frost, C. C. (1998). Presettlement fire frequency regimes of the United States: a first approximation. In T. L. Pruden,
 & L. A. Bennan (Ed.), *Fire in ecosystem management: shifting the paradigm from suppression to prescription, Tall Timbers Fire Ecology Conference Proceedings. 20*, pp. 70-81. Tallahassee, FL: Tall Timbers
 Research Station.
- Pyne, S. J. (1982). Fire in America. Princeton University Press.
- Rountree, H. C., & Davidson, T. E. (1997). *Eastern Shore Indians of Virginia and Maryland*. University Press of Virginia.
- Schulz, R. P. (1997). The Ecology and Culture of Loblolly Pine. In *Loblolly Pine* (pp. 5-14). Washington, DC: U.S. Gov. Printing Office.
- Smith, D. M. (1986). The Practice of Silviculture. New York: Wiley.
- USDA Forest Service. (1986). *Service Forester's Handbook.* Southern Region, State and Private Forestry. Atlanta, GA: U.S. Government Printing Office.