POTOMAC / GARRETT STATE FOREST

ANNUAL WORK PLAN

FISCAL YEAR 2017

Prepared: _____ 7/5/2016
(Forest Manager) Date

Reviewed: _____ 7/22/2016
(Regional Forester) Date

Reviewed: _____ 8/1/16
(Lands Acquisition and Planning) Date

Approved: _____ 8.15.2016
(Environmental Specialist) Date

Potomac-Garrett State Forest
FY-17
Annual Work Plan

Potomac- Garrett State Forest
FY-17 Annual Work Plan

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I. State Forest Overview

The Potomac-Garrett State Forests situated in southwestern Garrett County in Western Maryland have the distinction of being the birthplace of forestry conservation in Maryland. The generous donation of 1,917 acres by the Garrett Brothers in 1906 not only serves as the foundation of the Garrett State Forest, but is the root of both Maryland's present Public Lands system and Forest Service. Mountain forests, streams and valleys make up the nearly 19,000 acres of this State Forest. The forest cover is predominantly a second growth mixed hardwood forest dominated by mixed oaks, sugar and red maples, black cherry, basswood, ash and birch. The geography of this area provides for a wide range of growing conditions from the harsh, wind and ice swept ridge tops of Backbone Mountain to the deep rich slopes above the North Branch of the Potomac River. Much of the State Forestlands contain excellent quality hardwoods.

II. Annual Work Plan Summary

In addition to the routine operations and management of the State Forest, the FY-17 Annual Work Plan for Potomac-Garrett State Forest details five Special Management Projects and nineteen Land Management Projects that will be the focus of the State Forest management staff for FY-17. 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 Potomac-Garrett State Forest Sustainable Forest Management Plan 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.*

A. Special Management Projects Include:

1. **Continued Development of the Certified Potomac-Garrett State Forest Sustainable Forest Management Plan -** with special focus on addressing items identified as in need of improvement as a result of the 2015 FSC/SFI Certification Audits.

2. ESA Management Plan Development – Forest management staff will begin to work with Natural Heritage staff to develop management plans for the 34+ ESA areas identified on the forest.

3. Forest Stand Delineation, Inventory and Monitoring – Completion of the 5- year project to re-inventory and redefine stands on the entire forest. With the initial effort to collect forest wide data completed, FY-17 will allow a thorough analysis of this complete data set from which further management plans will be derived. Inventory work will continue in the form of follow-up monitoring protocols associated with the initial inventory and certification requirements.

4. Non-Native Invasive Species (NNIS) Inventory and Control Work - The Sustainable Forest Management Plan calls for various responses to NNIS and the Forest Inventory Project has allowed for a broad view of the problem forest wide.

5. Lostland Run Recreational Access Restoration Project - In January of 2012, the Governor announced approximately $23 million in the proposed capital budget for public land projects that were to support nearly 300 jobs, help restore the environment, reduce energy usage, and improve services to visitors and citizens. Approximately $800,000 of this will be directed to improving the public access and trail network on the Potomac-Garrett State Forests in 2016. Improvements are planned for *Lostland Run Access.*

B. Land Management Projects Include:

-Continuation of the Watershed Protection Project mitigating impacts of the harmful forest pest carried out as: Hemlock Wooly Adelgid Mitigation / Red Spruce Restoration.

- Continuation of the Ecosystem Restoration Project involving control of invasive, exotic plants forest wide.

-2 Wildlife Habitat Projects affecting 67 ac.; involving 34 ac. of pine thinning and 33 ac. of hardwood thinning to conserve and protect critical wildlife habitats

- 17 Silvicultural Projects including:

15 Intermediate Harvests on 211 acres, and

2 Regeneration Harvests
4-acre Red Pine Salvage/Regeneration Cut

6-acre Hardwood Regeneration Cut

6 Noncommercial Silvicultural practices to promote regeneration including:

3 Projects to control interfering and undesirable tall woody vegetation to promote seedling establishment over 65 acres;

3 Projects to control interfering and undesirable fern, grass and dewberry to promote seedling establishment over 108 acres;

Forest harvest operations are undertaken to utilize mature and dead/dying/diseased trees; to thin overstocked stands; to improve and diversify wildlife habitat; to effectively correct public safety concerns and issues; to reduce the forests vulnerability to insect attack, disease or wildfire hazard; to facilitate certain approved research needs; to improve certain aesthetic aspects of an area; and to improve the proportions of age class and species diversity within stands and management blocks. This forest has been intensively managed for over 100 years, utilizing both even and uneven-aged techniques via selective removals and regeneration harvests. Early records indicate that as cut over land was acquired, foresters 'culled' the forest, removing the poorly formed and damaged timber left behind in the wake of the cut and run practices employed by early timber speculators. By removing these undesirable trees, newly forming seedlings were released from competition and were thus cultured into the future growing stock of trees that we enjoy today. The benefits of this work have been significant including: improved wildlife habitat diversity, improved forest health and more abundant mast production, improved utilization of gypsy moth damaged trees, reduced forest fire hazard, and the considerable financial contribution of management to the State and local economies, as well as to those employed in the forest products industry.

The FY-17 Annual Work Plan calls for 13 harvests on 288 acres, accounting for the harvest of approximately 770,000 Bd. Ft. of saw timber, putting an estimated $197,188 worth of raw wood products out into the local markets. Much of the silvicultural work laid out in this work plan is focused on initiating seedling development to better insure regeneration successes in future harvests. Much of the value of the harvests in the work plan will be directed back into the forest providing the essential investment in pre-harvest cultural work that will assure the long term sustainable management of these important forest resources.

The cultural operations and management projects outlined within the FY-17 Annual Work Plan are selected to provide significant contributions to sustainability of the forest resources found within the Potomac-Garrett State Forest and the ecosystems associated with it.

III. General Location Maps for FY-17 Land Management Proposals

Map Key

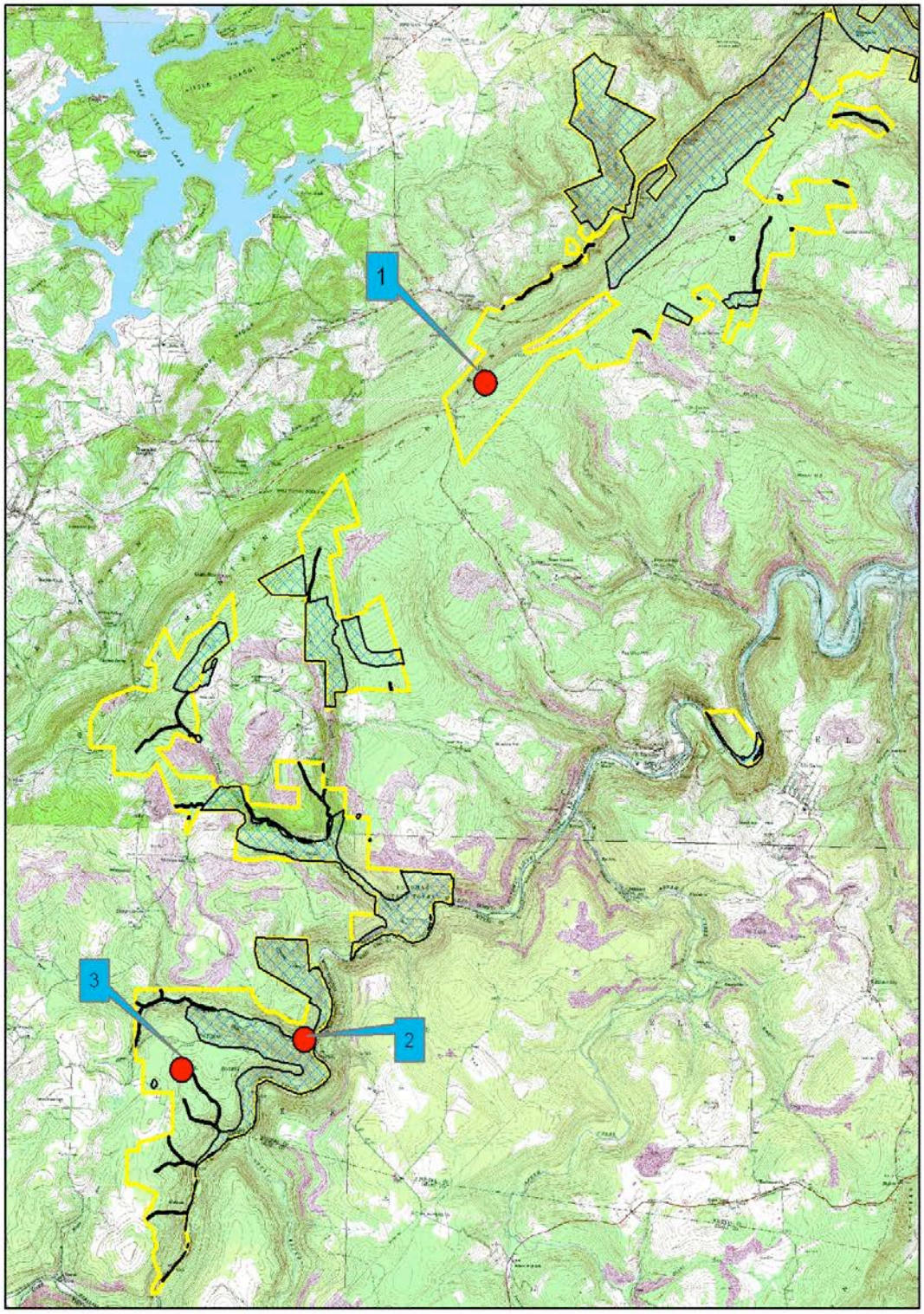
Potomac State Forest

1. Comp. 7-Stand 5 (Pre-harvest Treatment of Interfering Veg.)
2. Comp. 21a– Stands 1&2 (Seed cut)
3. Comp. 25-Stand 14 (ESA Management / Thinning to Retain Habitat)

Garrett State Forest

1. Comp. 32-Stand 5 **(**Pre-harvest Treatment of Interfering Veg.)
2. Comp. 32-Stand 6 (Pre-harvest Treatment of Interfering Veg.)
3. Comp. 32-Stand 7 **(**Pre-harvest Treatment of Interfering Veg.)
4. Comp. 32-Stand 33 (Thinning and Treatment of Interfering Veg.)
5. Comp. 33-Stand 11/ 34-1 (Thinning)
6. Comp. 40-Stand 1(HCVF Thinning to Retain Habitat)
7. Comp. 43 -Stand 5 (Shelterwood)
8. Comp. 43-Stand 7 (Regeneration Harvest)
9. Comp. 44-Stand 2 (Regeneration Harvest)
10. Comp. 44-Stand 3 (Thinning)
11. Comp. 44-Stand 4 (Thinning)
12. Comp. 44–Stand 8 (Shelterwood)
13. Comp. 44–Stand 10 (Thinning)
14. Comp. 44-Stand 11 (Shelterwood)

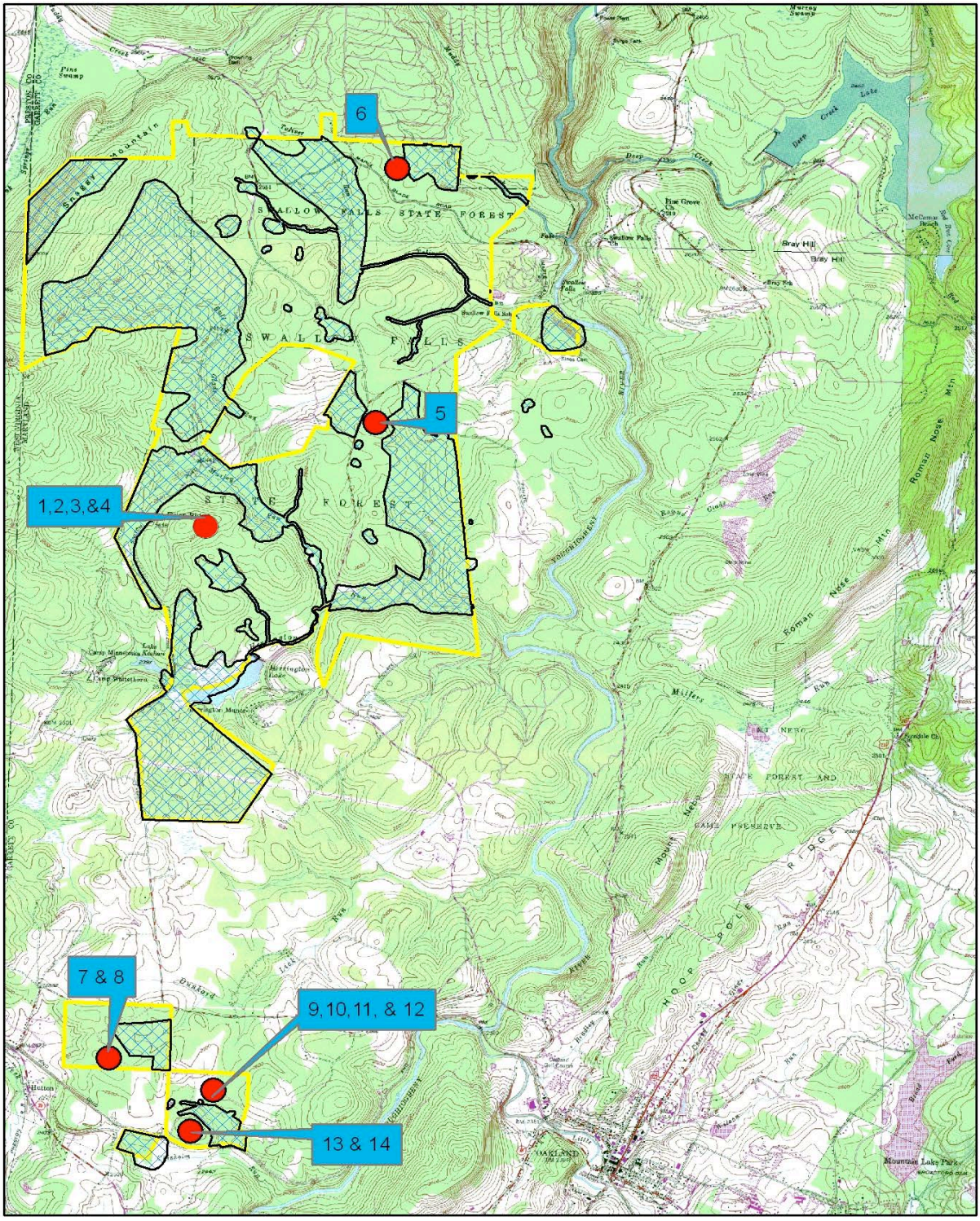
Potomac State Forest
FY-17 General Location Map



1:100,000

High Conservation Value Forest (Total)

Garrett State Forest
FY-17 General Location Map



1:60,000

High Conservation Value Forest (Total)

N
W E
S

IV. Special Projects - Forest Resource Management and Planning

A. Continued Development of the Certified Potomac-Garrett StateForest Sustainable Forest Management Plan.

(This work done with special focus on addressing items identified as in need of improvement as a result of 2015 FSC/SFI Certification Audits.)

Beginning in 2011, the Forest Service began revising the long term sustainable management plans for all three of the State Forests in the Western Region. The initial framework follows the sustainable management plan format established for the State of Maryland's Chesapeake Forest on the Eastern shore. The Department's goal is to have the updated sustainable forest management plans receive dual third party certification under both the Forest Stewardship Councils (FSC) and Sustainable Forestry Initiatives (SFI) standards and guidelines.

Throughout the course of the last two years, broad resource assessments were carried out identifying the various management units and features located on the forests including identification and mapping of High Conservation Value Forest Areas (HCVF), much of which was formerly identified as the State Forests "Special Management Zone". Within the HCVF are located a broad range of Ecologically Significant Areas (ESA). These areas typically contain rare, threatened or endangered species and their critical habitats. Management schemes for the ESAs on Potomac–Garrett State Forest will be developed in the winter of 2011. By spring of 2011 initial drafts of the Forest's Sustainable Management Plan were developed and shared with stakeholders for initial comment and review. The plans were submitted to both the FSC and SFI organizations in the spring of 2011, at which point audits have been completed on all three of the western State Forests. Following the audits, draft plans and audit findings were presented to the State Forests Citizen Advisory Committees for review and comments. The Draft Sustainable Management Plans were made available for public comment fall of 2011.

Each year the State Forests Management Program is audited for compliance to the standards set forth by the Certifying Organizations. Any shortcomings in the programs identified during the audits are identified in a Corrective Action Reports (CARs) and/or observations identified as being in need of improvement in order to be "certified" as sustainably managed forest lands under the internationally recognized FSC and SFI standards. These corrective actions vary from simple formal documentation of routine practices, to more complex policy and procedure development involving various stakeholders and partners. The program requires that all of these items be addressed before the next annual audit, with some needing more immediate attention. The 2014 audit turned up 13 minor CARs or observations that are to be addressed by the next audit. (See Appendix 1 for brief summary of audit findings.) State Forest staff time and field operations are adjusted and redirected to assist in addressing these Corrective Action items in the course of the next year.

B. ESA Management Plan Development

Thirty-four Ecologically Significant Areas have been initially identified on PGSF. Each area harbors unique habitats and sensitive communities that generally contain RT&E species. These communities are in need of special conservation measures. In the winter of 2016, these areas will be reviewed with the region's Natural Heritage Biologist to develop site specific management plans to identify conservation measures appropriate for each ESA. This will be done in order that these significant features are not just assumed protected by steering direct management activity away from them, but rather actively identifying appropriate management practices that may increase the stability and long term existence of the communities and habitats that make up these ESAs. These ESA plans will be incorporated into the Potomac-Garrett State Forest Sustainable Forest Management Plan before the next audit cycle.

C. Forest Stand Delineation, Inventory and Monitoring

A critical part of developing long term sustainable management plans is the availability of up-to-date forest inventory data. To this end, the State Forests' staff has been fully engaged in revising the forest stand delineation on the forests. The process continues to consume considerable staff resources as this project is taking shape. This ambitious undertaking has involved collecting detailed inventory data on both overstory and understory conditions over the entire State Forest. The data has been collected and analyzed using the SILVA Inventory System developed by the USFS.

The project involves collecting information on some 22,200 sample points. As the data must be collected during full leaf out seasons between hard frost dates, the working window is five months. The work force of skilled technicians available to us are generally college students that can only offer us three months work before returning to school. To this end, the project is expected to take 4-5 years to complete and will cost approx. $20,000/yr. Our two full time technicians lead and manage this special project on top of their full work load implementing the Annual Work Plan on the forest. The stand delineation and inventory project has resulted in the pulling of one man from his normal duties for the equivalent of approximately six months time each year of the project to serve as crew leader, provide project planning and processing data. Staff assignments and field operations have been adjusted to assure the timely and accurate completion of this important field level assessment that will serve as the basis which we will draw management decisions from for the next 10-15 years.

With the close of the 5th inventory season in FY-16, initial data collection has been completed on this stage of the forest monitoring program. FY-17 will commit time and resources to do final processing of this data from which we continue to draw upon for management planning direction. The demand for this important data set is increasingly evident as special projects evolving out of demands placed by Forest Certification Standards, are utilizing portions of this work in progress / partial data set for project planning. Examples include the NNIS Inventory and Control Project in the ESAs on Potomac State Forest, as well as each years FY-Annual Work Plan.

What had historically been carried out on a 10-year interval, offering a 'snap shot' in time view of the forest, has evolved into a regular (annual) sampling approach that gives a more frequent look at overall forest condition throughout the years. This approach will allow a much closer watch on developing forest conditions and allows for a more rapid and timely response. This approach is especially valuable in light of the numerous and frequent introductions of foreign insects, diseases, and invasive plants that can rapidly disrupt forest systems. The initial 'Stand Delineation and Inventory Project' will be continued as a Forest Monitoring program as required under certification in order to allow for documented observations of changing conditions throughout the forest. Program focus will include: monitoring of developing regeneration sites allowing for the timely response to the investment in intensive silvicultural work such as herbicide control of invasive and interfering plants, fencing, and prescribed fire; NNIS monitoring and control work (beyond the special project area identified in this AWP below); silvicultural results with respect to management objectives and outcomes and recreation / visitor impacts, etc.

D. Capital Improvement Fund Projects – To Enhance Recreation and Trails

In January of 2012, the Governor announced approximately $23 million in the proposed capital budget for public land projects that will support nearly 300 jobs, help restore the environment, reduce energy usage, and improve services to visitors and citizens. Approximately $800,000 of this will be directed to improving the public access and trail network on the Potomac-Garrett State Forests in 2016-2017.

1. Lostland Run Area - Recreational Access Restoration Project

Improvements are planned for the *Lostland Run Area - Recreational Access.* This project will dedicate $800,000 to restore 3.0 miles of multi-use trail and access road. Improving public access to 2,189 acres of State Forest lands and Potomac River access to increase recreational opportunities for: fishermen, hiking, biking, hunting, campsite access, horseback riding, and other nature based recreation. Work will include grading and reshaping road and trail beds, correcting/restoring drainage, replacement of failing water control devices (culverts, ditches, swales etc.) and stone resurfacing and parking lot improvements. Trails to be addressed include the Lostland Run Road, an improved gravel road which provides motor vehicle access to campsites, day use, and fishing areas, as well as trail heads for the 3.0 mile long Lostland Run Hiking Trail. The State Forest management staff has developed initial 'scope of work' proposals. The project was put out for bids in fall of 2015 with the work to be completed in 2016.

V. Maintenance and Operations

Aside from the detailed cultural work planned for the State Forests, the following is a partial list of projects that are often on-going from year to year and are an integral part of State Forest operations.

A. Maintenance and Management of Roads and Trails

PGSF staff maintains 59 mi. of roads and trails including 37 miles of improved road and 22 mi. of multi-use trails. This work is ever on-going. A lack of sufficient road maintenance budget makes the upkeep of this road and trail system a considerable challenge. A reduction in ORV Permit revenue has left a considerable void in the routine maintenance budget of the State Forest. In FY-13 $12,000 from 'ORV Permit Funds' was budgeted for maintenance to ORV trails and primitive roads on PGSF. In subsequent years, the limited ORV Permit Funds available were redirected toward new trail construction on Savage River State Forest. Preliminary projections for FY-17 ORV Funds for PGSF are also zero. In order to attempt to meet this challenge, alternative sources are continuously sought to provide the necessary equipment, labor and materials required for the routine maintenance and improvements needed to sustain this aging and primitive transportation system.

In FY-16/17 maintenance staff will be involved in the coordination of private contractors carrying out over **$800,000** worth of planned capital improvements and critical maintenance associated with the *Lostland Run Area, Recreational Access Restoration Project* (improvements to this motorized-use trail.) As this will require considerable attention, maintenance staff will concentrate remaining time on basic maintenance on the segments of multiple-use and motorized-use trails that have been rehabilitated using National Recreation Trail Grants over the past 5 years, as well as routine maintenance of the roads and trails as outlined in the roads maintenance plan.

In addition to the regular and routine business of road and trail maintenance, as a result of the State Forests Certification Audit, State Forest staff has developed a formalized transportation plan in which the entire transportation (road and trail) network has been inventoried and assessed for management, use, and maintenance needs. From this assessment, the State Forest Manager will develop a maintenance plan geared toward making the road and trail system sustainable. Information gathered for this plan is presently being used to prioritize improvements to be made with the access trails grant referenced above, NRT Grant funds, Critical Maintenance Projects, etc. As work is contracted out, plans will be updated with regard to needs.

B. Boundary Line Maintenance

PGSF has 130 miles of boundary line, including interior lines, exterior lines, and road frontage. Boundary maintenance is critical to the management of all public lands. In order to keep up with this effort, PGSF maintains approximately 30 miles of line each year. In addition to routine marking/painting, considerable effort is spent on researching relocating or establishing missing and/or new line, as well as addressing boundary conflicts. As conflicts arise, every effort is made to resolve the issue in a timely and professional manner. Often, this work leads to the need for a licensed surveyor and legal recourse in order to resolve the issue. Boundary work in FY-17 will focus on resolving known boundary conflicts and routine maintenance of located boundary lines.

C. Campground Operation and Maintenance

PGSF offers year round, primitive camping in five separate areas of the State Forest; Lostland Run Area, Laurel Run/Wallman Areas, Snaggy Mt. Area and Piney Mt. Area. Within each area is a 'group site', a rustic trail shelter and several primitive campsites offering a picnic table, lantern post/table and fire ring. From 2003-2009, vault toilets were installed in each of the five areas to improve sanitary conditions for campers and forest visitors. Campsites and trail shelters are available on a first-come, first-served basis. A self-registration kiosk is available at the entrance to each area. Additional seasonal staff is hired to operate and maintain the campgrounds during peak summer use to provide a quality camping experience.

Maintenance and operation of these primitive campsites includes: managing group site reservations; maintenance of information / bulletin boards; camper contacts to insure policies are understood; self registration fee collections and deposits; weekly site inspection and cleaning; hazardous tree evaluation and removals; grass mowing (typically the week before the summer holidays and otherwise as needed); maintenance and replacement of picnic tables, lantern posts, and fire rings; site impact monitoring.

D. 3-D Archery Range Maintenance and Management

PGSF offers the only 3-D Archery Range in the State's Public Lands System. The facility is located behind the State Forest Headquarters. The range offers a 30-target course, with four separate skill levels at each target. The facility is open April 1st - Oct. 1st, dawn to dusk.

Maintenance and operation of this facility includes: promotion of the facility; maintenance of information / bulletin boards; weekly inspection and cleaning; periodic maintenance and replacement of targets; hazardous tree evaluation and removals; brush removal as needed; site impact monitoring, annual overhaul and patching of targets; seasonal set up and take down for the off season.

E. Interpretation and Education

With limited staffing resources, interpretive efforts have been focused on Sustainable Forest Management Programs for targeted audiences using the interpretive features at the “Kindness Demonstration Area”. Targeted audiences have been Agricultural and Natural Resource Leaders, Extension Service, Forestry Boards, forest land owners, and forest land managers. The facility is set up as a self-guided lesson in forestry and wildlife management practices, and is available to groups and individuals wishing to learn more about managing forests.

VI. Recreation Proposals

A. Capital Improvement Fund Projects – To Enhance Recreation and Trails

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B. National Recreation Trails Grant Requests – To Enhance Recreation and Trails

Potomac-Garrett State Forest has submitted three National Recreation Trails Grant Requests to fund enhancements to various recreation trails on the forests.

1. Fire Tower Trail Resurfacing and Erosion Control - $37,540

($30,000 Requested Grant funds with $7,540 matching funds for ‘in kind’ services)

This project will involve resurfacing .75 miles of Fire Tower Trail, to include resurface and top dress the gravel surface with compacted crushed stone; to restore proper drainage and sufficiently harden the traveled trail surface on the Fire Tower Trail.

This trail serves as an extension off the Snaggy Mountain ORV Trail network, providing motorized access to the 845-acre ‘Wilderness Ranch Area’ of the Garrett State Forest and the Trail Head to the Wilderness Ranch Hiking Trail. The project will stabilize the severely eroded trail bed and reduce sediment loading into the adjacent Bull Glade Run, Ecologically Sensitive Area.

2. Hutton Handicapped Access Trail Resurface and Erosion Control - $38,143
($30,000 Requested Grant funds with $8,143 matching funds for 'in kind' services)

This project will involve resurfacing 1.2 miles of Hutton Handicapped Access Trail, to include grading and top dress the gravel surface with compacted crushed stone; to restore proper drainage and sufficiently harden the traveled trail surface on the Hutton Handicapped Hunter Access Trail.

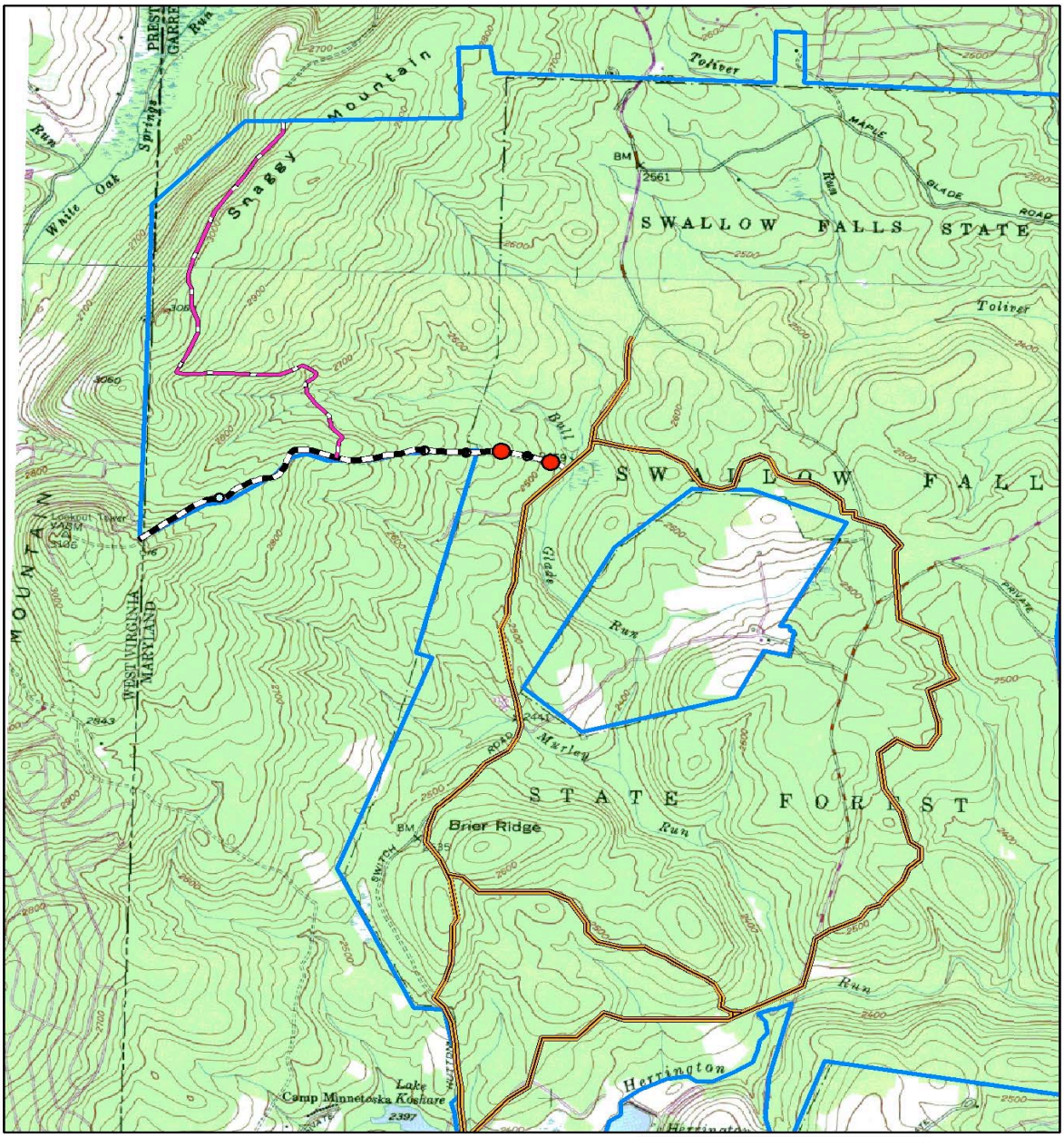
This trail is part of a network of 7 motorized-use trails that serve as Handicapped Hunter Access Trails. These trails offer a total of 4.3 miles of quality hunting opportunities for mobility challenged hunters. The trails allow the permitted user to gain access into larger forested tracts otherwise not accessible to them. This particular project will improve trail bed conditions, improve drainage, stabilize trail bed and provide appropriate conditions suitable for Handicapped Hunter Access.

3. Potomac/Garrett Trail Maintenance Labor - $36,000
($30,000 Requested Grant funds with $6,000 matching funds for 'in kind' services)

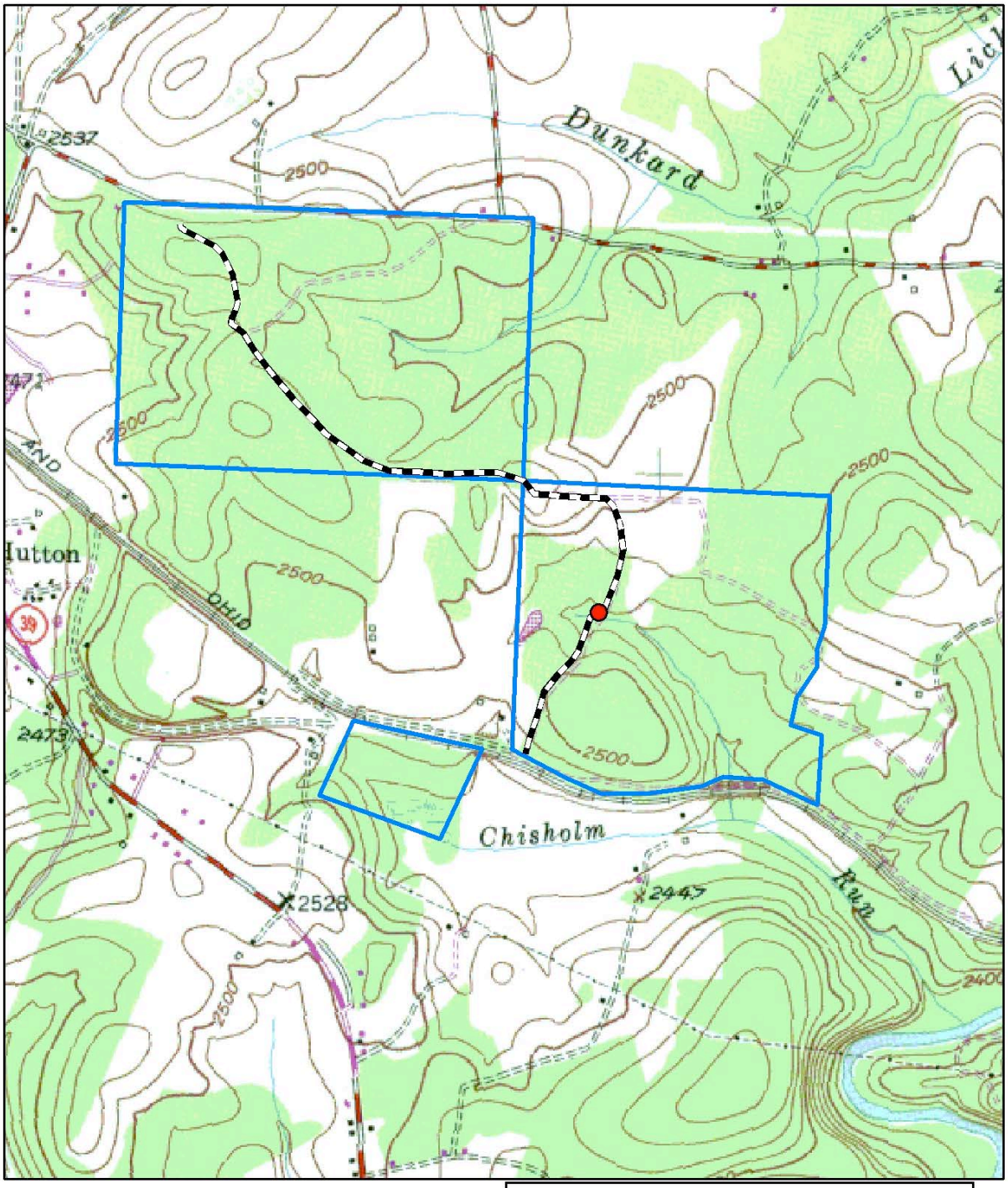
This project will support contractual staff for maintenance and operation of the 80+ miles of recreation trails at Potomac-Garrett State Forest. The PGSF trail system is designated for multiple recreational activities, including hiking, mountain biking and hunting access. Potomac-Garrett State Forest is a heavily visited recreational destination for people from Baltimore and Washington, DC areas and draws approximately 47,088 visitors annually. Many of these outdoor enthusiasts visit PGSF to enjoy its hiking trails, mountain bike trails, motorized forest roads and overlooks. All sites are accessible and impacted by motorized vehicles and people. This project benefits the recreational trail user by keeping the existing public recreation resources on the forest functional, safe, sustainable, clean and beautiful.

This project requires no additional planning or design. All environmentally sensitive areas are identified and accounted for. The project enhances tourism/economic development opportunities within Garrett County.

Firetower Trail Resurfacing and Erosion Control



Hutton Handicapped Access Trail
Resurfacing and Erosion Control



State Forest Boundary

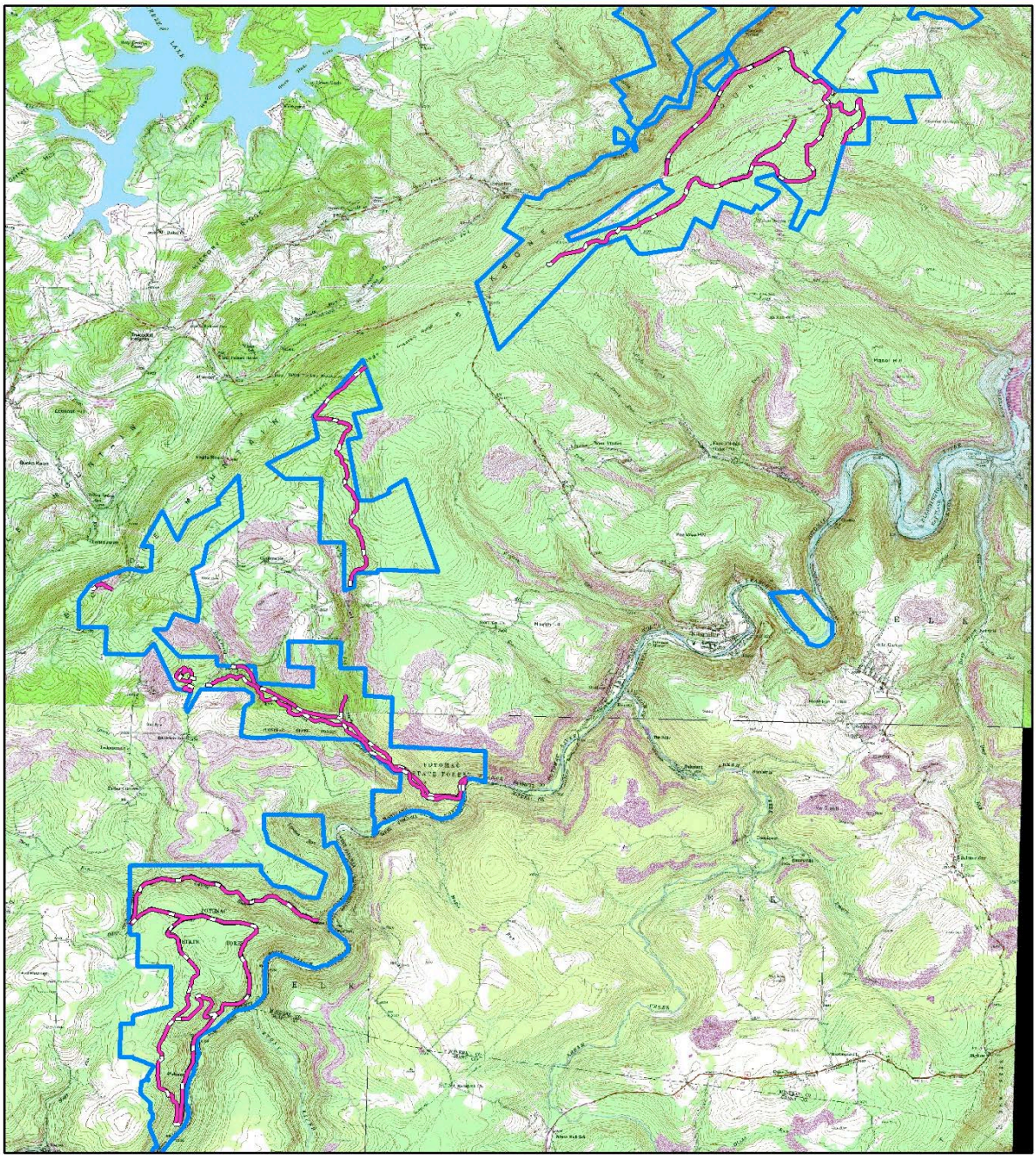
Handicapped Hunter Access Trail

Culvert

0 445 890 1,780 2,670 3,560 Feet

N

Potomac Trail Maintenance

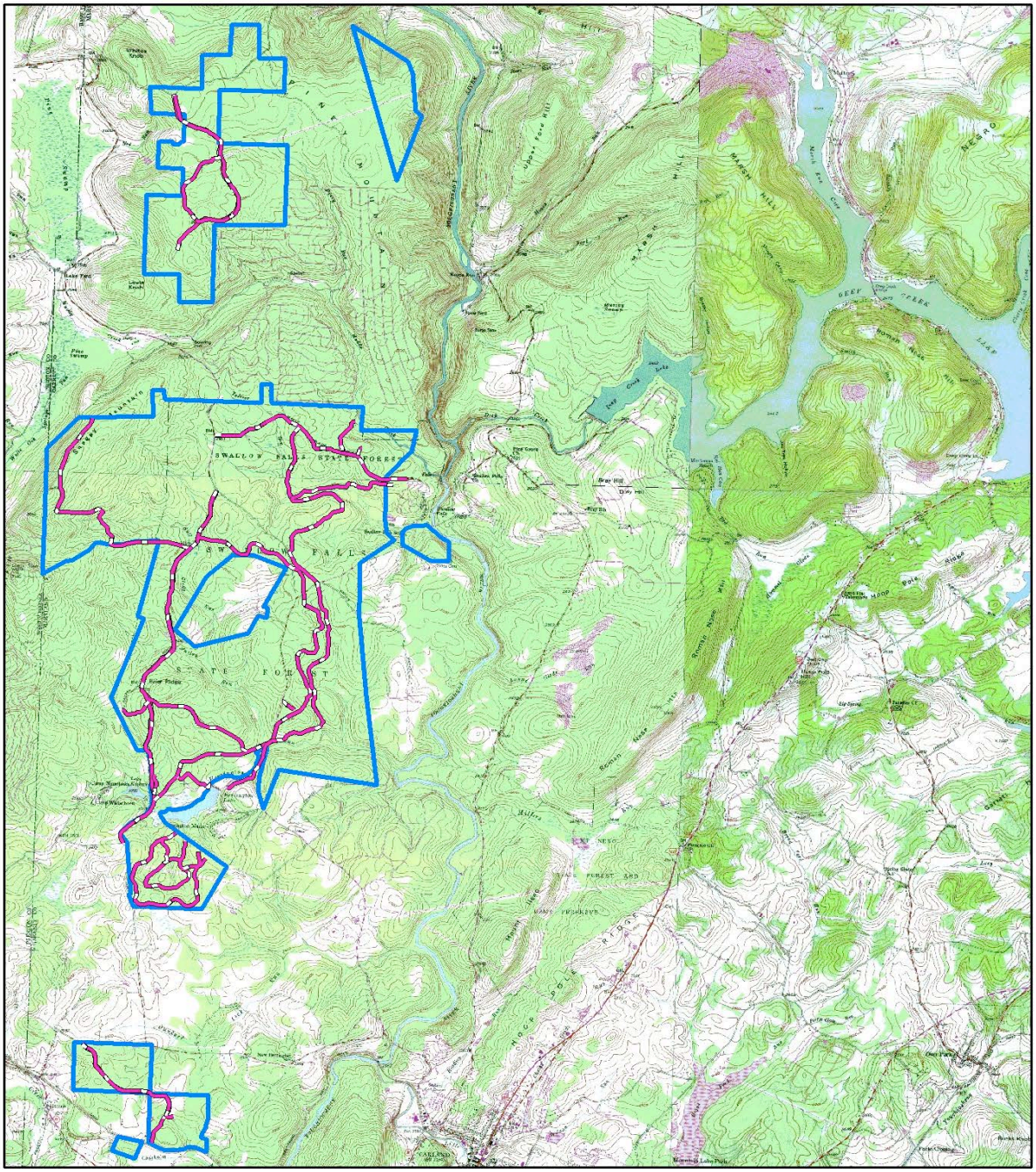


0 2,750 5,500 11,000 16,500 22,000
Feet

State Forest Boundary
PGSF Trails

N

Garrett Forest
Trail Maintenance



0 2,400 4,800 9,600 14,400 19,200 Feet

State Forest Boundary
PGSF Trails

N

VII. Watershed Protection

COMPARTMENT 19 **FY-17**
Lostland Run HWA Mitigation / Red Spruce Planting

Description

In 2004 the significant forest pest, Hemlock Wooly Adelgid (HWA), was discovered in the Lostland Run drainage. This Asian, exotic, insect pest is a killer of hemlock trees. It has been in the U.S. since 1924. With no natural enemies in this country, it has left a trail of dead hemlock forests in its wake. MD Dept. of Agriculture and State Forest staffs have been monitoring the infestation in Lostland since its discovery. The population has remained at a low level. Winter temperature extremes here in Garrett County appear to be keeping the population in check. Presently, there are limited available biological or chemical controls suitable for stand level control of this pest, though on-going research is showing positive results with a number of biological controls including predatory insects. Soil drench and/or tree injection methods are being used to control certain selected, critical, or important smaller stands and individuals; most notably such treatments in the Swallow Falls State Park and adjacent stands on the Garrett State Forest.

Historically, stands infested with HWA have been relatively short lived, resulting in complete stand conversions often in the course of one decade. As hemlock stands on the State Forest are generally associated with riparian forested stream buffers, the loss of these stands may have significant negative impacts to the water resources.

Evidence of the impending mortality is becoming more noticeable. HWA can be found throughout the entire drainage, and trees in several locations are beginning to show signs of stress as a result of the infestation. In order to provide further protection against the shocking loss of the hemlock trees, the State Forest staff has initiated a project to mitigate the likely loss of the hemlock cover. In an attempt to establish a native conifer that will provide benefits similar to those offered by the hemlocks, test plots of Red Spruce seedlings were planted beneath the hemlock canopy in both the spring of 2007 and 2008. In the spring of 2009, 500 Red Spruce seedlings were planted in the riparian buffer zone. These plantings have been monitored, and planting methods have been modified to insure the best possible survival in this difficult planting site. Analysis of these three test plantings indicate that the dense shade present in these relatively undisturbed hemlock/hardwood riparian forests does not allow sufficient sunlight to penetrate to the forest floor for the successful establishment of even the very shade tolerant red spruce seedlings. Our observations indicate that forest floor light levels must be increased in order to allow the seedlings to be able to photosynthesize and become established.

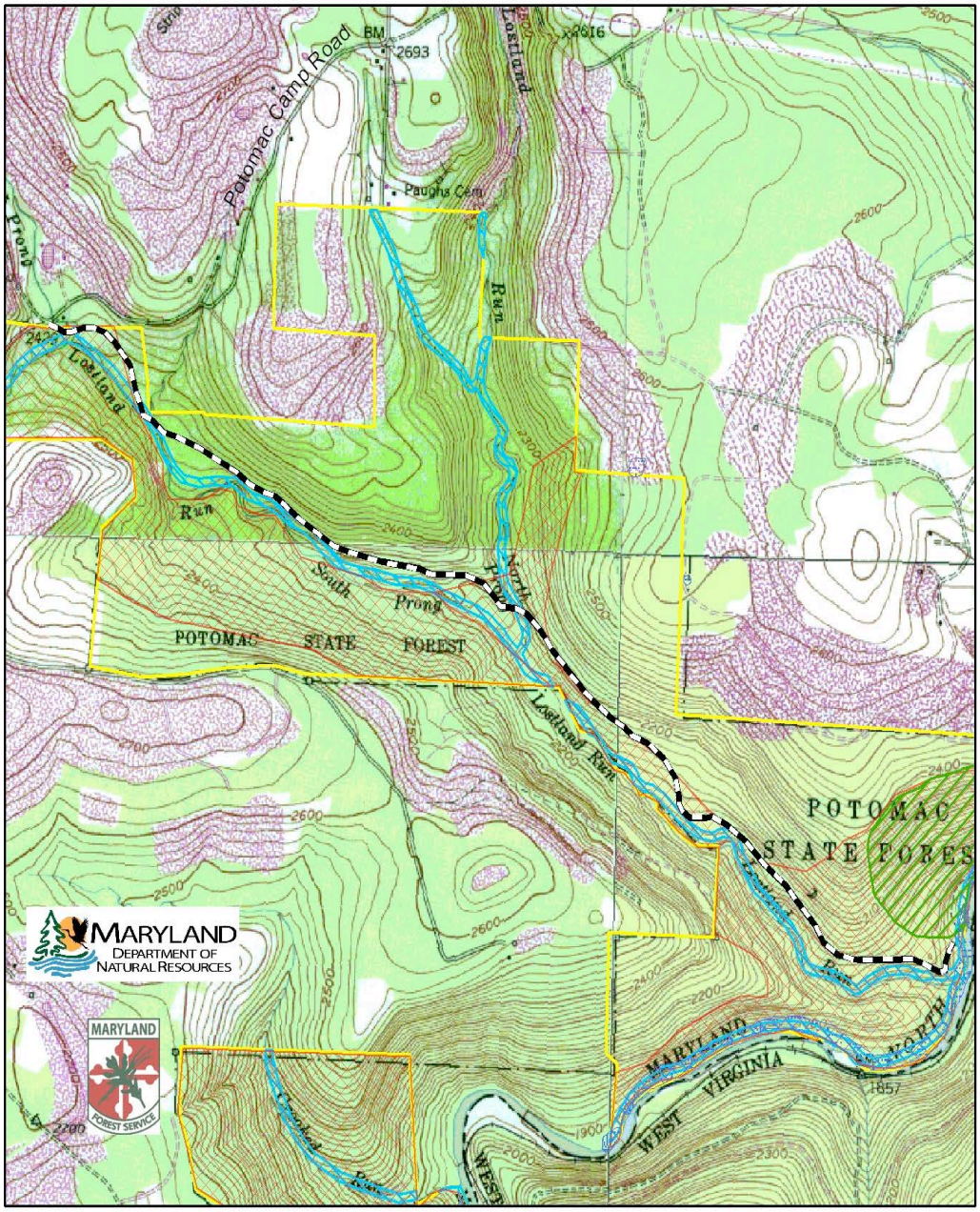
Further research and experimentation with control of the available light is necessary to determine if under planting with Red Spruce is a viable option that may offer a natural means of off setting the negative impacts associated with the likely loss of the hemlock stands along this important brook trout stream.

Management and Silvicultural Recommendations

In 2013/2014 State Forest staff establish three 1-acre planting sites that have varying levels of understory light controls carried out by having thinned these sites “from below”, reducing the basal area of the stands by 10-30 %, focusing on removing stems from the 1 inch diameter class and up until desired stocking was met. Each of the sites was planted with 100-200 Red Spruce seedlings. The tops of all trees cut were left on the forest floor to serve as a protection from deer browsing the seedlings. All hardwood stumps were treated with appropriate herbicide to prevent sprouting. These plantations first year survival rates were 62-87%. The small sample size and considerable variability in specific site conditions does not allow for development of tight prescription parameters. However, the success of these plantings seems to indicate that this general ‘thinning from below’ approach provides conditions better suited to the establishment of the nursery grown seedlings in the deep shade of this riparian buffer area. Successful treatments are to be duplicated in FY-17 with an additional 3 acres treated and planted within the riparian buffer of the stream.

The objective is to determine what measures are necessary to successfully establish Red Spruce seedlings that may eventually replace the hemlocks in the 100 ft. riparian zone along Lostland Run. Once regeneration measures are determined, the goal is to establish an approximately equal area of seedling spruce cover along the hemlock covered stream bank. If research and development in forest pest management does not provide the key to successful HWA eradication and hemlock protection in the next 10-20 years, the establishment of a healthy under story of Red Spruce of equal acreage may buffer the stream against the shock and likely inevitable loss of hemlock cover, further safeguarding the water quality of this mountain stream.

Compartment 19 Lostland Run HWA Mitigation/ Red Spruce Underplanting FY-17



Compartments.....18,19,20,21

39 22' 54.69" N 79 16' 41.63" W

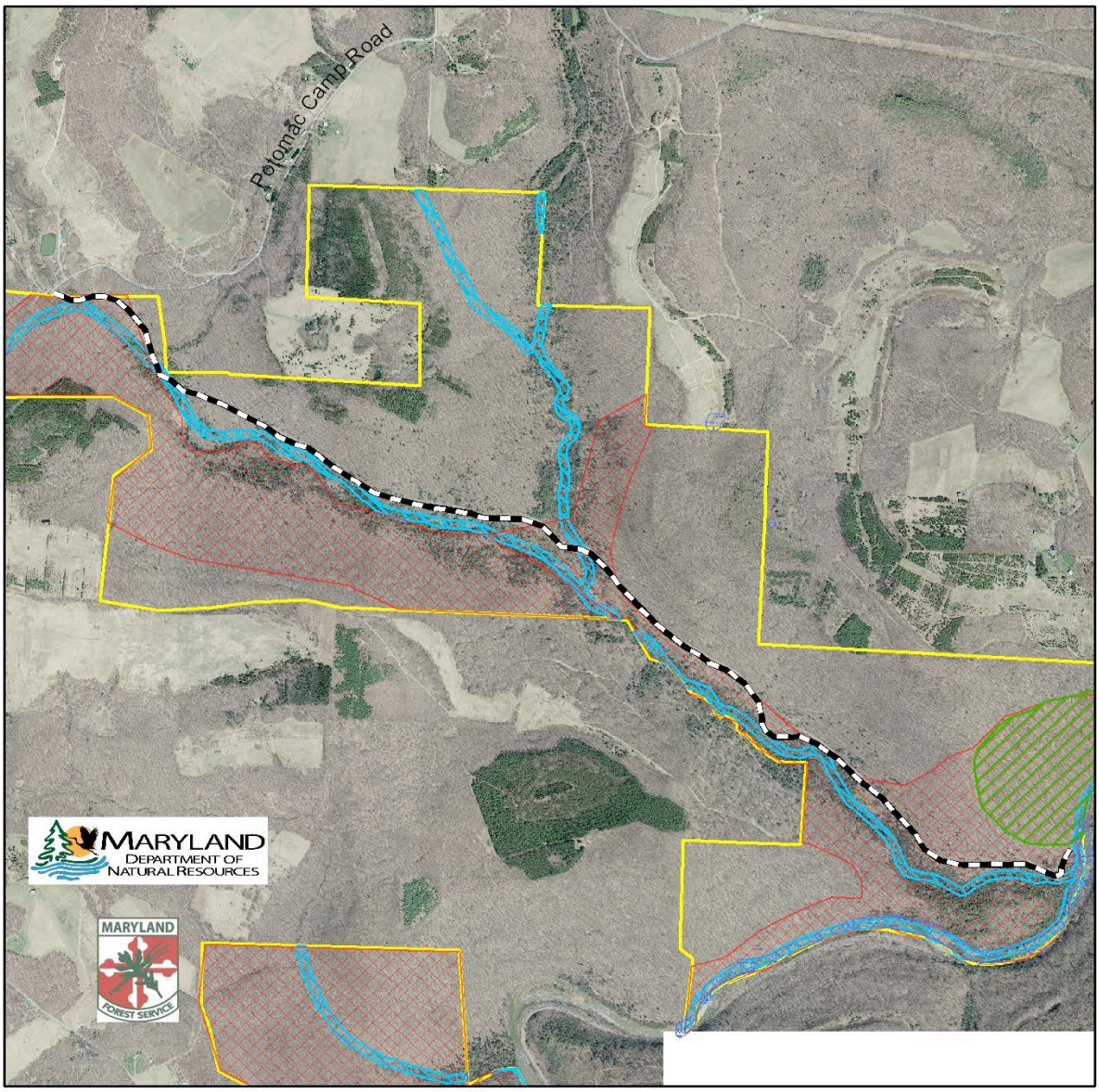
0 6501,300 2,600 3,900 5,200 Feet

HCVF Components

- Old Growth and 300' Buffer
- Old Growth
- Wildlands
- Wetlands of State Concern and 100' Buffer
- Ecologically Significant Areas
- Streams and 50' Buffer
- Wetlands w/ 50' Buffer
- Lostland Run Road

N W E S

Compartment 19 Lostland Run HWA Mitigation/ Red Spruce Underplanting FY-17



Compartments.....18,19,20,21

39 22' 54.69" N 79 16' 41.63" W

0 650 1,300 2,600 3,900 5,200 Feet

HCVF Components

- Old Growth and 300' Buffer
- Old Growth
- Wildlands
- Wetlands of State Concern and 100' Buffer
- Ecologically Significant Areas
- Streams and 50' Buffer
- Wetlands w/ 50' Buffer
- Lostland Run Road

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VIII. Ecosystem Restoration / Protection Projects

A. Non-Native Invasive Species (NNIS) Control

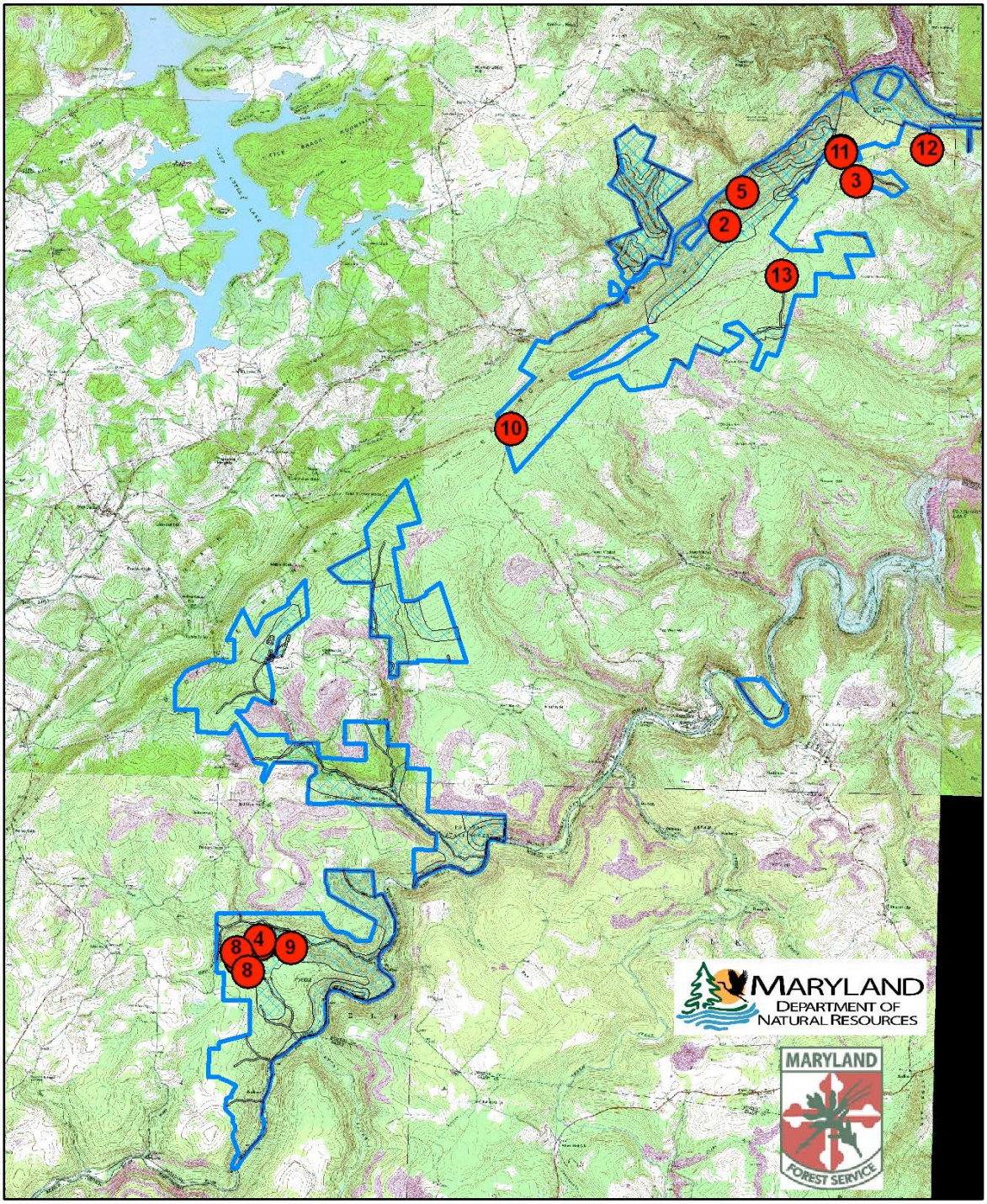
Across the State, a biological invasion of non-native plants is spreading into our fields, forests, wetlands and waterways. Variously referred to as exotic, non-native, alien, or non-indigenous, invasive plants impact native plant and animal communities by displacing native vegetation and disrupting habitats as they become established and spread over time. Early Detection and Rapid Response (EDRR) to control the spread of problematic species is important for the conservation of our native flora and fauna. Control efforts often require considerable resources (labor, time and money). As in many cases, the introduction of these widespread and invasive plants cannot be prevented. It is important to evaluate and plan control efforts in order that such efforts contribute meaningfully to the success of forest conservation plans. EDRR efforts targeting NNIS discovered during the forest wide inventory have been successful in identifying and controlling a number of NNIS populations. State Forest staff has treated and are monitoring the following sites:

1. Tree of Heaven
2. Japanese Knotweed
3. Mile A Minute
4. Tree of Heaven
5. Tree of Heaven
6. Japanese Knotweed
7. Japanese Spirea
8. Tree of Heaven
9. Tree of Heaven
10. Japanese Knotweed
11. Japanese Knotweed
12. Japanese Knotweed
13. Mile A Minute
14. Japanese Barberry

(see corresponding map for locations.)

These aggressive non-native invasive plants are found throughout Garrett County, but are not considered to be established on PGSF. The small colonies are now part of our long term monitoring program, with follow-up treatments planned as necessary in the interest of preventing these species from establishing themselves in the otherwise natural forest communities in which they were found.

Potomac State Forest
N.N.I.S. Monitoring Sites



Monitoring Sites

High Conservation Value Forest (Total)

N
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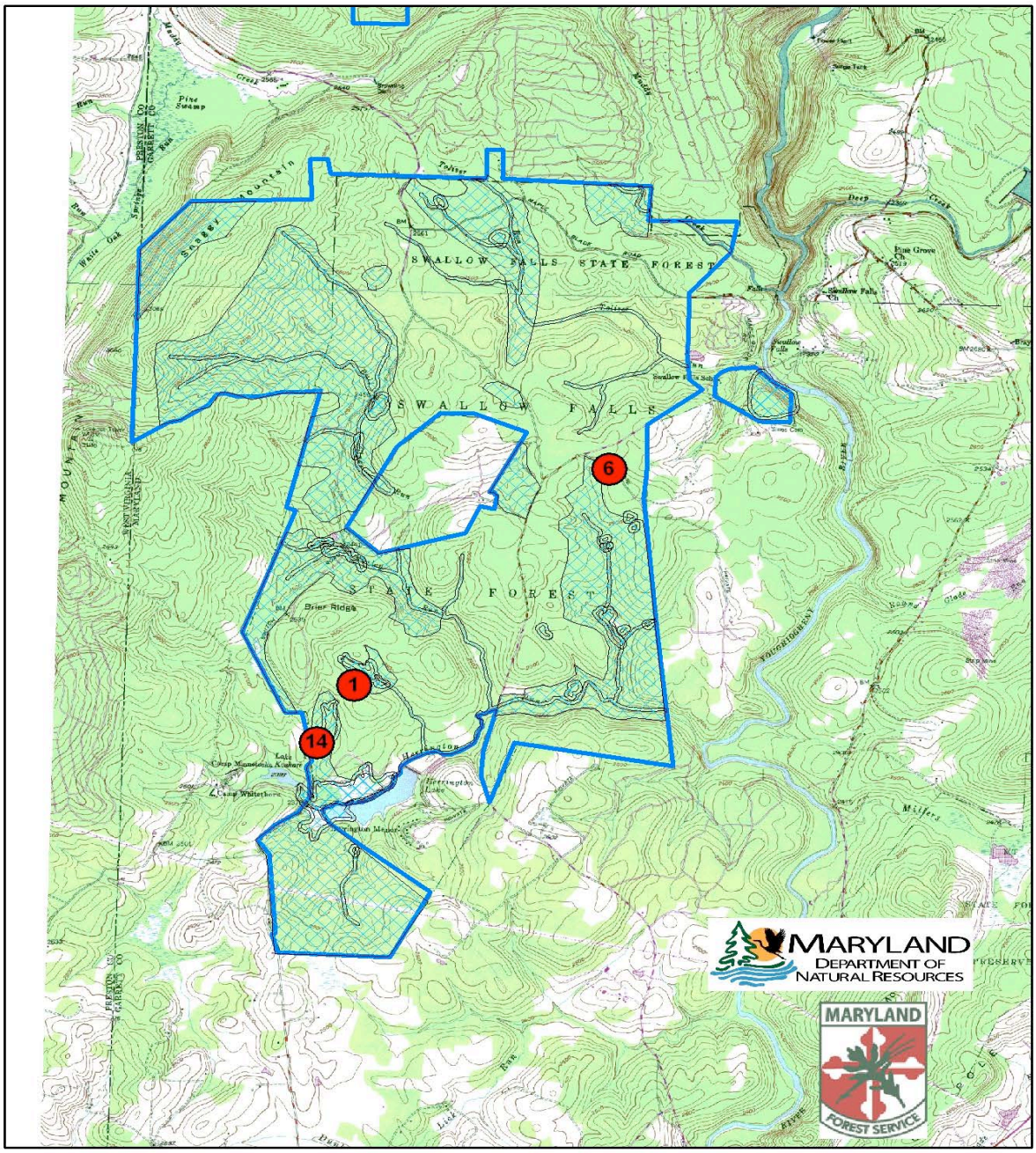
S

Garrett State Forest
N.N.I.S. Monitoring Sites



Monitoring Sites

High Conservation Value Forest (Total)

N
W
E
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IX. Wildlife Management Proposals

COMPARTMENT 25 Stand 14 **FY-17**
(ESA Management / Thinning to Retain Habitat)

Description/Resource Impact Assessment

Location: This area is generally situated on the west side of the State Forests Loop Road Snowmobile Trail, approximately 0.33 miles beyond the gated trail head on the Wallman Road, within Compartment #25 Stand 14 of the Potomac State Forest. This stand falls within an 'Ecologically Significant Area' with a history of containing critical habitat for a 'State Endangered Species'. The species was last recorded as using the area in 2006 and was first found in 2001.

Forest Community Type and Condition: This 22-acre site contains a 95 year old Mixed hardwoods stand. The overstory is made up primarily of Red Maple (40%), Red Oak (27%), Sugar Maple (14%), and White Oak (10%). This stand is overstocked at 87% relative density and 133 sq.ft. BA/acre. Typical of such heavily stocked stands, there is little or no established desirable regeneration present(<10% of the area contains sufficient desired regeneration.)

Interfering Elements: Deer browse pressure in this area is estimated to be moderate to high and must be addressed when considering regeneration efforts on this site. Interfering plant competition poses a significant impediment to future regeneration with 68+% of the site harboring some form of undesirable plant competition. Tall woody interference occurs on 68% of the site; this comprised largely of Witch Hazel, Serviceberry and Black Birch. Much of the balance being otherwise desirable species that have been severely damaged by the heavy wet snow associated with Super Storm Sandy in October 2012. Problematic, dense fern or 'grasses' cover 25% of the forest floor, further impeding seedling development. Non-native invasive species, (NNIS) were observed on 10% of the observation plots including primarily Multiflora rose. No significant insect pest or diseases were observed.

Historic Conditions: Portions of this stand had been thinned in 1987 and the stand was sprayed for Gypsy Moth Control in 1989. No evidence of recent fire activity was observed during the recon.

Rare, Threatened and Endangered Species: The Forest Manager knows of no rare, threatened or endangered species presently on the site, or that would be impacted by the management prescription.

Habitats and Species of Management Concern: The stand is closely associated to several conifer plantations which had prompted the designation of the surrounding HCVF area as an ESA. The conifer plantations are known to have supported critical habitat for a State listed RT&E species. The planned habitat improvement work will take place in this hardwood stand within the ESA; with a management goal of restoring suitable habitat conditions for the RT&E species that has been recorded as using this area. The Forest Manager knows of no other habitats

or species of management concern on the site that would be impacted by the management prescription.

Water Resources: This ridge top stand drains eastward toward a couple of unnamed tributaries of Bradshaw Run, a small headwater tributary of the greater Potomac River Watershed. The proposed silvicultural treatments will be outside of all HCVF stream buffer areas. No heavy equipment will be permitted within the protective riparian buffers of the streams and any associated wetlands per the requirements set forth in the Potomac-Garrett State Forest Sustainable Forest Management Plan.

Soil Resources: Underlying soils include: 'Dekalb and Gilpin very stony loams' and 'Cookport and Ernest very stony silt loams'. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils, with moderate equipment limits because water table is close to the soil surface in winter and early in spring. Degree of slope ranges from 0-25% throughout the site. The site has very good productivity for woodland management, with a site index of 75-85 for upland oaks.

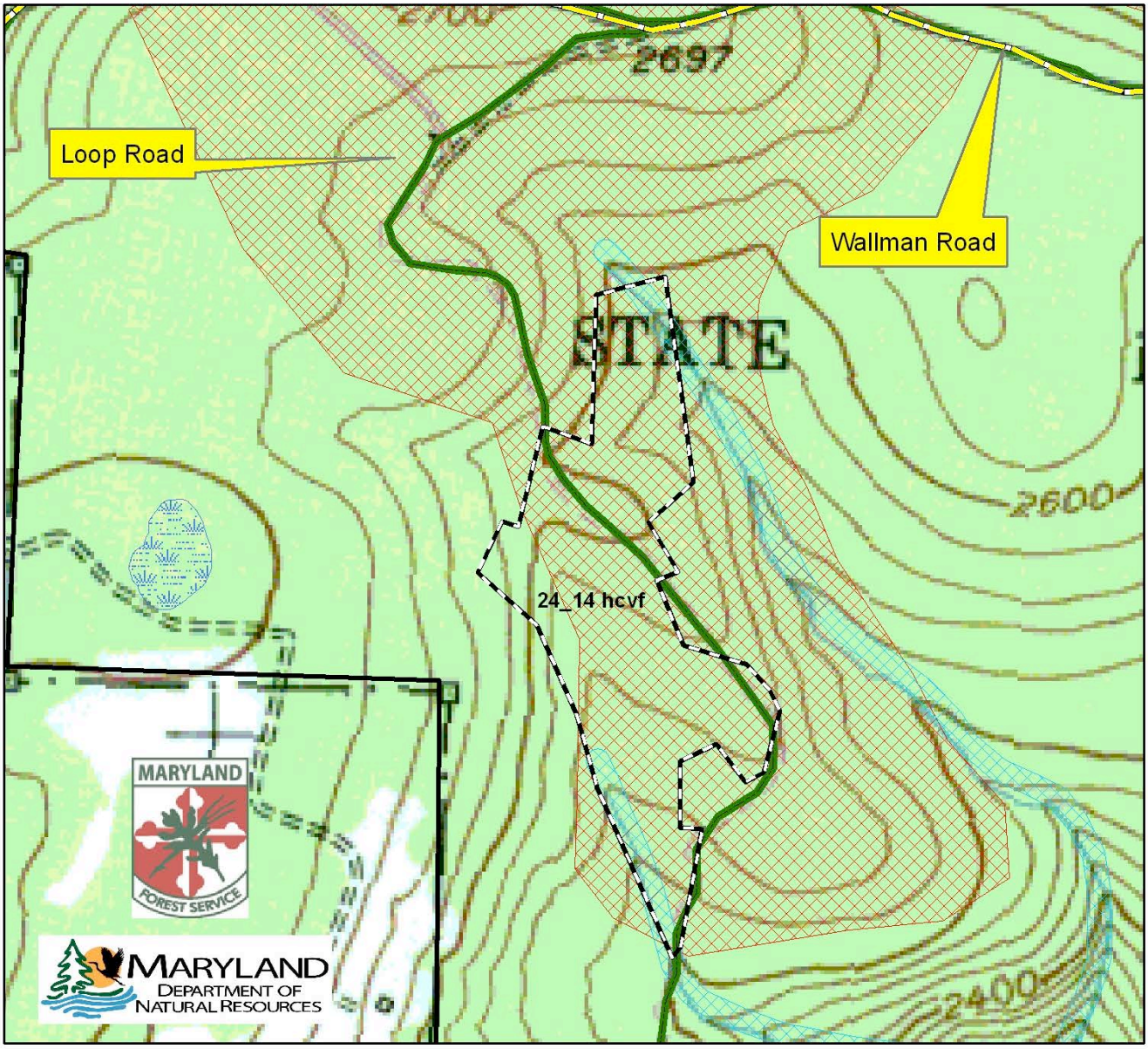
Management and Silvicultural Recommendations

This hardwood stand will be managed using a combination of even-aged and uneven-aged silvicultural treatments. The goal for the site is to restore important habitat conditions required by the RT&E species know to utilize this site. Desired conditions include a relatively closed upper canopy layer and an open, un-stratified mid canopy layer (between the shrub layer and main canopy). To that end, management objectives will include thinning the stand "from below" to reduce stocking to approximately 65% relative density and a basal area of 90-100 sq. ft. of BA/acre. The thinning will concentrate on removals taken primarily from the suppressed and overtopped crown positions; largely pole and smaller sawtimber trees. Where appropriate, dominant and co-dominant trees will be removed through single tree and group selection, to release suitable white pine seedlings and saplings from competition. This will facilitate expansion of the important mixed hardwood/conifer cover type. Approximately 2,000 – 2,500 Bd. Ft. / acre will be removed in this marginally, commercially viable operation.

As the desired conditions for the ESA include an open mid canopy, this layer made up primarily of the 2"- 4" unmerchantable material identified as tall woody interference, will be cut down by logging contractor as he completes the harvest. With the significant deer pressure in the area, it is expected that deer browsing on the resultant sprouting stumps, should keep the understory from re occupying the mid canopy for quite some time. An alternative to the understory cutting, would be to treat the undesirable mid canopy layer with an appropriate herbicide applied directly to the trees using a hack and squirt method or basal bark spray technique.

It is proposed that this project be moved forward to be carried out in FY-16. This, in order that it may be contracted out along with approved similar work set forth in the FY-16 AWP; there-by restricting disturbance to the ESA to one contract term.

Compartment 25 Stand 14 HCVF FY-17



Approx. Acres.....33
Harvest Acres.....22
Forest Type.....Mixed Oak
Basal Area.....133
BA AGS.....106
Stocking.....87
Growth Rate.....2%
Site Index.....62 for RO
Composition.....Red Maple 36%
. Red Oak 23%
. Sugar Maple 11%

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

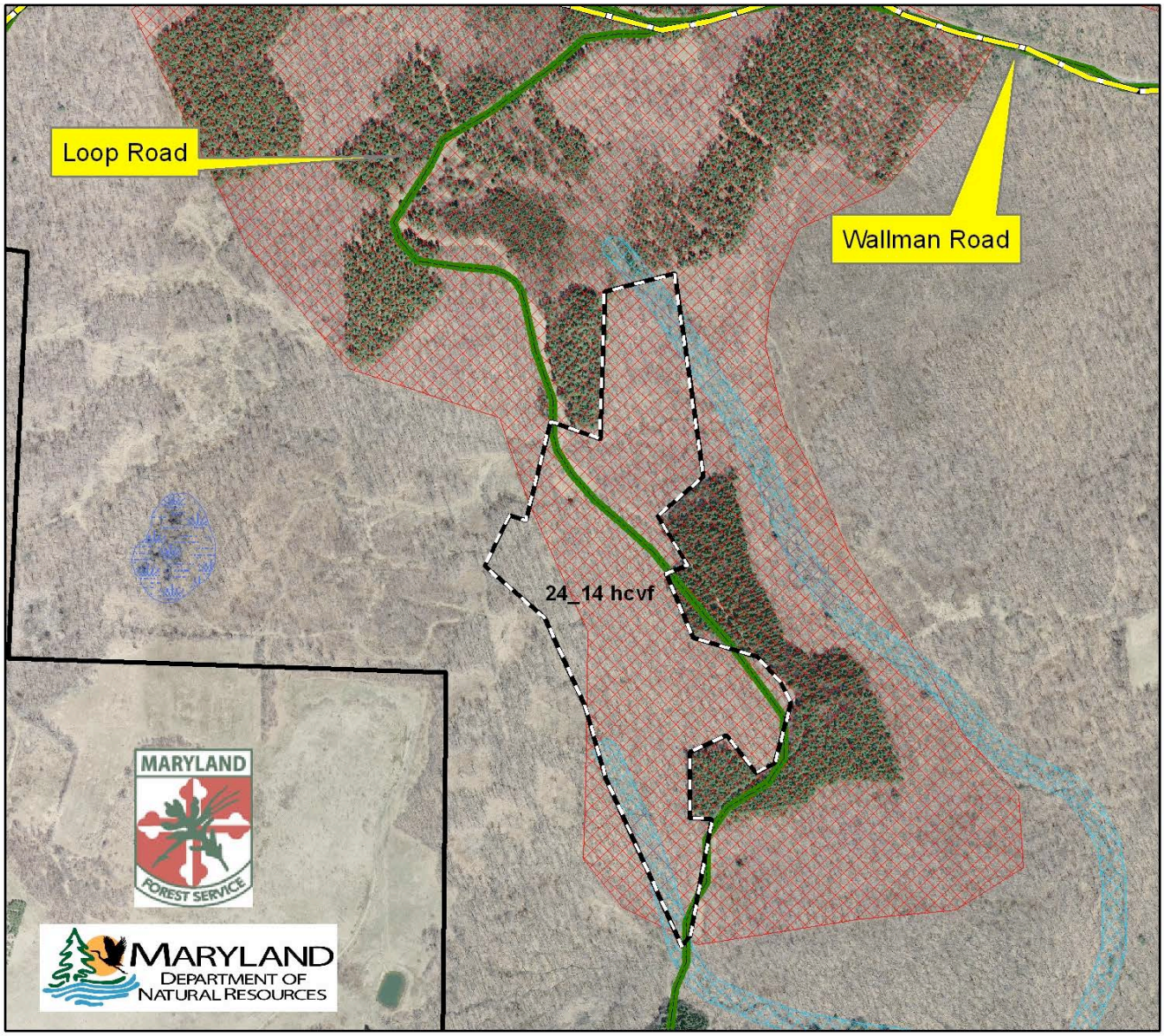
N

0 220 440 880 1,320 1,760 Feet

79°17'8.153"W 39°20'9.49"N

COMPARTMENT 40 Stand 1 **FY-17**

Compartment 25 Stand 14 HCVF FY-17



Approx. Acres.....33
Harvest Acres.....22
Forest Type.....Mixed Oak
Basal Area.....133
BA AGS.....106
Stocking.....87
Growth Rate.....2%
Site Index.....62 for RO
Composition.....Red Maple 36%
. Red Oak 23%
. Sugar Maple 11%

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

Wetlands w/50' Buffer

N

0 220 440 880 1,320 1,760
Feet

79°17'8.153"W 39°20'9.49"N

COMPARTMENT 40 Stand 1
(HCVF Thinning to Retain Habitat)

Description/Resource Impact Assessment

Location: This area is located on the north side of Maple Glade Road, approximately 0.4 miles west of the intersection of the Cranesville Road and the Maple Glade Road, within Compartment #40 of the Garrett State Forest. This area is considered a High Conservation Value Forest as it falls within the Toliver Run ESA (Ecologically Significant Area). The proposed management unit consists of a 34 acre pine plantation, though silvicultural work is being considered for the 20 acres of the stand that fall to the west of the Toliver Run headwaters and bog communities.

Forest Community Type and Condition: This 20 acre stand contains an immature pine plantation that is approximately 60 years old with an average merchantable diameter of 13 inches. The plantation is comprised primarily of White Pine (89%), with a minor Red Pine component (8%). This stand is highly overstocked at 109% relative density and contains 181 sq. ft. of BA/acre. The stand is well overdue for a thinning as evidenced by the small live crown ratio of the trees. Typical of unmanaged conifer plantation, there is very little understory development, and thus, very little desirable regeneration present in the understory, though Mountain Laurel does provide some very dense cover on approx. 23% of the stand.

Interfering Elements: This area is recognized as an important deer wintering area. Deer browse pressure in this area is estimated to be moderate to high and must be addressed when considering any regeneration efforts on this site. Interfering understory plant competition is slight to moderate with respect to future regeneration efforts; low woody interference in the form of Mountain Laurel is found throughout 23% of this stand, indicating the drier more upland conditions beyond the stream buffers. Problematic levels of fern and grass are found on 19% of site. Non-native invasive species (NNIS) were not observed in the stand.

Historic Conditions: State Forest records show no history of harvest since the states acquisition and planting. No evidence of fire or insect pest activity was observed during the reconnaissance. There is considerable evidence and damage resulting from the October 2012 heavy wet snow storm.

Rare, Threatened and Endangered Species: This stand is considered High Conservation Value Forest (HCVF) as it is situated within the Toliver Run ESA; an area set up to provide conservation/protection for the remnant bog communities located in the eastern half of the plantation area. The area offers critical habitat for a number of plant and animal species associated with the bog communities including; Mountain Earth Snakes, Coal Skinks, various Threatened and Endangered plants. The proposed management for this stand would be carried out in the interest of conserving the critical habitats associated with this ESA, as well as maintaining the health and vigor of the limited conifer component of the Garrett State Forest.

Habitats and Species of Management Concern:
This stand is considered High Conservation Value Forest (HCVF) as it is situated within the Toliver Run ESA; an area set up to provide conservation/protection for the remnant bog communities located in the eastern half of the plantation area. The area offers critical habitat for a number of plant and animal species associated with the bog communities including; Mountain Earth Snakes, Coal Skinks, various Threatened and Endangered plants. The proposed management for this stand would be carried out in the interest of conserving the critical habitats associated with this ESA, as well as maintaining the health and vigor of the limited conifer component of the Garrett State Forest.

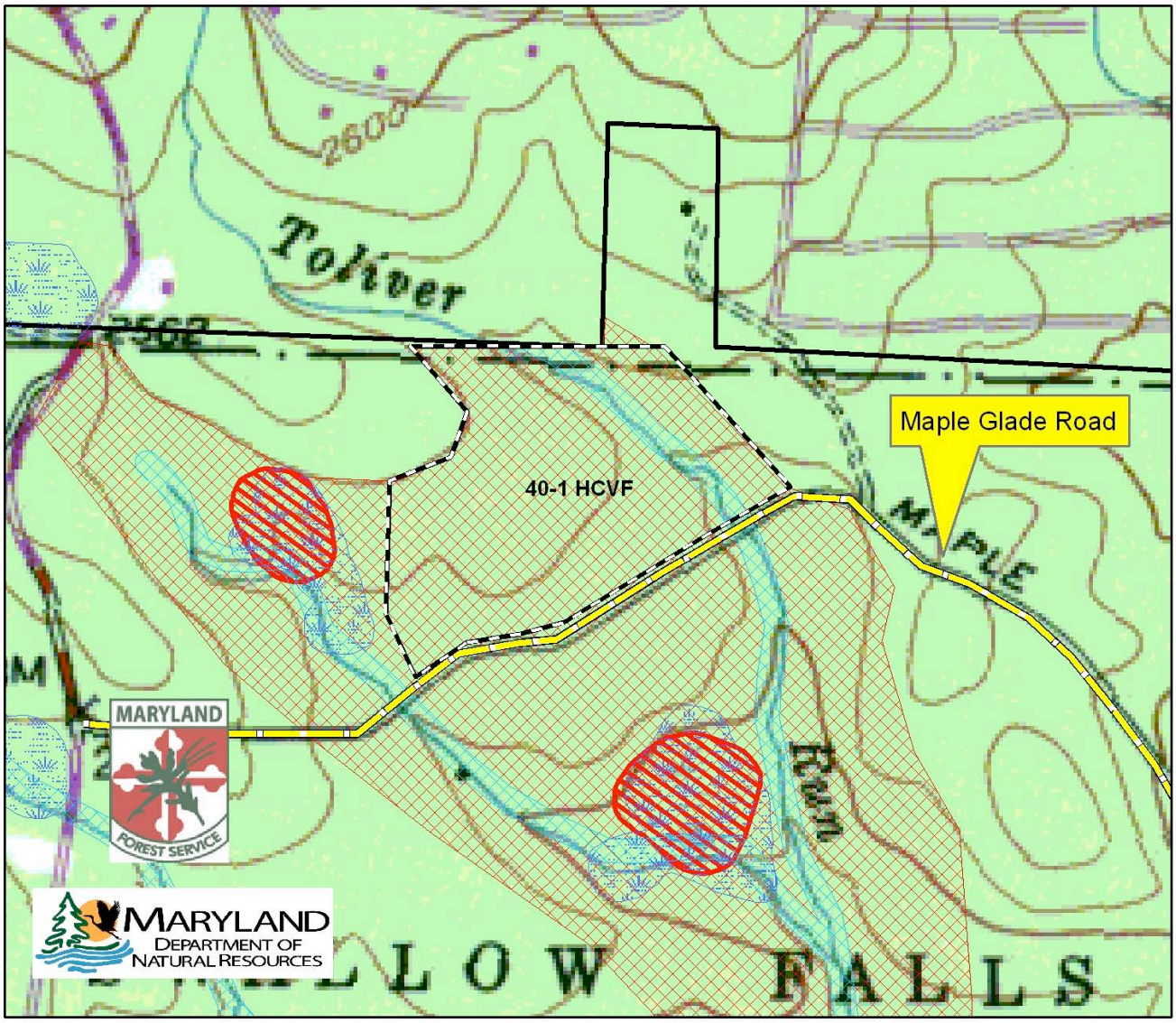
Water Resources: This relatively flat stand drains to headwater streams of the Toliver Run, within the Youghiogheny River Watershed. A number of small sphagnum bogs are present in the eastern half of the plantation, outside of the initially proposed management area. Initial plans are for all silvicultural operations to occur outside of the HCVF stream buffer areas, unless there is opportunity to improve critical habitats within the buffers via silvicultural treatments.

Soil Resources: Underlying soils are mapped as 'Dekalb and Gilpin very stony loams'. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils. Degree of slope ranges from 0-25% throughout the site. Equipment limits range from slight to moderate. Hazard of erosion is slight to moderate. The site has good productivity for woodland management, with a site index of 65-75 for upland oaks.

Management and Silvicultural Recommendations

The planned silvicultural treatment for this site is to thin this stand. This thinning will target removal of approximately 50-60 sq.ft.of BA/acre. This harvest will yield approximately 6,000 Bd. Ft./acre. This thinning will reduce competition among the remaining trees in the stand, thereby increasing the health and vigor of the residual stand, allowing for long term retention of this limited conifer component in the forest. The tops and lops left behind from the harvest, would offer coarse woody debris on the otherwise clear forest floor, providing habitat elements that would be beneficial to insects, salamanders, snakes and skinks found in this ESA. Forest Manger will contact Natural Heritage Biologist to coordinate marking this stand.

Compartment 40 Stand 1 HCVF FY-17



Approx. Acres.....34
Harvest Acres.....20
Forest Type.....Plantation
Basal Area.....181
BA AGS..... ...79
Stocking.....109
Growth Rate.....3%
Site Index.....80 for WP
Composition.....White Pine 89%
. Red Pine 8%

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

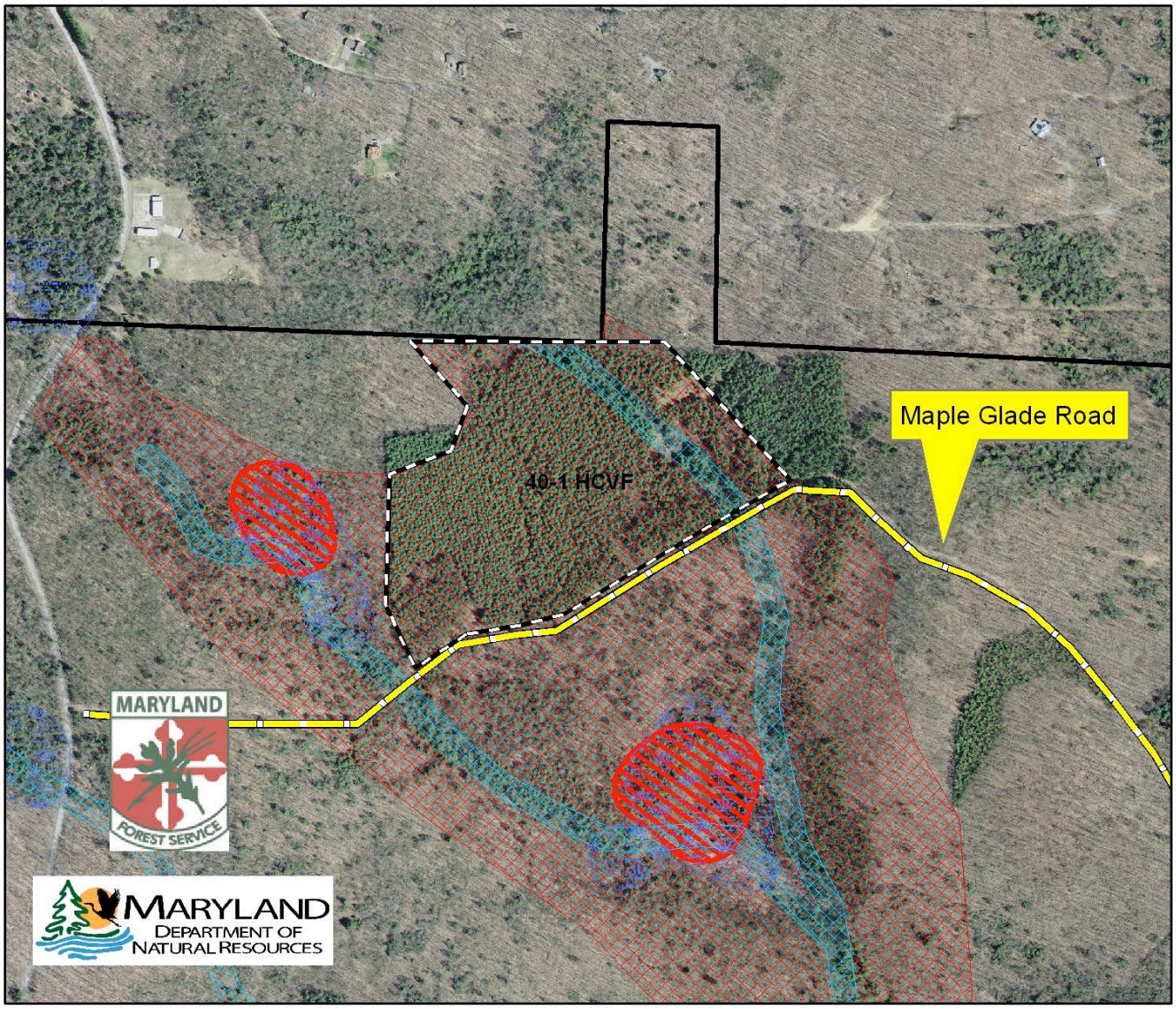
0 220 440 880 1,320 1,760 Feet

Wetlands w/50' Buffer

79°26'47.65"W 39°30'26.076"N

N

Compartment 40 Stand 1 HCVF FY-17



Approx. Acres.....34
Harvest Acres.....20
Forest Type.....Plantation
Basal Area.....181
BA AGS..... ...79
Stocking.....109
Growth Rate.....3%
Site Index.....80 for WP
Composition.....White Pine 89%
. Red Pine 8%

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

0 220 440 880 1,320 1,760 Feet

Wetlands w/50' Buffer

79°26'47.65"W 39°30'26.076"N

X. Silvicultural Proposals

COMPARTMENT 7 Stand 5 **FY-17**

Description/Resource Impact Assessment

Location: This stand is situated on the northwest side of z nn nnnn nn . `Backbone Mountain. It fronts the gated service road located on the southwest side of Swanton Hill Road within Compartment #7 Stand 5 of the Potomac State Forest.

Forest Community Type and Condition: This 19-acre site contains a 90 year old mixed oak hardwood stand. The over story is made up primarily of Black Cherry (38%), Red Oak (38%), Red Maple (10%), and Chestnut Oak (10%). This stand is fully stocked at only 60% relative density and 107 sq.ft. BA/acre. There is insufficient desirable regeneration present with only 23% of the area containing adequate competitive regeneration of any type.

Interfering Elements: Deer browse pressure in this area is estimated to be moderate and must be addressed when considering regeneration efforts on this site. Interfering plant competition poses a significant impediment to future regeneration with 75+% of the site containing some sort of interfering vegetation. Problematic levels of fern and 'grass' are found on 35% of the site. Tall woody and low woody interference occupy approx. 55% and 25% of the site respectively; primarily in the form of witch hazel. Non-native invasive species, (NNIS) were not observed in the stand during the inventory. No significant insect pest or diseases were observed.

Historic Conditions: The stand was sprayed for Gypsy Moth Control in 1992, reflecting a significant investment in protecting this valuable stand. There is no record of harvest in the stand since the State's acquisition. Fire history is evident as many of the larger trees have swollen bases and 'catface' fire scars. The Backbone Mountain area has a long history of frequent railroad ignition wildfire, and this area is the site of the 1966 fire that burned over 3,600 acres.

Rare, Threatened and Endangered Species: The Forest Manager knows of no rare, threatened or endangered species on the site, or that would be impacted by the silvicultural prescription.

Habitats and Species of Management Concern: The Forest Manager knows of no Habitats or Species of Management Concern on the site, or that would be impacted by the silvicultural prescription.

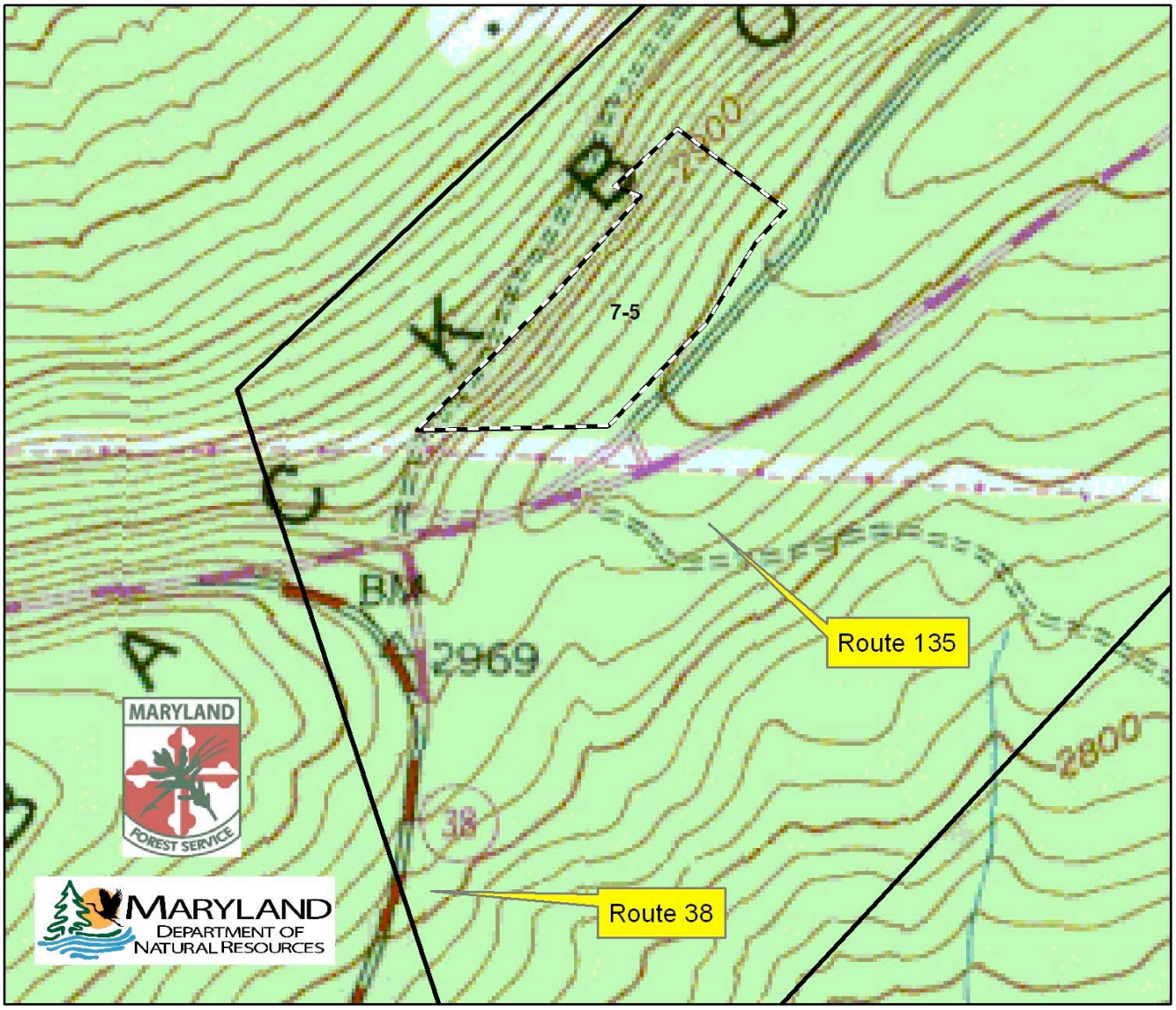
Water Resources: This northwest facing, ridge top stand drains toward Crabtree Creek, within the Potomac River Watershed. The proposed silvicultural treatments will be outside of all HCVF stream buffer areas. No heavy equipment will be permitted within the protective riparian buffers of any streams or associated wetlands per the requirements set forth in the Potomac-Garrett State Forest Sustainable Forest Management Plan.

Soil Resources: Most of the underlying soils are mapped as "Stoney land, steep": These soils are generally moderately deep and well drained with inclusions of some poorly drained soils. Degree of slope ranges from 0-30% throughout the site. Equipment limits range slight to moderate as slopes approach 25%. Hazard of erosion is slight to moderate on the steeper slopes. The site has good productivity for woodland management, with a site index of 60-70 for upland oaks.

Management and Silvicultural Recommendations

Stand stocking is suitable for seedling establishment, however, interfering vegetation in the understory is preventing this. As such, the planned silvicultural treatment for this site is to create understory conditions suitable for the establishment of desirable seedling growth. Interfering vegetation will be controlled using appropriate herbicide applications. The problematic ground cover of ferns, grasses, low growing witch hazel and striped maple will be treated using low volume/low concentration foliar applications. The larger sapling sized tall woody interference comprised mainly of the witch hazel, will be treated with a stem directed herbicide treatment (cut surface or basal bark application). These treatments will open the forest floor to increased sunlight necessary for desired seedling establishment. Following these treatments, the stand will be monitored for regeneration over the next 5-10 years. As seedlings become established, additional cultural work will be prescribed as necessary to bring this new seedling crop along.

Compartment 7 Stand 5 FY-17



Approx. Acres.....19
Treatable Acres.....19
Forest Type.....Mixed Oak
Basal Area.....107
BA AGS.....81
Stocking.....60%
Growth Rate.....1.7%
Site Index.....50 for NRO
Composition.....Black Cherry 38%
. Red Oak 37%
. Red Maple 10%

0 220 440 880 1,320 1,760
Feet

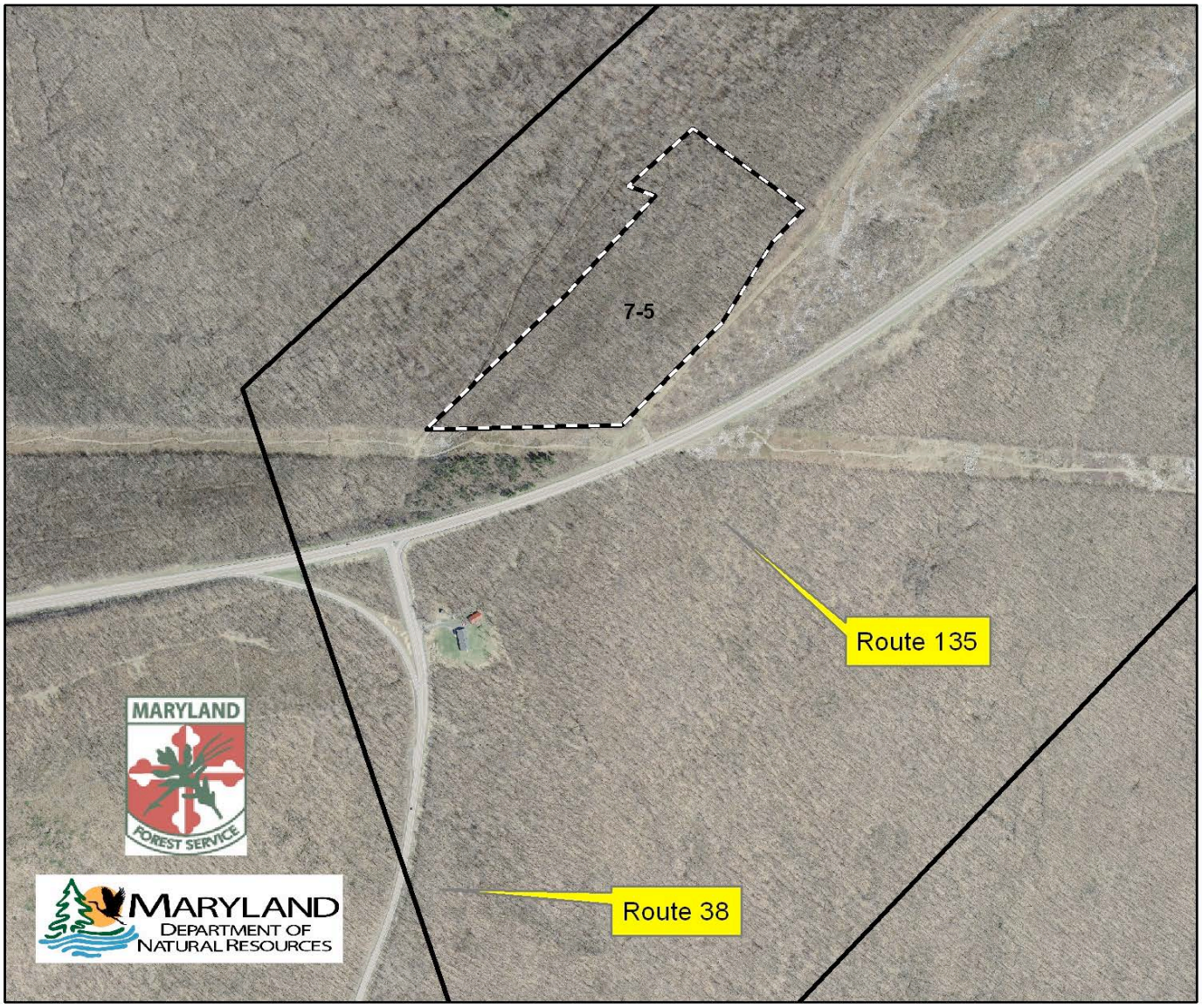
HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

N

79°13'27.952"W 39°26'49.383"N

Compartment 7 Stand 5 FY-17



Approx. Acres	19
Treatable Acres	19
Forest Type	Mixed Oak
Basal Area	107
BA AGS	81
Stocking	60%
Growth Rate	1.7%
Site Index	50 for NRO
Composition	Black Cherry 38%
.	Red Oak 37%
.	Red Maple 10%

0 220 440 880 1,320 1,760 Feet

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

N

79°13'27.952"W 39°26'49.383"N

COMPARTMENT 21a Stands 1&2 **FY-17**

Description/Resource Impact Assessment

Location: This area can be accessed from the parking lot at the end of the State Forests Laurel Run Road, or from the top of the slope by way of the Schell Road, which serves as a shared private / administrative access to this tract. The stands are located along the south and east facing slopes above the Laurel Run Road in Compartment #21a, Stands 1&2 of the Potomac State Forest.

Forest Community Type and Condition: This 53-acre site contains a mature, 100 year old transitioning hardwoods stand. The over story is made up primarily of Red Oak (33%), Sugar Maple (19%), Hickory (13%), and White Oak (10%). This stand is over stocked at 90% relative density and 138 sq.ft. BA/acre. Typical of such heavily stocked, mature, stands there is very little established desirable regeneration present with less than 3% of the area containing "desirable" regeneration.

Interfering Elements: Deer browse pressure in this area is estimated to be high and must be addressed when considering regeneration efforts on this site. Interfering understory plant competition is surprisingly low and poses little to no impediment to future regeneration with only 1% of the site harboring some form of undesirable plant competition. Tall woody interference occurs on only 6% of the site. Non-native invasive species (NNIS) were observed on 28% of the sample points, and included primarily Garlic mustard. No significant insect pest or diseases were observed.

Historic Conditions: State Forest records show no history of harvest since the State's acquisition. The old Schell Road runs along the base of the south facing Stand 1, while the Crooked Run Fire Trail runs along the base of the east facing Stand 2. This area sits upslope of the long gone coal town of Schell which was located along the river at this location. The stand was sprayed for Gypsy Moth Control in 1989 and 1990. No evidence of recent fire activity was observed during the recon.

Rare, Threatened and Endangered Species: At this time, the Forest Manager knows of no rare, threatened or endangered species on the site, or that would be impacted by the silvicultural prescription. Pipe vine is present in the adjacent ESA, and could be found within the harvest area. If found during timber marking, every effort will be made to include the plant within a 'legacy island' of retention trees.

Habitats and Species of Management Concern: These stands sit upslope of the Crooked Run ESA, an area of High Conservation Value Forest (HCVF) that is known to contain critical habitats for various rare, threatened or endangered plant and animal species. At this time, the Forest Manager knows of no critical habitats or species of management concern on the site, or that would be impacted by the silvicultural prescription.

Water Resources: This east facing Stand 1 drains directly toward the North Branch of the Potomac River, while the south facing Stand 2 drains toward Laurel Run. A developed spring head exists above the Schell road, near the northwest corner of the stand. The proposed silvicultural treatments will be outside of all HCVF stream buffer areas. No heavy equipment will be permitted within the protective riparian buffers of the streams and any associated wetlands per the requirements set forth in the Potomac-Garrett State Forest Sustainable Forest Management Plan.

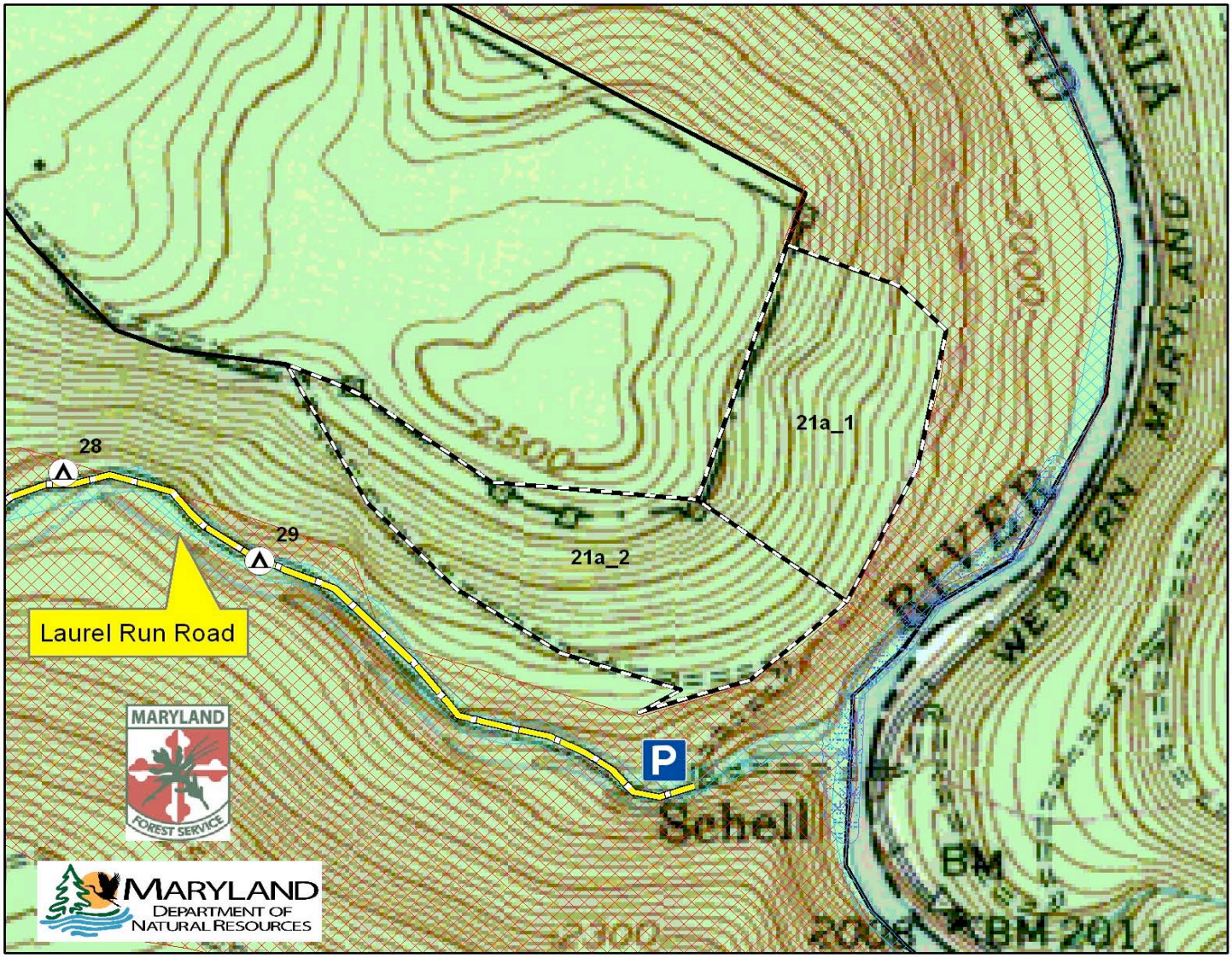
Soil Resources: Underlying soils are vaguely mapped as 'Stony land, steep'. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils. Degree of slope ranges from 0-35% throughout the site. Equipment limits range from moderate to severe as slopes approach 35%. Hazard of erosion is slight to moderate on the steeper slopes. The site has very good productivity for woodland management, with a site index of 65-75 for upland oaks.

Management and Silvicultural Recommendations

The planned silvicultural treatment for this site is to regenerate this mature stand using a 2-stage shelter-wood system. The first stage of this regeneration system will be an "establishment / seed cut" that will involve thinning the stand to enhance conditions for seed production and seedling establishment; emphasis will be placed on the retention of oaks for acorn production. This practice will reduce stocking to approximately 60-65% relative density and a basal area of 90 sq. ft. of BA/acre. The thinning will largely be a 'thinning from below' with removals taken primarily from the suppressed and intermediate crown positions, with some dominant and co-dominant trees removed to allow sufficient room for the best trees on site to grow as seed producers. Storm damaged saplings will be cut to encourage stump sprouting. Approximately 2,500-3,000 Bd. Ft. / acre will be removed in this a commercially viable operation. In order to retain important wildlife habitat elements and to preserve a 'legacy' component of the original stand, retention areas will be identified during this thinning operation to be carried through to future final harvest. This 'green tree' retention will account for 5% of the mapped / managed area and will include buffers to unmapped aquatic resources, single trees containing important habitat elements, and islands comprised of 8-12 dominant or co-dominant trees and the lower canopy trees and shrubs beneath them. Any pipe vine found during marking will be attempted to be included in these retention area. To minimize possible impacts, timber will be hauled upslope and out through the shared access to Schell Road.

Once the stand is fully stocked with desirable seedlings, (in approx. 5-10 years) the 'second stage' of this system may be carried out as an overstory removal. This final harvest will release the now competitive seedlings from overhead competition to fully regenerate the site.

Compartment 21a Stands 1 & 2 FY-17



Approx. Acres.....53
Harvest Acres.....51
Forest Type.....Transition
Basal Area.....138
BA AGS.....116
Stocking.....90
Growth Rate.....2%
Site Index.....65 for NRO
Composition.....Red Oak 33%
. Sugar Maple 19%
. Hickory 13%

HCVF Components

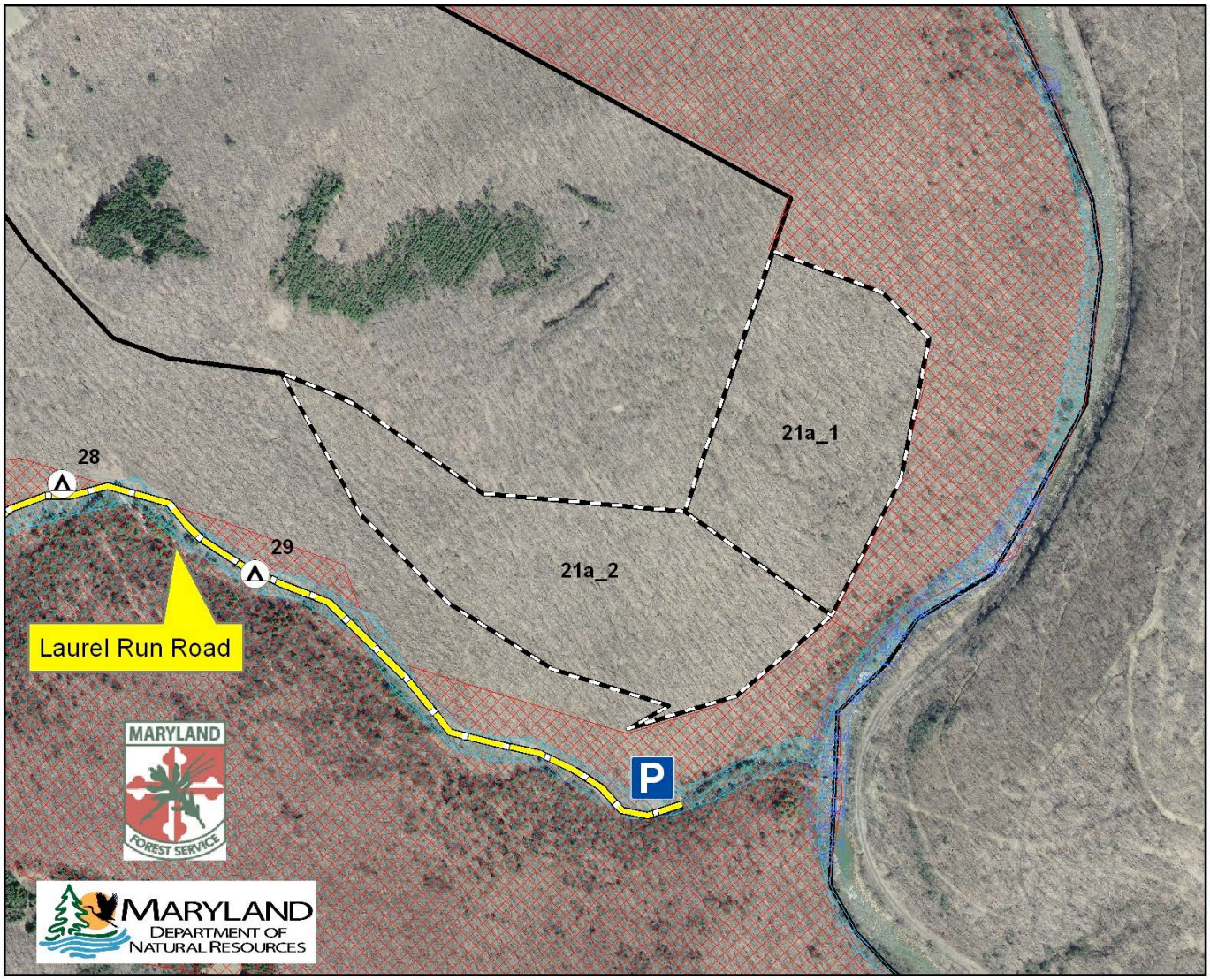
- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

79°15'33.382"W 39°20'41.828"N

Compartment 21a Stands 1 & 2 FY-17



Approx. Acres.....53
Harvest Acres.....51
Forest Type.....Transition
Basal Area.....138
BA AGS.....116
Stocking.....90
Growth Rate.....2%
Site Index.....65 for NRO
Composition.....Red Oak 33%
. Sugar Maple 19%
. Hickory 13%

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

N

79°15'33.382"W 39°20'41.828"N

COMPARTMENT 32 Stand 5 **FY-17**
Description/Resource Impact Assessment

Location: This stand is situated on the east side of the State Forest's Snaggy Mountain Road, beyond the 'trail shelter campsite #8 within Compartment #32 Stand 5 of the Garrett State Forest.

Forest Community Type and Condition: This 28-acre site contains a 98 year old hardwood stand, is transitioning from a Mixed Oak stand to Allegheny Hardwoods stand. The over story is made up primarily of White Oak (41%), Red Maple (34%), Black Cherry (8%) and Red Oak (8%). This stand is over stocked at 93% relative density and 127 sq.ft. BA/acre. There is insufficient desirable regeneration present with only 32% of the area containing adequate competitive regeneration.

Interfering Elements: Deer browse pressure in this area is estimated to be moderate and must be addressed when considering regeneration efforts on this site. Interfering plant competition poses a significant impediment to future regeneration with 50% of the site containing problematic levels of fern and 'grass', and low woody interference primarily in the form of Dewberry. Tall woody interference is found over 32% of the stand and needs to be factored into future management prescriptions. Non-native invasive species, (NNIS) were not observed during the inventory. No significant insect pest or diseases were observed.

Historic Conditions: The stand was sprayed for Gypsy Moth Control in 1989, 1990 and 1991 reflecting a significant investment in protecting this valuable stand. There is no record of harvest in the stand since the states acquisition. No evidence of recent fire activity was observed during the recon.

Rare, Threatened and Endangered Species: The Forest Manager knows of no rare, threatened or endangered species on the site, or that would be impacted by the silvicultural prescription.

Habitats and Species of Management Concern: The Forest Manager knows of no habitats or species of management concern on the site that would be impacted by the silvicultural prescription. High Conservation Value Forest (HCFV) areas are located in the stream drains to both the north and south of the stand. Both contain wetlands of special state concern, and protecting critical habitats for various threatened or endangered species, deer wintering areas, and habitat for Alder Flycatchers.

Water Resources: This ridge top stand drains toward un-named tributaries of both Murley Run and Herrington Creek, within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF stream buffer areas. No heavy equipment will be permitted within the protective riparian buffers of any streams or associated wetlands per the requirements set forth in the Potomac-Garrett State Forest Sustainable Forest Management Plan.

Soil Resources: Underlying soils include: 'Dekalb and Gilpin very stony loams' and some 'Cookport and Ernest very stoney silt loams'. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils. Degree of slope ranges from 0-25%

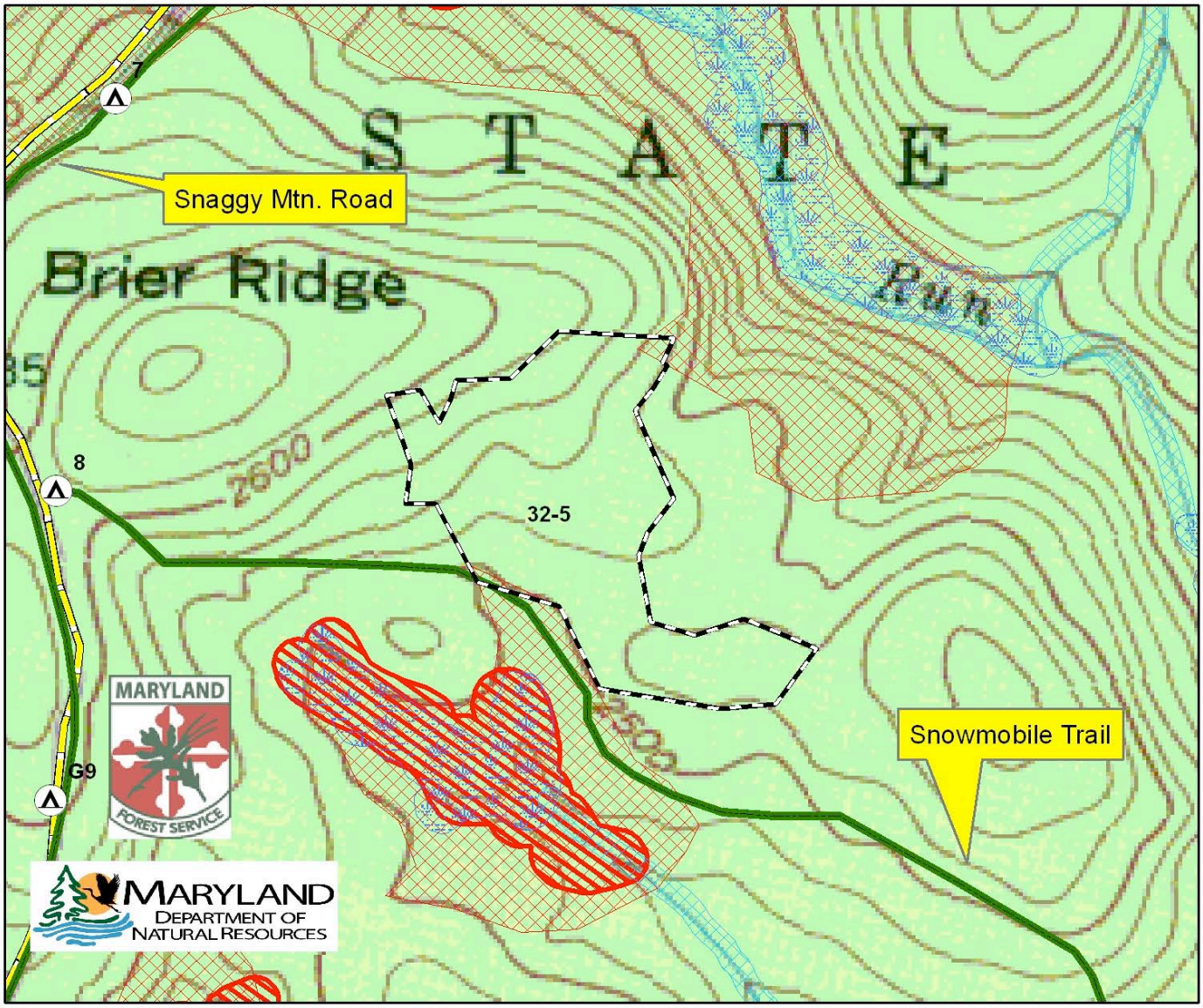
throughout the site. Equipment limits range slight to moderate as slopes approach 25%. Hazard of erosion is slight to moderate on the steeper slopes. The site has very good productivity for woodland management, with a site index of 65-75 for upland oaks.

Management and Silvicultural Recommendations

The planned silvicultural treatment for this site is to regenerate using a 3-stage shelter-wood system in order to retain a solid oak component in the future. The first stage of this regeneration system will be an "establishment / seed cut" that will involve both thinning the stand and treating the interfering understory plants that are limiting seedling development in order to provide suitable conditions for seed production and seedling establishment. Emphasis will be placed on the retention of oaks for acorn production. The thinning for this site will be carried out as a non-commercial practice 'thinning from below' to remove 30 sq.ft. BA/ac. from the poletimber and small sawtimber size classes; retaining approximately 100 sq.ft.BA/acre. In addition to these poles and undesirable small sawtimber trees, all of the interfering woody vegetation, 0.5-4" will be removed as well. This thinning will be carried out by using a low volume, direct application of an appropriate herbicide to the target trees using either cut surface, 'hack and squirt', or basal bark application techniques. Additionally, the interfering fern, grass/sedge, and dewberry layer will be treated with appropriate herbicides to remove this interfering, competitive vegetation. This will open the forest floor to increased sunlight necessary for desired seedling establishment.

With the present lack of desirable regeneration, significant amount of interfering vegetating, and the low volume necessary to be removed to meet our objective, this work will be carried out as a non-commercial practice. The stand will be monitored for regeneration over the next 5-10 years. As seedlings become established, additional cultural work will be prescribed as necessary to bring this new seedling crop along.

Compartment 32 Stand 5 FY-17



Approx. Acres	28
Treatable Acres	26
Forest Type	Mixed Oak
Basal Area	127
BA AGS	104
Stocking	93%
Growth Rate	1.5%
Site Index	63 for WO
Composition	White Oak 41%
.	Red Maple 33%
.	Black Cherry 10%

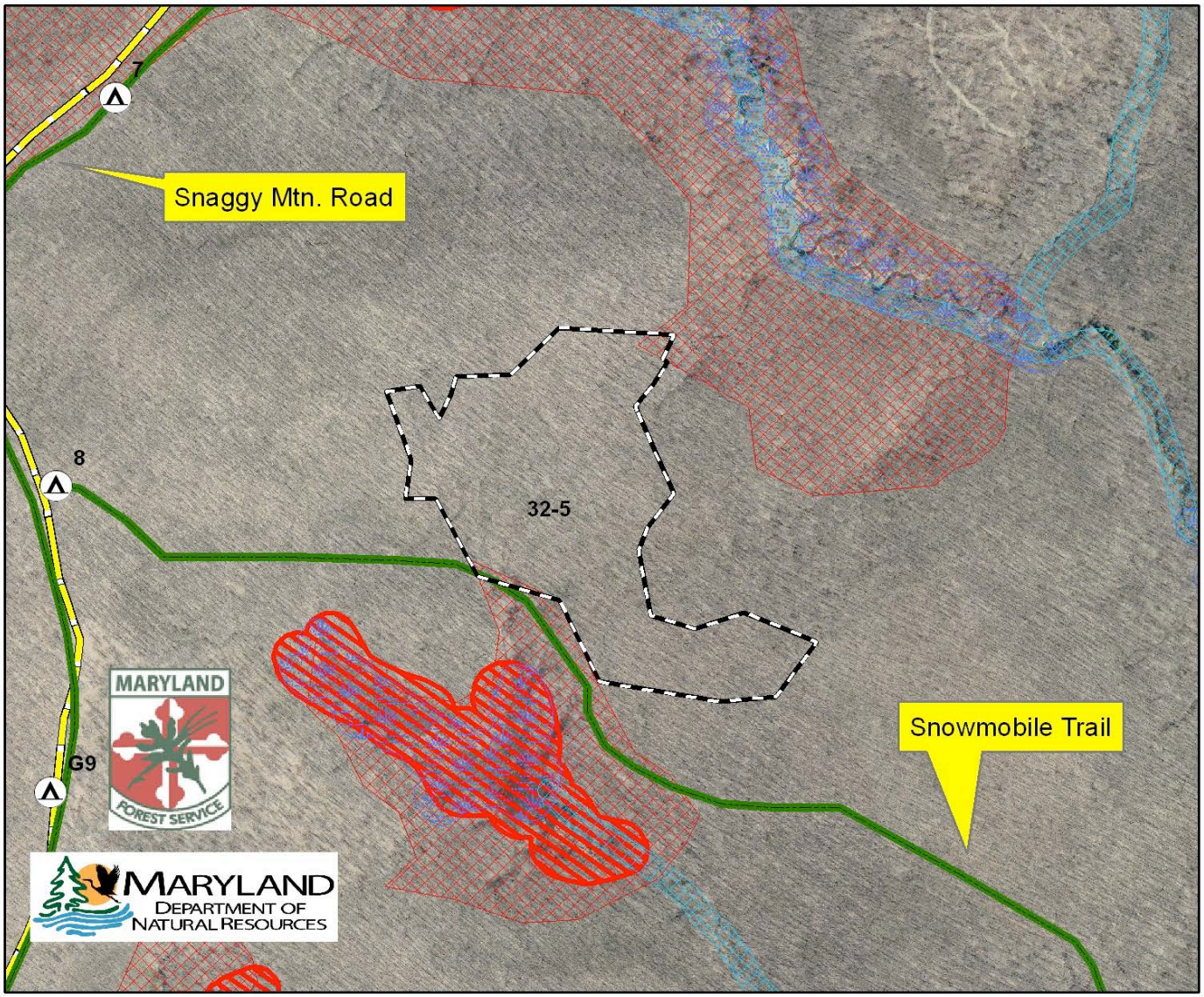
HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

79°27'30.988"W 39°28'12.663"N

Compartment 32 Stand 5 FY-17



Approx. Acres.....28
Treatable Acres.....26
Forest Type.....Mixed Oak
Basal Area.....127
BA AGS.....104
Stocking.....93%
Growth Rate.....1.5%
Site Index.....63 for WO
Composition.....White Oak 41%
. Red Maple 33%
. Black Cherry 10%

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

79°27'30.988"W 39°28'12.663"N

COMPARTMENT 32 Stand 6 **FY-17**

Description/Resource Impact Assessment

Location: This stand is situated on the east side of the State Forest's Snaggy Mountain Road, beyond the 'trail shelter campsite #8 within Compartment #32 Stand 6 of the Garrett State Forest.

Forest Community Type and Condition: This 18-acre site contains a 95 year old hardwood stand, is transitioning from a Mixed Oak stand to Allegheny Hardwoods stand. The over story is made up primarily of Black Cherry (37%), White Oak (32%), Red Maple (18%), and Scarlet Oak (10%). This stand is over stocked at 93% relative density and 142 sq.ft. BA/acre. There is insufficient desirable regeneration present with only 8% of the area containing adequate competitive regeneration.

Interfering Elements: Deer browse pressure in this area is estimated to be moderate and must be addressed when considering regeneration efforts on this site. Interfering plant competition poses a significant impediment to future regeneration with 80% of the site containing problematic levels of fern and 'grass', and low woody interference primarily in the form of Dewberry. Tall woody interference is found over 29% of the stand and needs to be factored into future management prescriptions. Non-native invasive species, (NNIS) were not observed during the inventory. No significant insect pest or diseases were observed.

Historic Conditions: The stand was sprayed for Gypsy Moth Control in 1989, 1990 and 1991 reflecting a significant investment in protecting this valuable stand. There is no record of harvest in the stand since the State's acquisition. No evidence of recent fire activity was observed during the recon.

Rare, Threatened and Endangered Species: The Forest Manager knows of no rare, threatened or endangered species on the site, or that would be impacted by the silvicultural prescription.

Habitats and Species of Management Concern: The Forest Manager knows of no habitats or species of management concern on the site that would be impacted by the silvicultural prescription. High Conservation Value Forest (HCFV) areas are located in the stream drains to both the north and south of the stand. The HCVF is so designated as both containing wetlands of special State concern protecting critical habitats for various threatened or endangered species, deer wintering areas, and habitat for Alder Flycatchers.

Water Resources: This ridge top stand drains toward un-named tributaries of both Murley Run and Herrington Creek, within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF stream buffer areas. No heavy equipment will be permitted within the protective riparian buffers of any streams or associated wetlands per the requirements set forth in the Potomac-Garrett State Forest Sustainable Forest Management Plan.

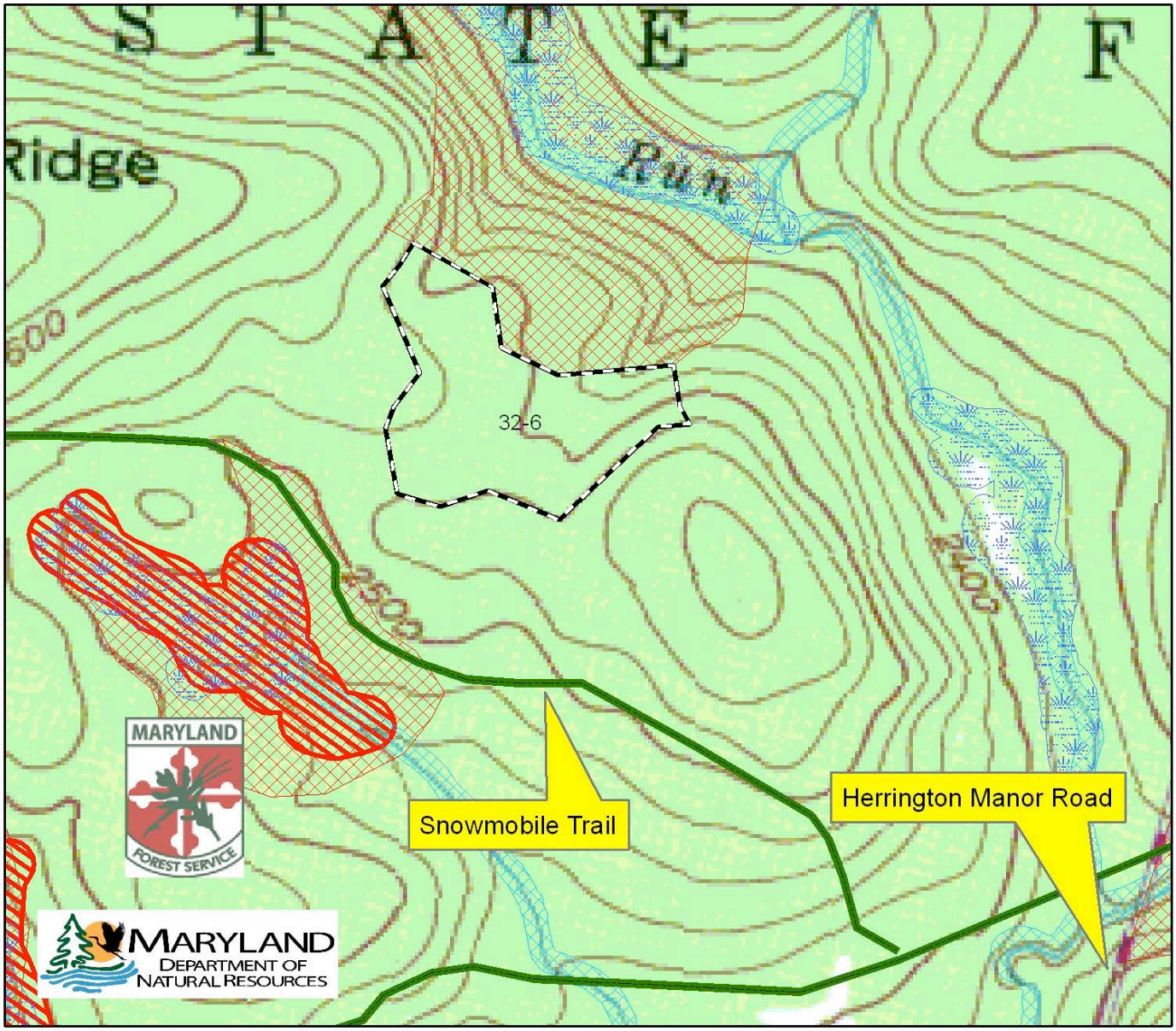
Soil Resources: Underlying soils include: 'Dekalb and Gilpin very stony loams' and some 'Cookport and Ernest very stoney silt loams'. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils. Degree of slope ranges from 0-25% throughout the site. Equipment limits range slight to moderate as slopes approach 25%. Hazard of erosion is slight to moderate on the steeper slopes. The site has very good productivity for woodland management, with a site index of 65-75 for upland oaks.

Management and Silvicultural Recommendations

The planned silvicultural treatment for this site is to regenerate using a 3-stage shelter-wood system in order to retain a solid oak component in the future. The first stage of this regeneration system, will be an "establishment / seed cut" that will involve both thinning the stand and treating the interfering understory plants that are limiting seedling development in order to provide suitable conditions for seed production and seedling establishment. Emphasis will be placed on the retention of oaks for acorn production. The thinning for this site will be carried out as a non-commercial practice 'thinning from below' to remove 30 sq.ft. BA/ac. from the poletimber and small sawtimber size classes; retaining approximately 100 sq.ft.BA/acre. In addition to these poles and undesirable small sawtimber trees, all of the interfering woody vegetation, 0.5-4" will be removed as well. This thinning will be carried out by using a low volume, direct application of an appropriate herbicide to target trees using either cut surface, 'hack and squirt', or basal bark application techniques. Additionally, the interfering fern, grass/sedge, and dewberry layer will be treated with appropriate herbicides to remove this interfering, competitive vegetation. This will open the forest floor to increased sunlight necessary for desired seedling establishment.

With the present lack of desirable regeneration and significant amount of interfering vegetation and the low volume necessary to be removed to meet our objective, this work will be carried out as a non-commercial practice. The stand will be monitored for regeneration over the next 5-10 years. As seedlings become established, additional cultural work will be prescribed as necessary to bring this new seedling crop along.

Compartment 32 Stand 6 FY-17



Approx. Acres.....18
Treatable Acres.....18
Forest Type.....Transition
Basal Area.....142
BA AGS.....64
Stocking.....93
Growth Rate.....1.8%
Site Index.....60 for WO
Composition.....Black Cherry 37%
. White Oak 32%
. Red Maple 18%

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

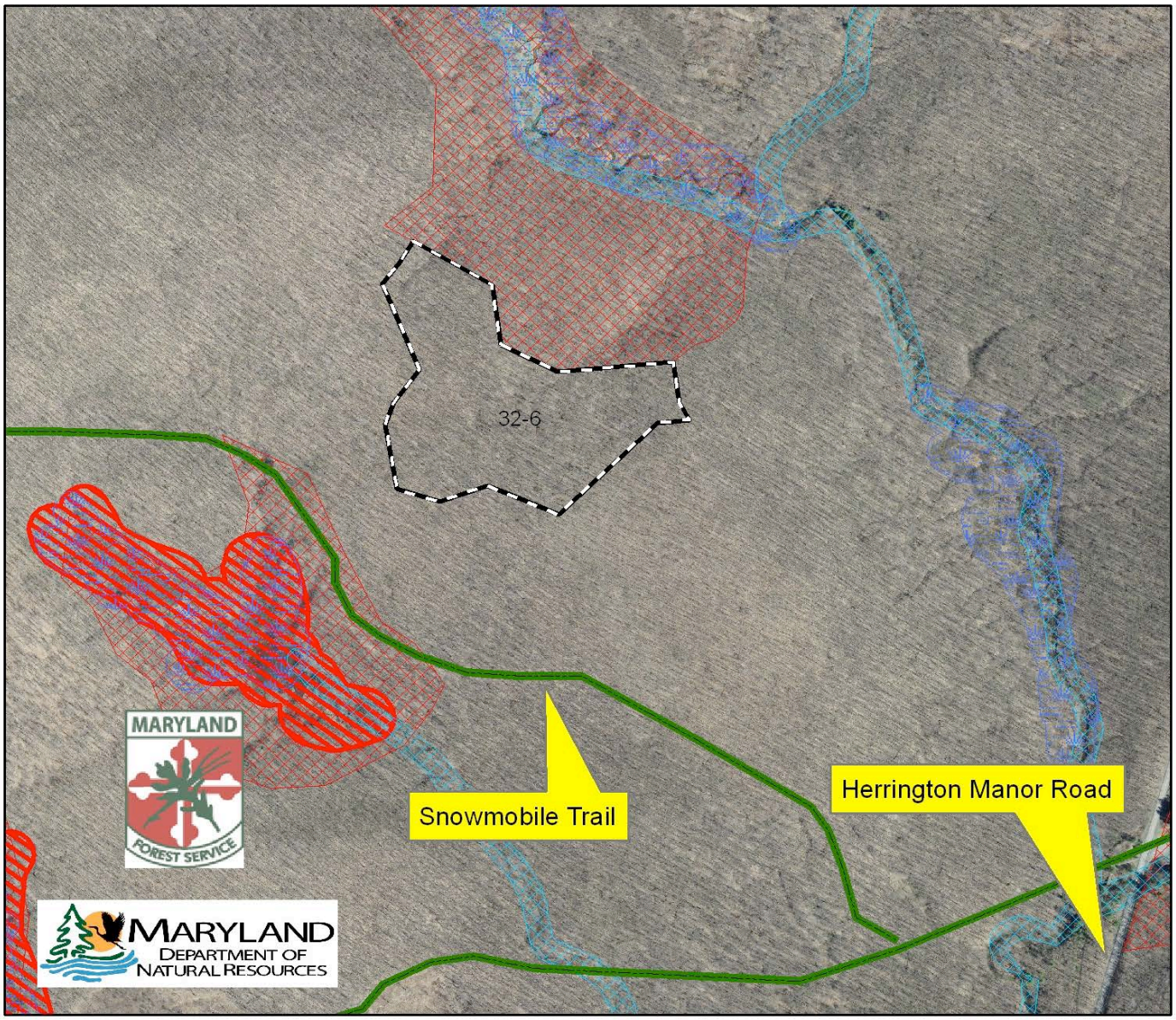
Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

79°27'14.037"W 39°28'9.038"N

N

Compartment 32 Stand 6 FY-17



Approx. Acres.....18
Treatable Acres.....18
Forest Type.....Transition
Basal Area.....142
BA AGS.....64
Stocking.....93
Growth Rate.....1.8%
Site Index.....60 for WO
Composition.....Black Cherry 37%
. White Oak 32%
. Red Maple 18%

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

79°27'14.037"W 39°28'9.038"N

N

COMPARTMENT 32 Stand 7 **FY-17**

Description/Resource Impact Assessment

Location: This stand is situated on the east side of the State Forest's Snaggy Mountain Road, beyond the 'trail shelter campsite #8 within Compartment #32 Stand 7 of the Garrett State Forest.

Forest Community Type and Condition: This 35-acre site contains a 102 year old Alleghany Hardwoods stand. The over story is made up primarily of Black Cherry (57%), Red Maple (23%), and White Oak (10%). This stand is fully stocked at 73% relative density and 140 sq.ft. BA/acre. There is insufficient desirable regeneration present with only 16% of the area containing adequate competitive regeneration.

Interfering Elements: Deer browse pressure in this area is estimated to be moderate and must be addressed when considering regeneration efforts on this site. Interfering plant competition poses a significant impediment to future regeneration with 80+% of the site containing problematic levels of fern and 'grass', and low woody interference primarily in the form of Dewberry. Tall woody interference is found over 15% of the stand and need not be factored into future management prescriptions. Non-native invasive species, (NNIS) were not observed during the inventory. No significant insect pest or diseases were observed.

Historic Conditions: The stand was sprayed for Gypsy Moth Control in 1989, 1990 and 1991 reflecting a significant investment in protecting this valuable stand. There is no record of harvest in the stand since the states acquisition. No evidence of recent fire activity was observed during the recon.

Rare, Threatened and Endangered Species: The Forest Manager knows of no rare, threatened or endangered species on the site, or that would be impacted by the silvicultural prescription.

Habitats and Species of Management Concern: The northwest boundary of the stand fronts the Murley Run ESA in the stream drainage to the north. The eastern boundary of the stand fronts on Murley Run and the HCVF associated with the streams buffers. The Forest Manager knows of no habitats or species of management concern on the site that would be impacted by the silvicultural prescription.

Water Resources: This northeast facing stand drains into Murley Run, within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF stream buffer areas. No heavy equipment will be permitted within the protective riparian buffers of any streams or associated wetlands per the requirements set forth in the Potomac-Garrett State Forest Sustainable Forest Management Plan. In fact, the manageable acres of this stand will be approximately 18 acres of the entire 35 acres in the stand. This reduction is due to unmapped necessary buffers to springs, etc., along the lower slopes.

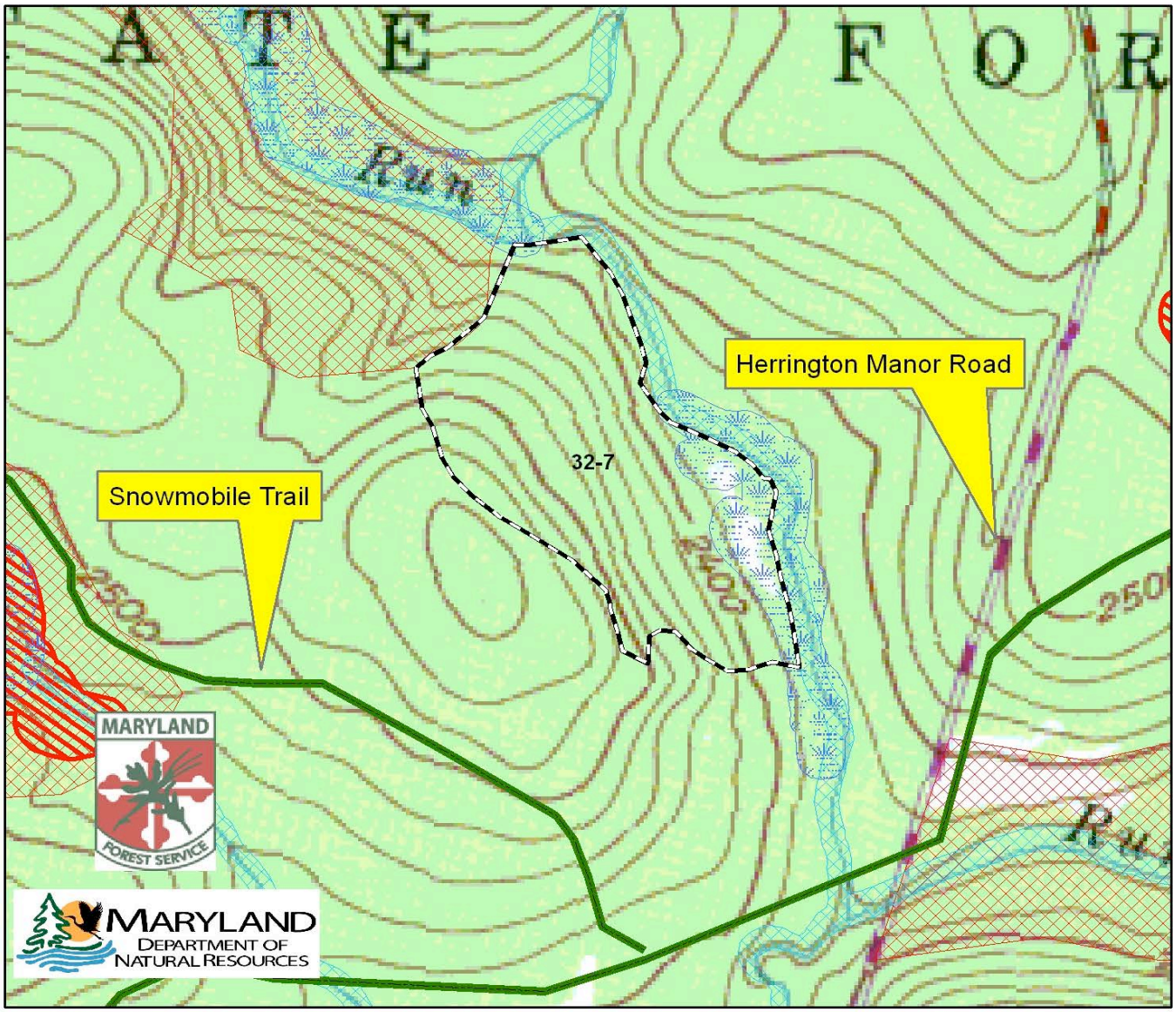
Soil Resources: Most of the underlying soils include are mapped as "Stoney land, steep": These soils are generally moderately deep and well drained with inclusions of some poorly drained soils. Degree of slope ranges from 0-60% throughout the site. Equipment limits range slight to moderate as slopes approach 25%. Hazard of erosion is slight to moderate on the steeper slopes. The site has good productivity for woodland management, with a site index of 60-70 for upland oaks.

Management and Silvicultural Recommendations

The planned silvicultural treatment for this site is to regenerate using a 2-stage, shelter-wood system. The first stage of this regeneration system will be an "establishment / seed cut" that will involve both thinning the stand and treating the interfering understory plants that are limiting seedling development in order to provide suitable conditions for seed production and seedling establishment. Emphasis will be placed on the retention of oaks to retain an oak component to the stand.

The thinning for this site will be carried out by crown thinning, removing 40 sq.ft. BA/ac. of unacceptable growing stock across the stand while retaining approximately 100 sq.ft.BA/acre. Prior to the harvest, the interfering fern, grass/sedge, and dewberry layer will be treated with appropriate herbicides to remove this interfering, competitive vegetation. This will open the forest floor to increased sunlight necessary for desired seedling establishment. Following these treatments, the stand will be monitored for regeneration over the next 5-10 years. As seedlings become established, additional cultural work will be prescribed as necessary to bring this new seedling crop along.

Compartment 32 Stand 7 FY-17



Approx. Acres.....35
Treatable Acres.....18
Forest Type.....Allegheny Hardwood
Basal Area.....140
BA AGS.....120
Stocking.....73
Growth Rate.....2.1%
Site Index.....72 for BC
Composition.....Black Cherry 57%
. Red Maple 23%
. White Oak 10%

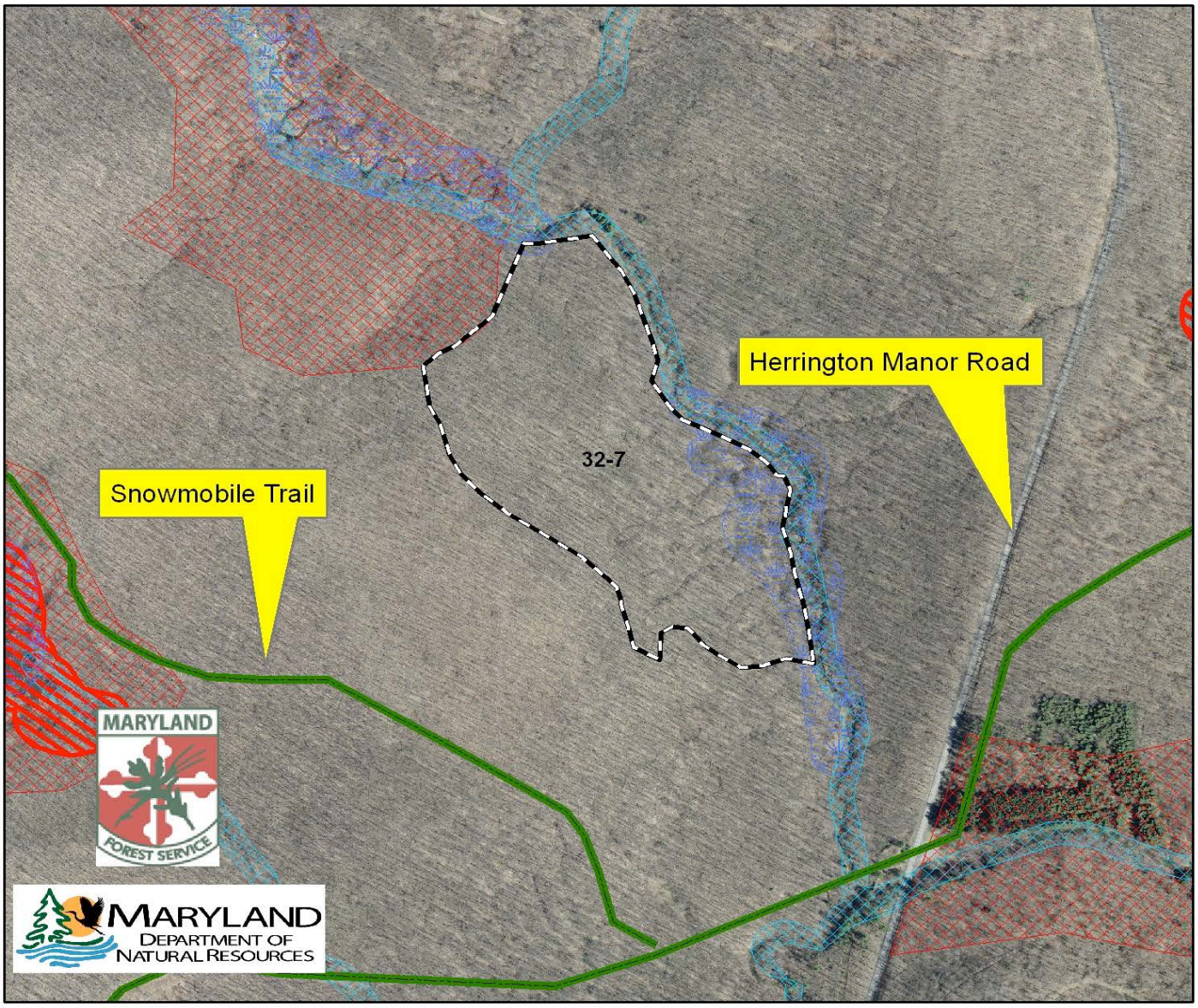
HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

79°26'54.703"W 39°28'6.567"N

Compartment 32 Stand 7 FY-17



Approx. Acres.....35
Treatable Acres.....18
Forest Type.....Allegheny Hardwood
Basal Area.....140
BA AGS.....120
Stocking.....73
Growth Rate.....2.1%
Site Index.....72 for BC
Composition.....Black Cherry 57%
. Red Maple 23%
. White Oak 10%

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

79°26'54.703"W 39°28'6.567"N

COMPARTMENT 32 Stand 33 **FY-17**

Description/Resource Impact Assessment

Location: This stand is situated on the east side of the State Forest's Snaggy Mountain Road, above the 'trail shelter campsite #8. Part of the stand fronts both the Snaggy Mountain Road and the Snaggy Mountain Snowmobile Trail within Compartment #32 Stand 33 of the Garrett State Forest.

Forest Community Type and Condition: This 45-acre site contains a 96 year old hardwood stand, is transitioning from a Mixed Oak stand to Allegheny Hardwoods stand. The over story is made up primarily of Black Cherry (38%), Red Maple (24%), White Oak (14%), and Red Oak (14%). This stand is over stocked at 88% relative density and 150 sq.ft. BA/acre. There is insufficient desirable regeneration present with only19% of the area containing adequate competitive regeneration.

Interfering Elements: Deer browse pressure in this area is estimated to be moderate and must be addressed when considering regeneration efforts on this site. Interfering plant competition poses a significant impediment to future regeneration with 70% of the site containing problematic levels of fern and 'grass' and low woody interference primarily in the form of Dewberry. Tall woody interference is found over 11% of the stand and need not be factored into future management prescriptions. Non-native invasive species, (NNIS) were not observed during the inventory. No significant insect pest or diseases were observed.

Historic Conditions: The stand was sprayed for Gypsy Moth Control in 1989, 1990 and 1991 reflecting a significant investment in protecting this valuable stand. There is no record of harvest in the stand since the State's acquisition. No evidence of recent fire activity was observed during the recon.

Rare, Threatened and Endangered Species: The Forest Manager knows of no rare, threatened or endangered species on the site, or that would be impacted by the silvicultural prescription.

Habitats and Species of Management Concern: The Forest Manager knows of no habitats or species of management concern on the site that would be impacted by the silvicultural prescription. The nearest High Conservation Value Forest (HCFV) area is located northwest of the stand, across the Snaggy Mountain Road, and will not be impacted by management work in this stand.

Water Resources: This ridge top stand drains toward un-named tributaries of both Murley Run and Herrington Creek, within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF stream buffer areas. No heavy equipment will be permitted within the protective riparian buffers of any streams or associated wetlands per the requirements set forth in the Potomac-Garrett State Forest Sustainable Forest Management Plan.

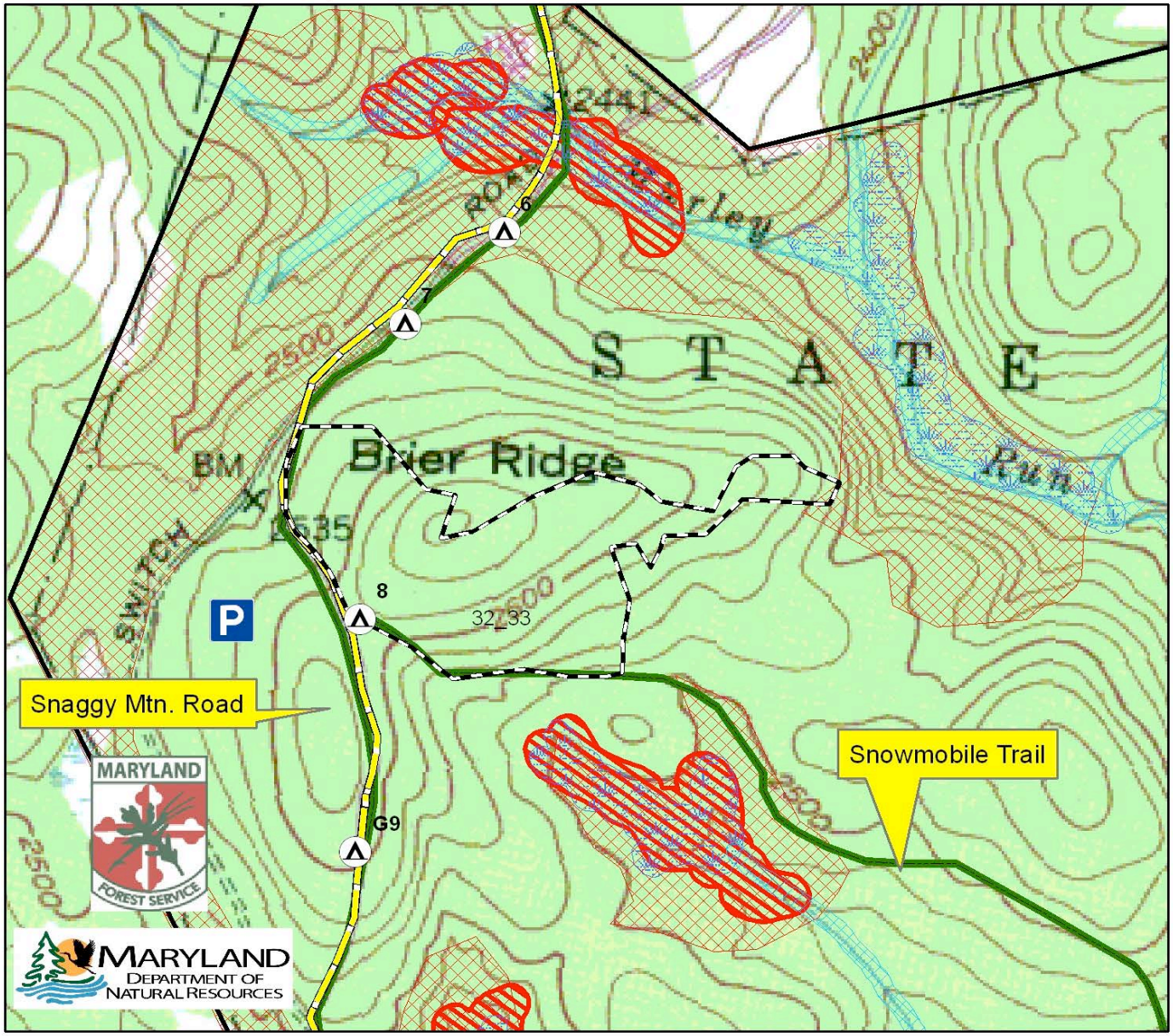
Soil Resources: Underlying soils include: 'Dekalb and Gilpin very stony loams'. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils. Degree of slope ranges from 0-25% throughout the site. Equipment limits range slight to moderate as slopes approach 25%. Hazard of erosion is slight to moderate on the steeper slopes. The site has very good productivity for woodland management, with a site index of 65-75 for upland oaks.

Management and Silvicultural Recommendations

The planned silvicultural treatment for this site is to regenerate using a 2-stage shelter-wood system in order to retain a solid oak component in the future. The first stage of this regeneration system will be an "establishment / seed cut" that will involve both thinning the stand and treating the interfering understory plants that are limiting seedling development in order to provide suitable conditions for seed production and seedling establishment. Emphasis will be placed on the retention of oaks for acorn production. The thinning for this site will be carried out as a crown thinning conducted as a commercial harvest. The harvest will remove 50 sq.ft. BA/ac. from unacceptable growing stock and will yield approximately 3,000 Bd. Ft. /Ac. During the marking of the thinning, Forest Staff will identify "islands" of 8-12 over story trees and the associated understory for long term retention representative of the original stand. Where possible, islands will include cavity/den trees and other unique or important mast producers.

Additionally, the interfering fern, grass/sedge, and dewberry layer will be treated with appropriate herbicides to remove this interfering, competitive vegetation. This will open the forest floor to increased sunlight necessary for the desired seedling establishment. The stand will be monitored for seedling establishment, over the next 5-10 years. As seedlings become established, additional cultural work will be prescribed as necessary to bring this new seedling crop along.

Compartment 32 Stand 33 FY-17



Approx. Acres.....45
Harvest Acres.....42
Forest Type.....Transition
Basal Area.....150
BA AGS.....115
Stocking.....88%
Growth Rate.....2.5%
Site Index.....65 for BC
Composition.....Black Cherry 38%
. Red Maple 24%
. White Oak 14%

HCVF Components

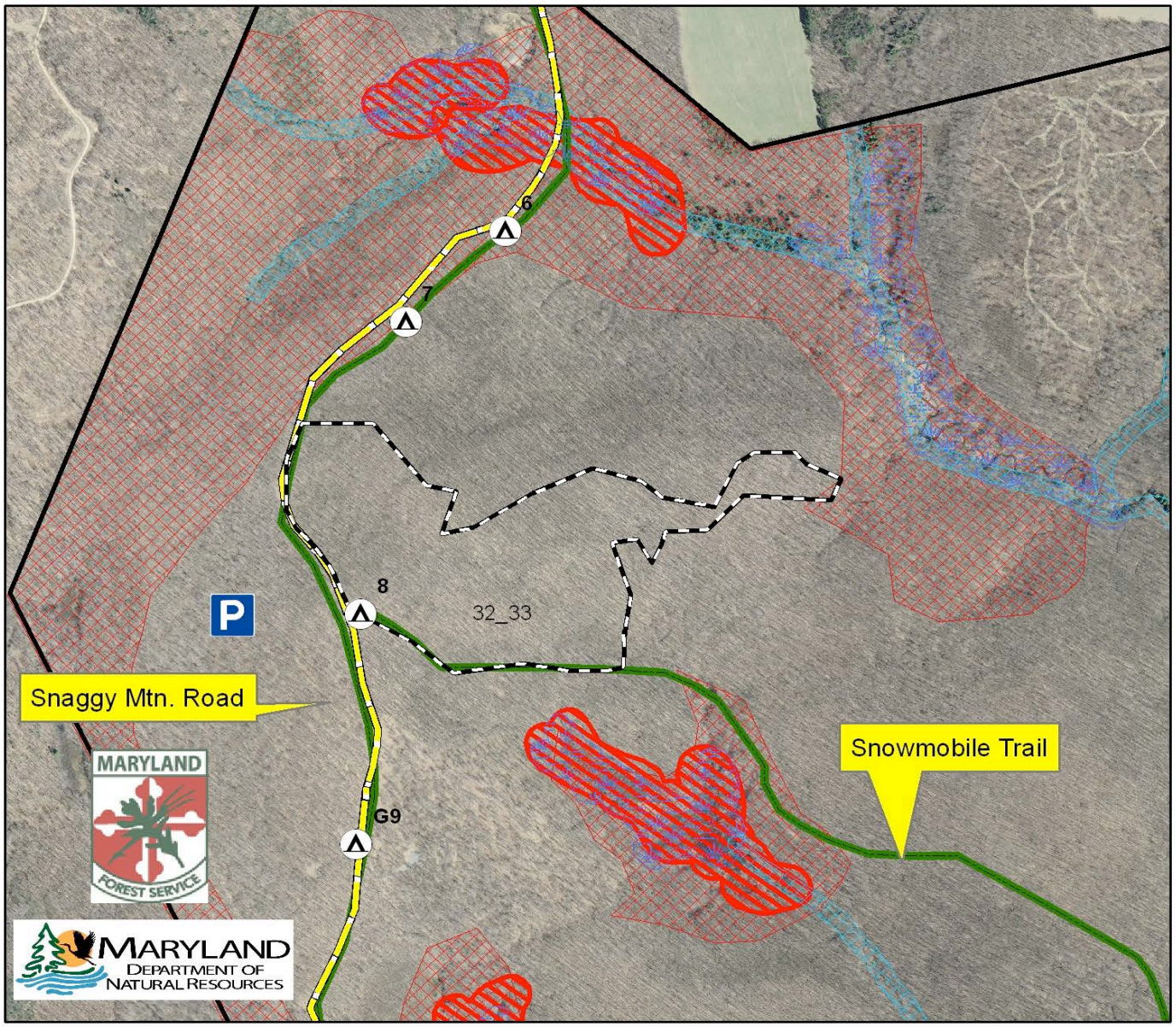
- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/ 50' Buffer

0 280 560 1,120 1,680 2,240 Feet

N

79°27'55.477"W 39°28'16.411"N

Compartment 32 Stand 33 FY-17



Approx. Acres.....45
Harvest Acres.....42
Forest Type.....Transition
Basal Area.....150
BA AGS.....115
Stocking.....88%
Growth Rate.....2.5%
Site Index.....65 for BC
Composition.....Black Cherry 38%
. Red Maple 24%
. White Oak 14%

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

N

0 280 560 1,120 1,680 2,240 Feet

Wetlands w/ 50' Buffer

79°27'55.477"W 39°28'16.411"N

COMPARTMENT 33 Stand 11, / 34-1 **FY-17**

Description/Resource Impact Assessment

Location: This area includes 41 acres in Compartments 33&34, (Stands 11&1 respectively) of the Garrett State Forest. The stands are located on the east side of the Herrington Manor Road, at the intersection of the Herrington Manor and Cranesville Roads. A utility line right-of-way divides Stand 11 from 1. Both the 'Snaggy Mountain Snowmobile Trail' and 'The 5 ½ mile Hiking Trail' run through Stand 33-11.

Forest Community Type and Condition: This 41-acre site contains a 100+ year old medium sawtimber sized "transition stand". The over story is made up primarily of White Oak (45%), Black Cherry (22%) and Red Maple (22%). This stand is over stocked at 95% relative density and 130 sq.ft. BA/acre. Typical of such heavily stocked, mature, stands there is very little established desirable regeneration present with less than 14% of the area containing "desirable" regeneration.

Interfering Elements: Deer browse pressure in this area is estimated to be high and must be addressed when considering regeneration efforts on this site. Interfering understory plant competition is significant, with approximately 16% of the site containing problematic densities of fern competition. Dewberry is present on the majority of the site, and until recently has not been inventoried as an interfering plant. However, due to recent observations, it will be considered in any future regeneration proposals. Tall woody interference occurs on 30% of the site, largely a result of storm damaged saplings from 2012 Super Storm Sandy. Non-native invasive species (NNIS) were observed on only 6% of the sample points, and included Garlic mustard, Japanese Barberry and Japanese Stilt grass (along road ditch). No significant insect pest or diseases were observed.

Historic Conditions: State Forest records show no history of harvest since the State's acquisition. No evidence of recent fire activity was observed during the recon.

Rare, Threatened and Endangered Species: At this time, the Forest Manager knows of no rare, threatened or endangered species on the site, or that would be impacted by the silvicultural prescription.

Habitats and Species of Management Concern: These stands sit upslope of the Herrington Springs ESA, an area of High Conservation Value Forest (HCVF) that is known to contain critical habitats for various rare, threatened or endangered plant and animal species including one globally rare amphipod associated with subterranean water sources. To the west of the stands, (across the county road), there is additional HCVF that is known to contain critical habitats for various rare, threatened or endangered plant and animal species including certain salamanders, various plants, large cranberry, and bobcat dens.

At this time, the Forest Manager knows of no critical habitats or species of management concern on the site, or that would be impacted by the silvicultural prescription.

Water Resources: These east facing stands drain toward an un-named tributary of Herrington Creek, within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF stream buffer areas. No heavy equipment will be permitted within the protective riparian buffers of the streams and any associated wetlands per the requirements set forth in the Potomac-Garrett State Forest Sustainable Forest Management Plan.

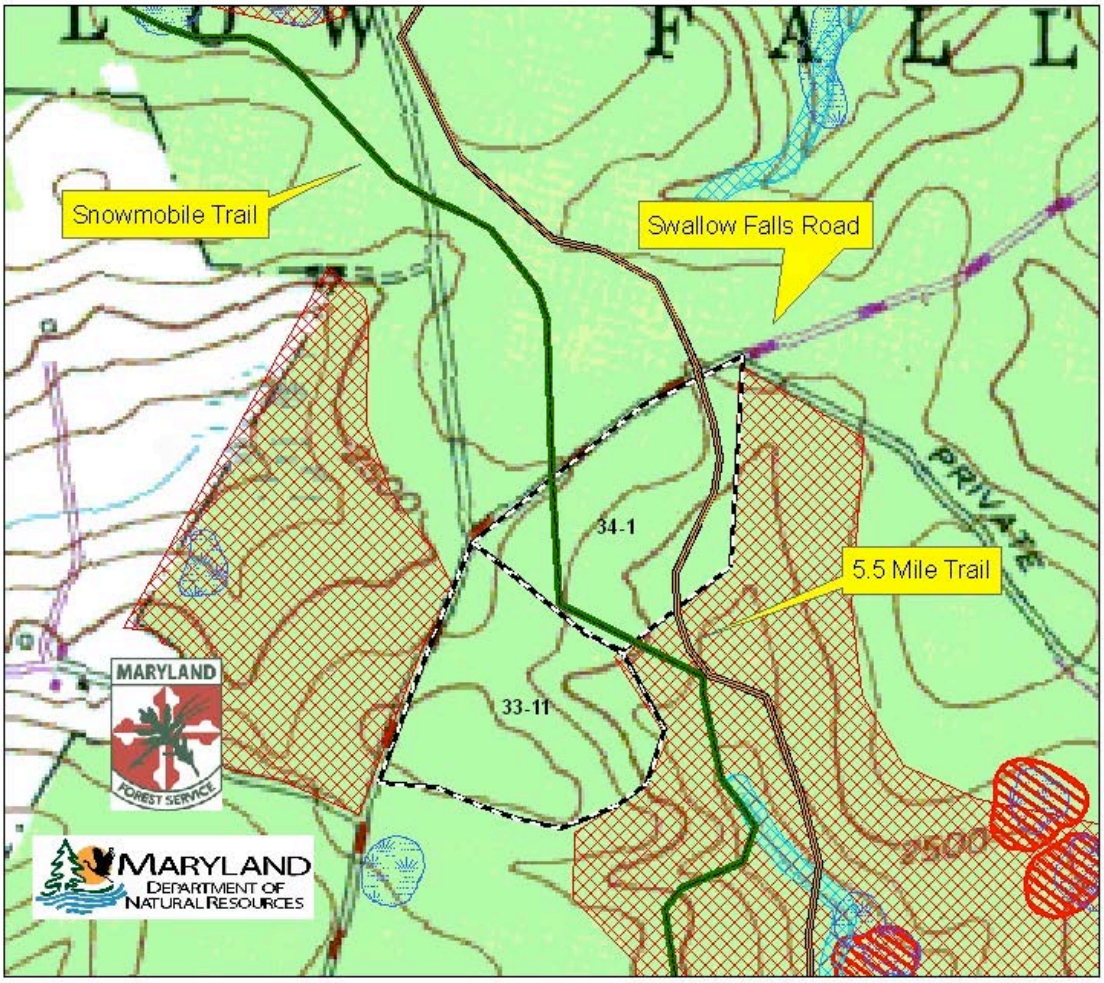
Soil Resources: Underlying soils are mapped as 'Dekalb and Gilpin very stony loams'. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils. Degree of slope ranges from 0-25% throughout the site. Equipment limits range from slight to moderate. Hazard of erosion is slight to moderate. The site has good productivity for woodland management, with a site index of 65-75 for upland oaks.

Management and Silvicultural Recommendations

The planned silvicultural treatment for this site is to thin / harvest this overstocked stand. This practice will reduce stocking to approximately 60-65% relative density and a basal area of 80-85 sq. ft. of BA/acre. The thinning will largely be a 'thinning from below' with removals taken primarily from the suppressed and intermediate crown positions, as well as removal of over mature trees to allow sufficient room for the best quality small and medium saw timber trees to grow. This practice will decrease competition among the residual trees thereby improving health and vigor of the stand. This thinning practice is expected to increase sunlight on the forest floor, stimulating growth of herbaceous understory plants including the problematic dewberry and fern.

Harvest will be managed to minimize trail and visitor impact. Timber marking will take into consideration the aesthetic values along the trails leaving Hemlocks, Sugar Maple and other trees of visual interest along the trail corridor. For public safety, the trail segments will be closed during contracted operations with closures being communicated to the public using available outlets. Signs will be posted at all effected trail heads advising of the management work being carried out, and redirecting trail users to other available trails on the state forest.

Compartment 33 Stand 11/ Comp 34 Stand 1 FY-17



Approx. Acres.....41.
Harvest Acres.....37
Forest Type.....Mixed Oak
Basal Area.....130
BA AGS.....108
Stocking.....96%
Growth Rate.....1.8%
Site Index.....60 for WO
Composition.....White Oak 45%
. Black Cherry 22%
. Red Maple 22%

0 215 430 860 1,290 1,720
Feet

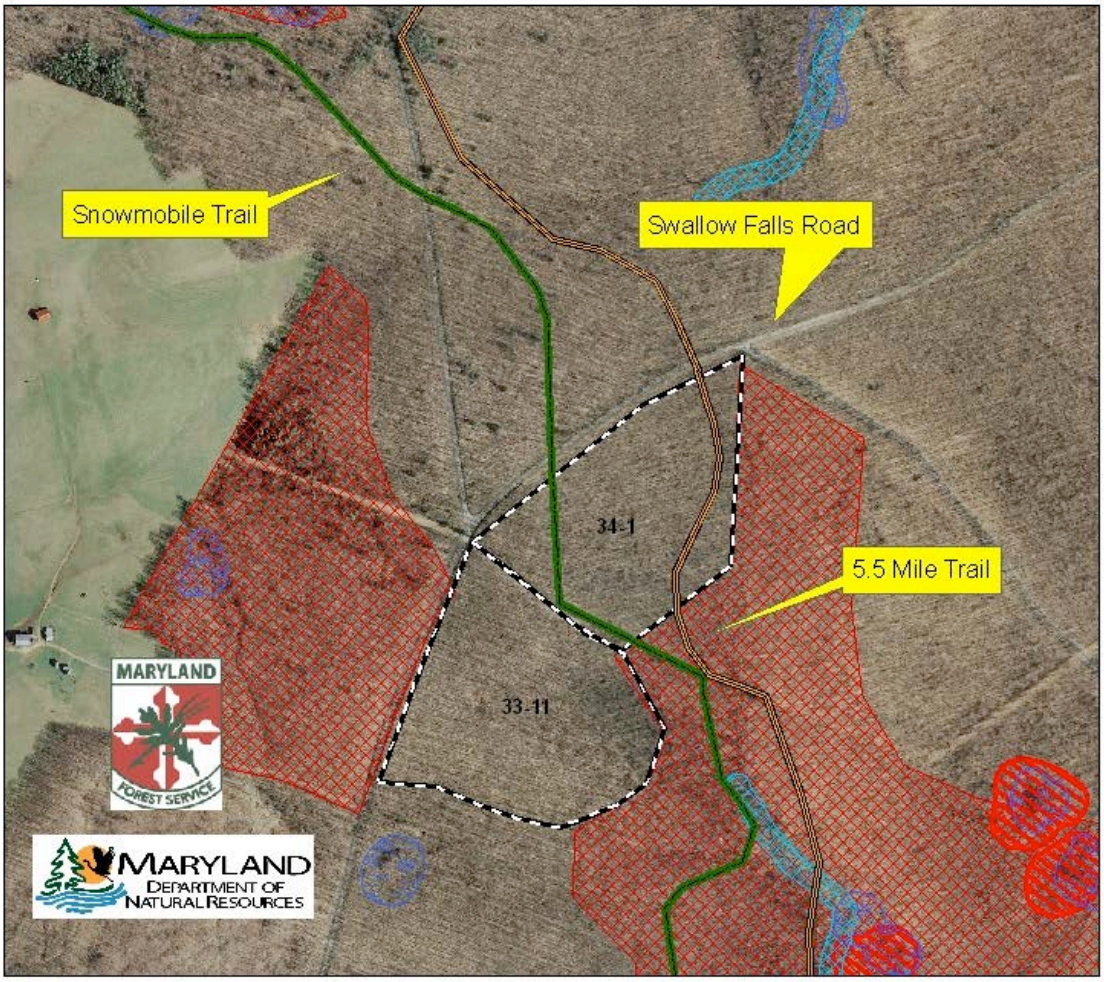
HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

N

79°26'21.684"W 39°28'59.681"N

Compartment 33 Stand 11/ Comp 34 Stand 1 FY-17



Approx. Acres.....41.
Harvest Acres.....37
Forest Type.....Mixed Oak
Basal Area.....130
BA AGS.....108
Stocking.....96%
Growth Rate.....1.8%
Site Index.....60 for WO
Composition.....White Oak 45%
. Black Cherry 22%
. Red Maple 22%

0 215 430 860 1,290 1,720 Feet

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

Wetlands w/50' Buffer

N

79°26'21.684"W 39°28'59.681"N

COMPARTMENT 43 Stand 5 **FY-17**

Description/Resource Impact Assessment

Location: This area is part of the Kindness Demonstration Forest, and is the 3rd 'block along the self-guided interpretive forest management trail. The site is 0.25 mi. south of the parking lot at the entrance to the Demonstration Area. The stand is located along the southwest side of the trail / access road in Compartment #43, Stand 5 of the Garrett State Forest.

Forest Community Type and Condition: This 16-acre site contains a mature 92 year old Mixed Oak stand. The over story is made up primarily of Scarlet Oak (37%), White Oak (25%), Red Oak (19%), and Red Maple (12%). This stand is over stocked at 98% relative density and 116 sq.ft. BA/acre. Overall there is insufficient desirable regeneration present with approx.67% of the area containing "desirable" regeneration. However, of this 67%, there is a promising amount of competitive and established oak seedlings present with 61% of the 67% being stocked with oak.

Interfering Elements: Deer browse pressure in this area is estimated to be moderate to high and must be addressed when considering regeneration efforts on this site. Interfering understory plant competition is sufficient to cause significant interference with regeneration efforts. Low woody interference is just under the 30% threshold of concern at (28%), and there is another 6% impeded by fern and grass. As half of the low woody interference is comprised of extremely aggressive Dewberry, this moderate amount is not to be taken lightly. In addition, there is 11% interference by undesirable tally woody interference (primarily serviceberry, so actually of less concern). Non-native invasive species (NNIS) were not observed in the stand. No significant insect pest or diseases were observed.

Historic Conditions: State Forest records show no history of harvest since the State's acquisition. No evidence of recent fire activity was observed during the recon.

Rare, Threatened and Endangered Species: At this time, the Forest Manager knows of no rare, threatened or endangered species on the site, or that would be impacted by the silvicultural prescription.

Habitats and Species of Management Concern: The nearest HCVF is located down slope and across the graveled access road. This HCVF is associated with a wetland of special state concern that is known to contain critical habitats for various rare, threatened or endangered plant and animal species including the Frances Cave Amphipod, a globally rare subterranean organism. The HCVF also serves as a deer wintering area. At this time, the Forest Manager knows of no critical habitats or species of management concern on the site, or that would be impacted by the silvicultural prescription.

Water Resources: This ridge top stand drains to un-named tributaries of Dunkard Lick Run, and Snowy Creek, within the Youghiogheny River Watershed. The proposed silvicultural treatments

will be outside of all HCVF stream buffer areas. No heavy equipment will be permitted within the protective riparian buffers of the streams and any associated wetlands per the requirements set forth in the Potomac-Garrett State Forest Sustainable Forest Management Plan.

Soil Resources: Underlying soils include: 'Dekalb and Gilpin very stony loams' and 'Cookport and Ernest very stony silt loams'. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils, with moderate equipment limits because water table is close to the soil surface in winter and early in spring. Degree of slope ranges from 0-25% throughout the site. The site has very good productivity for woodland management, with a site index of 75-85 for upland oaks.

Management and Silvicultural Recommendations

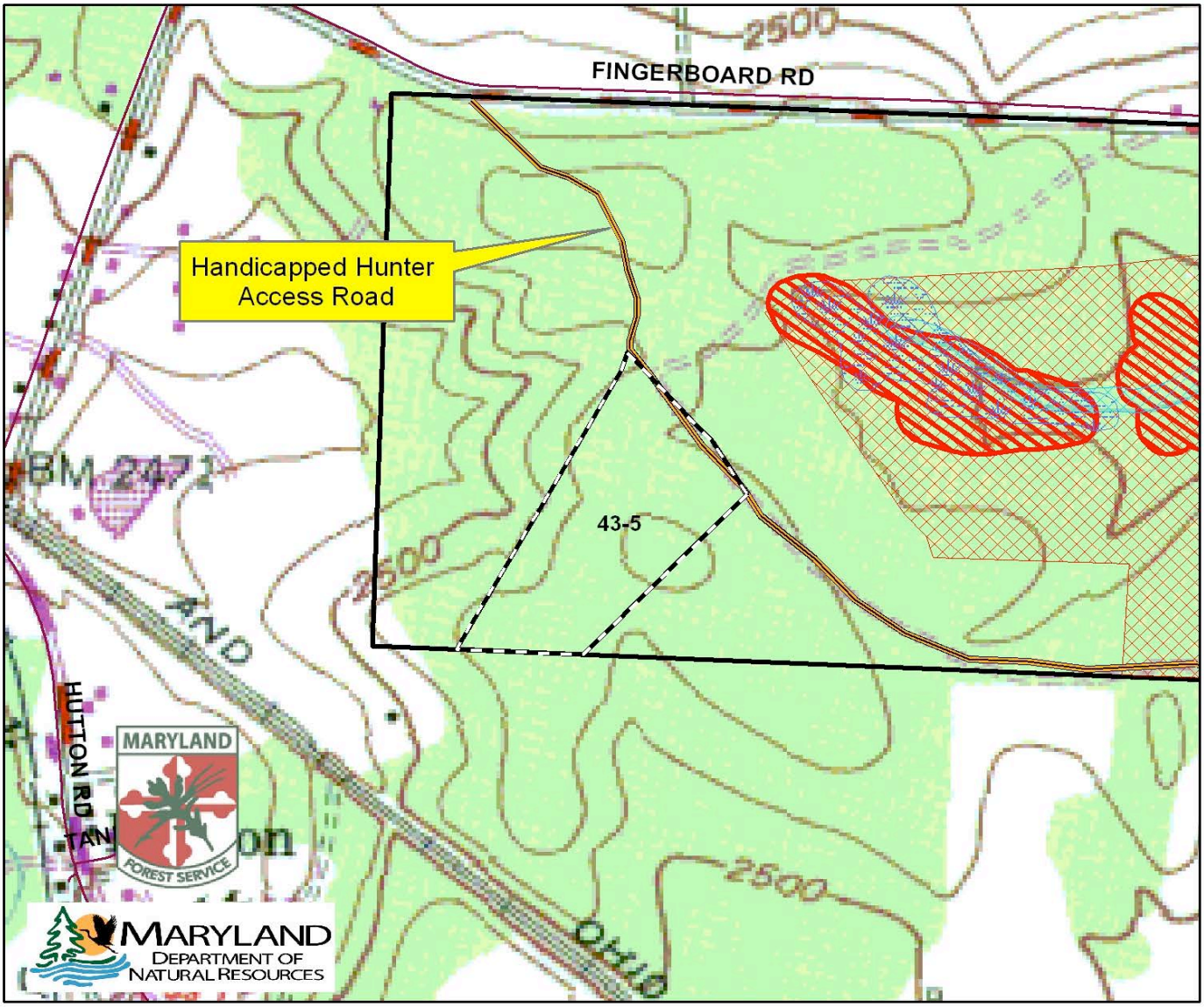
The planned silvicultural treatment for this site is to regenerate this stand using a 2-stage shelter-wood system. The first stage of this regeneration system will serve as both an "establishment / seed cut" and a "first removal cut". This harvest will involve thinning the stand to enhance conditions for seed production and seedling establishment, as well as to release from competition the established and competitive oak regeneration, allowing it to further develop its competitive position looking forward to final release/harvest. This practice will reduce stocking to approximately 60% relative density and a basal area of 60-70 sq. ft. of BA/acre. The thinning will largely be a 'thinning from below' with removals taken primarily from the suppressed and intermediate crown positions, with some dominant and co-dominant trees removed to allow sufficient room for the best trees on site to grow as seed producers. Marking will focus on removal of Scarlet Oaks as the species as a whole seems to be doing poorly in this area. Storm damaged saplings will be cut to encourage stump sprouting. Approximately 3,500 Bd. Ft. / acre will be removed in this operation.

Interfering plants will not be treated at this point as regeneration stocking levels are just below desired thresholds and will be further bolstered by resultant stump sprouting. To that end, deer impacts will be addressed by leaving "high tops and lops" to provide additional browse protection to developing regeneration.

In order to retain important wildlife habitat elements and to preserve a 'legacy' component of the original stand, important cavity trees will be identified for protection during this thinning operation, in order that they may be carried through to future final harvest. Future retention plans will be for single tree retention, as the Scarlet oak on site does not lend itself well to 'island retention'

Once the stand is fully stocked with desirable seedlings, (in approx. 5-10 years) the 'second stage' of this system may be carried out as an over story removal. This final harvest will release the now competitive seedlings and desirable regeneration from overhead competition to fully regenerate the site.

Compartment 43 Stand 5 FY-17



Approx. Acres.....16
Harvest Acres.....16
Forest Type.....Mixed Oak
Basal Area.....123
BA AGS.....80
Stocking.....98%
Growth Rate.....2.2%
Site Index..... 50 for NRO
Composition.....Scarlet Oak 37%
. White Oak 25%
. Red Oak 19%

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

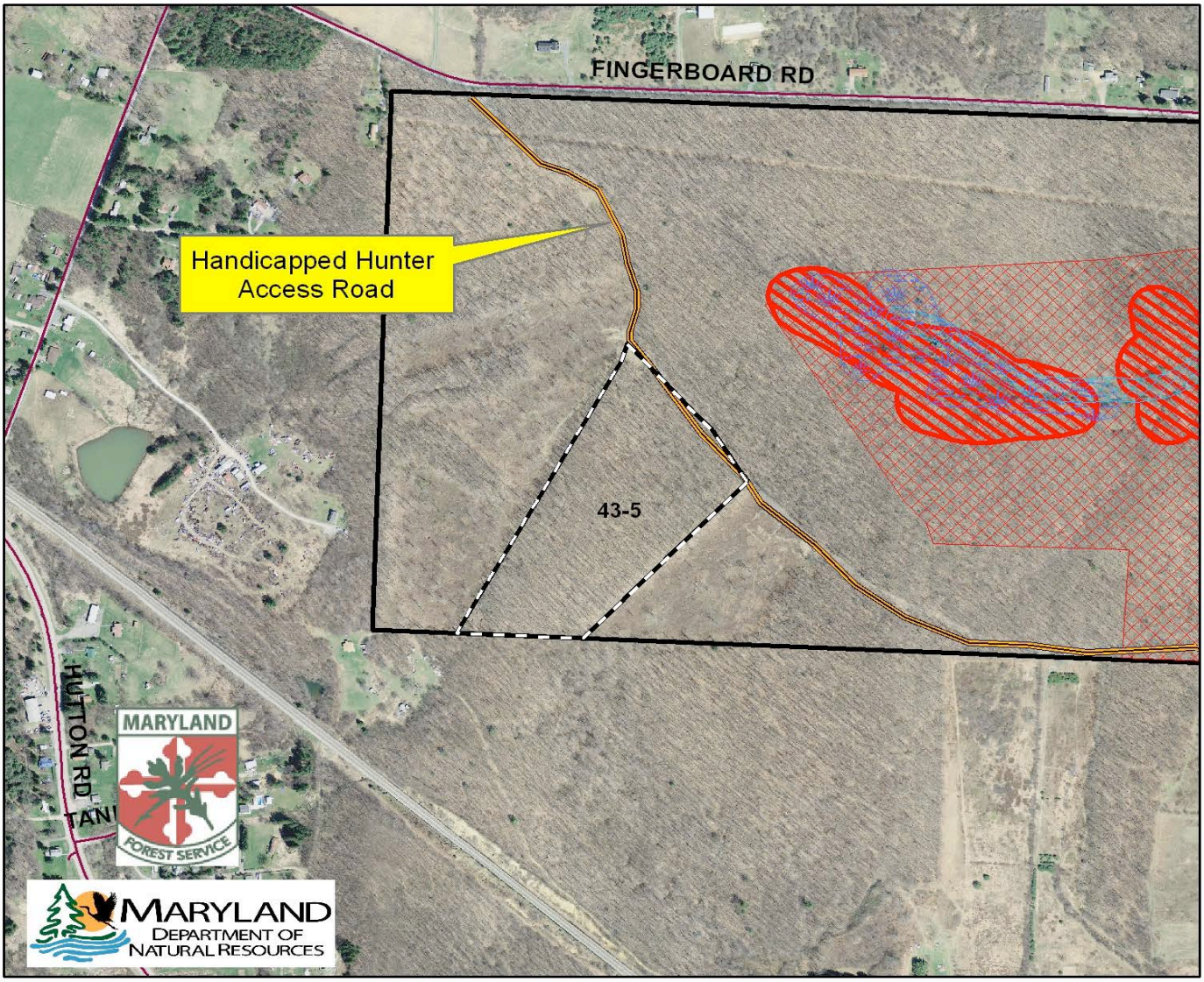
0 220 440 880 1,320 1,760 Feet

Wetlands w/50' Buffer

79°28'17.53"W 39°25'10.849"N

N

Compartment 43 Stand 5 FY-17



Approx. Acres	16
Harvest Acres	16
Forest Type	Mixed Oak
Basal Area	123
BA AGS	80
Stocking	98%
Growth Rate	2.2%
Site Index	50 for NRO
Composition	Scarlet Oak 37%
.	White Oak 25%
.	Red Oak 19%

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

N

79°28'17.53"W 39°25'10.849"N

COMPARTMENT 43 Stand 7 **FY-17**

Description/Resource Impact Assessment

Location: This area is part of the Kindness Demonstration Forest, and is the 6th 'block along the self-guided interpretive forest management trail. The site is 0.5 mi. south of the parking lot at the entrance to the Demonstration Area. The stand is located along the southwest side of the trail / access road in Compartment #43, Stand 7 of the Garrett State Forest.

Forest Community Type and Condition: This 6-acre site contains a mature 92 year old Mixed Oak stand. The over story is made up primarily of Scarlet Oak (40%), Black Cherry (27%), White Oak (17%), and Red Maple (15%). This stand is over stocked at 91% relative density and 120 sq.ft. BA/acre. Overall there is insufficient desirable regeneration present with approx.40% of the area containing "desirable" regeneration.

Interfering Elements: Deer browse pressure in this area is estimated to be moderate to high and must be addressed when considering regeneration efforts on this site. Interfering understory plant competition is sufficient to cause significant interference with regeneration efforts, with 75% of site impacted. Tall woody interference occupies 38% of the site and is made up primarily of Red Maple, which however, on this site, can be considered desirable. Low woody interference is found on 63% of the site and consists primarily of Dewberry. Non-native invasive species (NNIS) were not observed in the stand. No significant insect pest or diseases were observed.

Historic Conditions: State Forest records show no history of harvest since the State's acquisition. No evidence of recent fire activity was observed during the recon.

Rare, Threatened and Endangered Species: At this time, the Forest Manager knows of no rare, threatened or endangered species on the site, or that would be impacted by the silvicultural prescription.

Habitats and Species of Management Concern: The nearest HCVF is located down slope and across the graveled access road. This HCVF is associated with a wetland of special State concern that is known to contain critical habitats for various rare, threatened or endangered plant and animal species including the Frances Cave Amphipod, a globally rare subterranean organism. The HCVF also serves as a deer wintering area. At this time, the Forest Manager knows of no critical habitats or species of management concern on the site, or that would be impacted by the silvicultural prescription.

Water Resources: This ridge top stand drains to un-named tributaries of Dunkard Lick Run within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF stream buffer areas. No heavy equipment will be permitted within the protective riparian buffers of the streams and any associated wetlands per the requirements set forth in the Potomac-Garrett State Forest Sustainable Forest Management Plan.

Soil Resources: Underlying soils include: 'Dekalb and Gilpin very stony loams' and 'Cookport and Ernest very stony silt loams'. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils, with moderate equipment limits because water table is close to the soil surface in winter and early in spring. Degree of slope ranges from 0-25% throughout the site. The site has very good productivity for woodland management, with a site index of 75-85 for upland oaks.

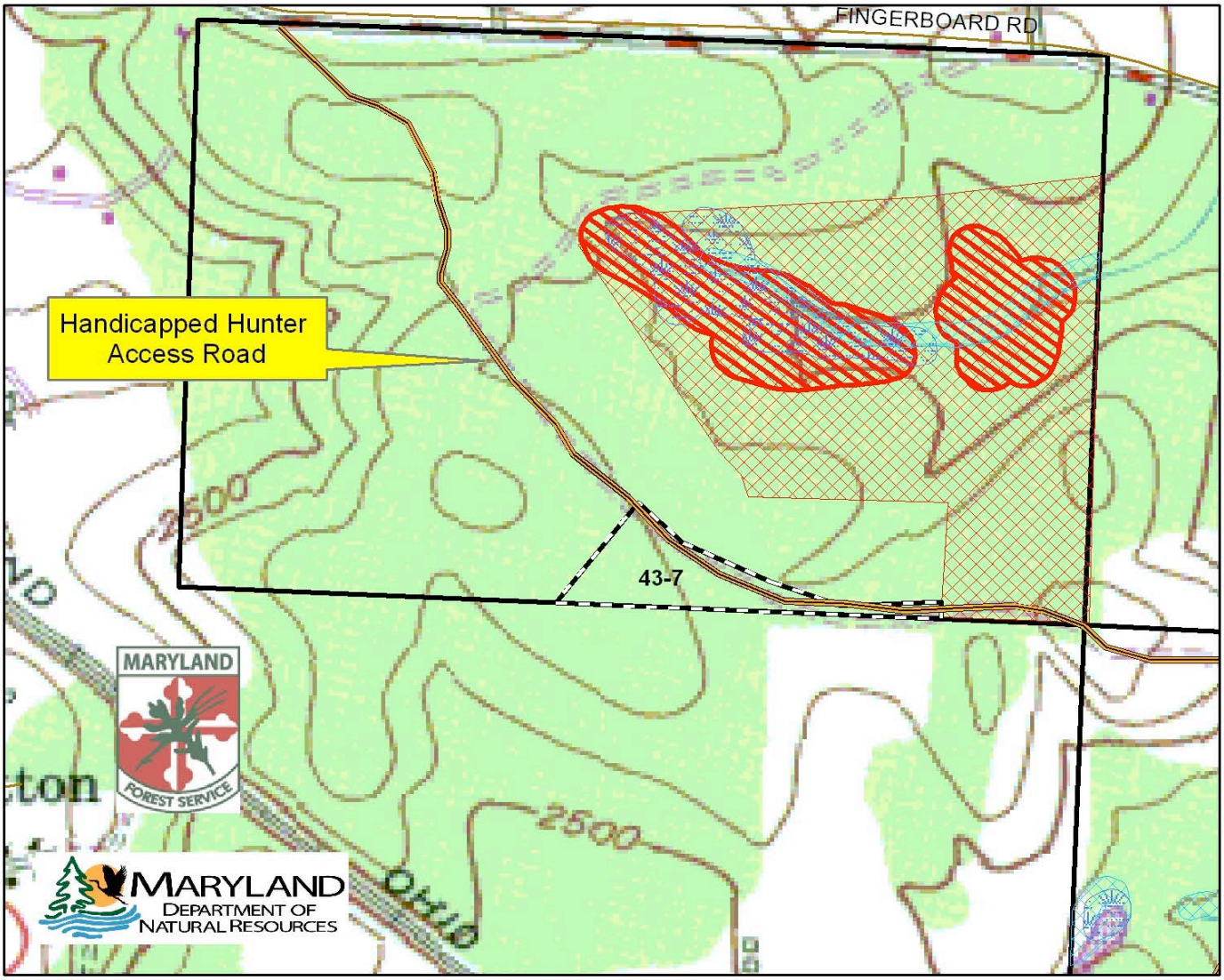
Management and Silvicultural Recommendations

The planned silvicultural treatment for this site is to regenerate this stand using a 'clear-cut with variable retention'. All trees greater than 2' DBH will be harvested, excepting 4-6 dominant or co-dominant trees per acre. Approximately 8,000 Bd. Ft. / acre will be removed in this operation.

Interfering plants will not be treated as this harvest will be incorporated into the areas interpretive program. The harvest will demonstrate the results of regeneration harvests done with little concern for desired future stand composition, existing advanced regeneration, nor addressing the interfering vegetations impact on future stand composition. As Red Maple dominates the present understory, it is expected that this stand will shift in species composition to a Maple and Cherry dominated stand. This harvest will include interpretive signage explaining the value of 'up front investments' to control species composition. As deer impacts are expected to be significant, "high tops and lops" will be retained to provide additional browse protection to developing regeneration.

In order to retain important wildlife habitat elements and to preserve a 'legacy' component of the original stand, important cavity trees and mast producers will be identified for protection during this harvest. Retention will be carried out with single trees as the Scarlet Oak on site does not lend itself well to 'island retention'

Compartment 43 Stand 7 FY-17



Approx. Acres.....6
Harvest Acres.....5
Forest Type.....Mixed Oak
Basal Area.....120
BA AGS.....60
Stocking.....91
Growth Rate..... 2.6%
Site Index..... 50 for RO
Composition..... Scarlet Oak 40%
. Black Cherry 27%
. White Oak 17%

HCVF Components

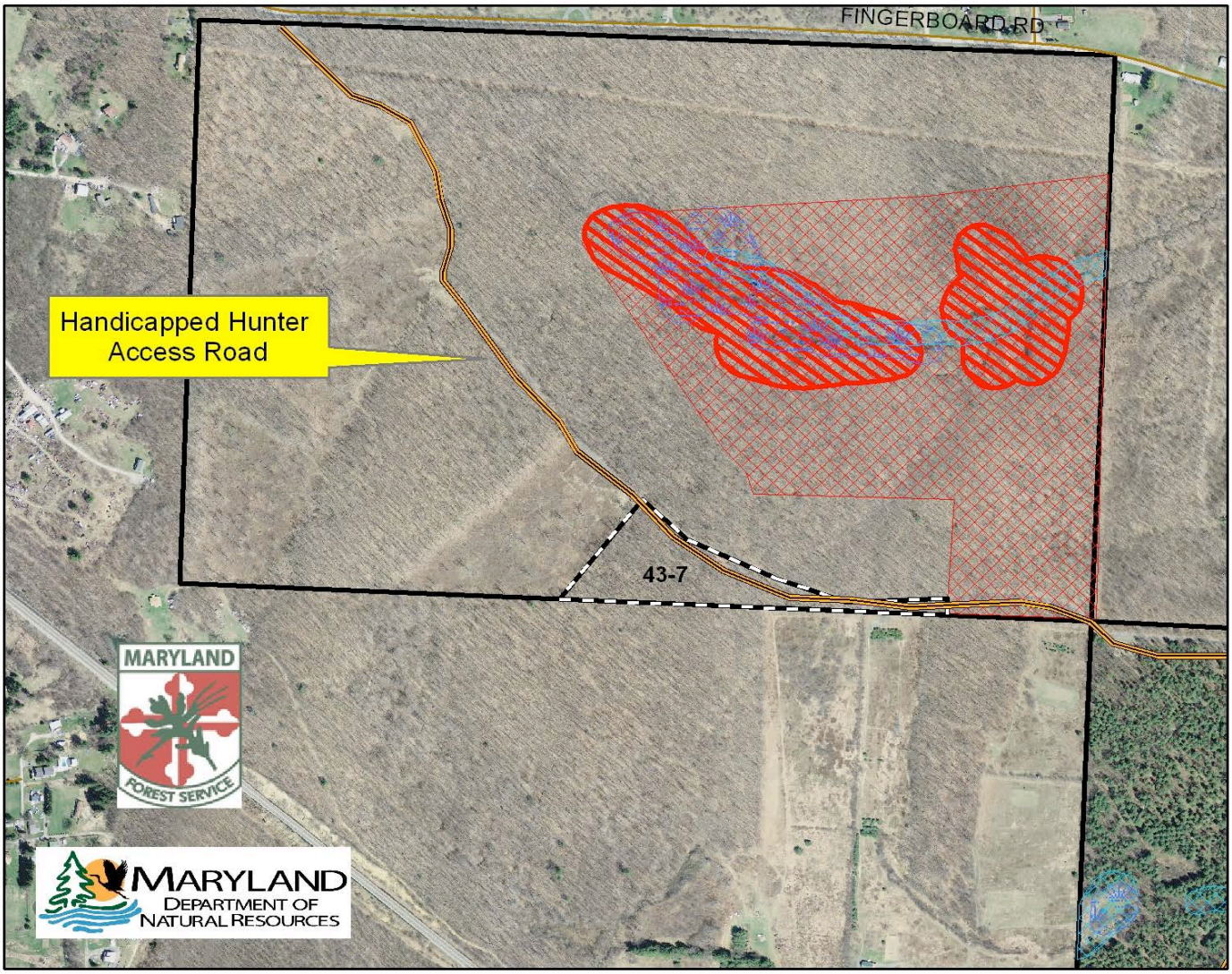
- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

79°28'7.302"W 39°25'2.248"N

Compartment 43 Stand 7 FY-17



Approx. Acres	6
Harvest Acres	5
Forest Type	Mixed Oak
Basal Area	120
BA AGS	60
Stocking	91
Growth Rate	2.6%
Site Index	50 for RO
Composition	Scarlet Oak 40%
.	Black Cherry 27%
.	White Oak 17%

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

N

79°28'7.302"W 39°25'2.248"N

COMPARTMENT 44 Stand 2 **FY-17**

Description/Resource Impact Assessment

Location: This area is part of the Kindness Demonstration Forest. The stand is located along the west side of the access road and borders the north side of the 'food plot/field' in Compartment #44, Stand 2 of the Garrett State Forest.

Forest Community Type and Condition: This 4-acre site contains a mature 50 year old Red Pine plantation. The over story contains Red Pine (93%) and the remaining 7% of the stand is made up of black cherry pole timber. This stand has suffered significant mortality due to bark beetle infestations which have created considerable openings for the black cherry poles to become established in. The overall condition of the stand is poor, and should have been salvaged years ago. There is insufficient acceptable growing stock to fully stock this stand. Stocking is presently 75% relative density containing 137 sq.ft. BA/acre. However, half of this stock is deemed to be in poor condition and is unacceptable growing stock. There is little to no regeneration present in the understory.

This stand fronts on a food plot/field opening that had been slated for a 'wildlife-edge cut' in the FY-15 AWP; this work has not been completed due to lack of merchantability/low volume of the wood to be cut.

Interfering Elements: Deer browse pressure in this area is estimated to be moderate to high and must be addressed when considering regeneration efforts on this site. Interfering understory plant competition is sufficient to cause significant interference with regeneration efforts. Low woody interference in the form of creeping Dewberry is found throughout 75% of this small stand. Problematic levels of fern and grass are found on virtually 100% of site. Non-native invasive species (NNIS) were not observed in the stand. Insect pest populations seem to have stabilized, though their initial impacts have left a considerably damaged stand behind.

Historic Conditions: State Forest records show no history of harvest since the State's acquisition. Stand suffered significant mortality in the late 1990s from nematode and bark beetle infestations. The stand was not salvage harvested at that time as it served as an educational outlet and demonstration site showing how overstocked stands were subject to insect and disease losses. No evidence of recent fire activity was observed during the recon.

Rare, Threatened and Endangered Species: At this time, the Forest Manager knows of no rare, threatened or endangered species on the site, or that would be impacted by the silvicultural prescription

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Habitats and Species of Management Concern:
At this time, the Forest Manager knows of no critical habitats or species of management concern on the site, or that would be impacted by the silvicultural prescription.

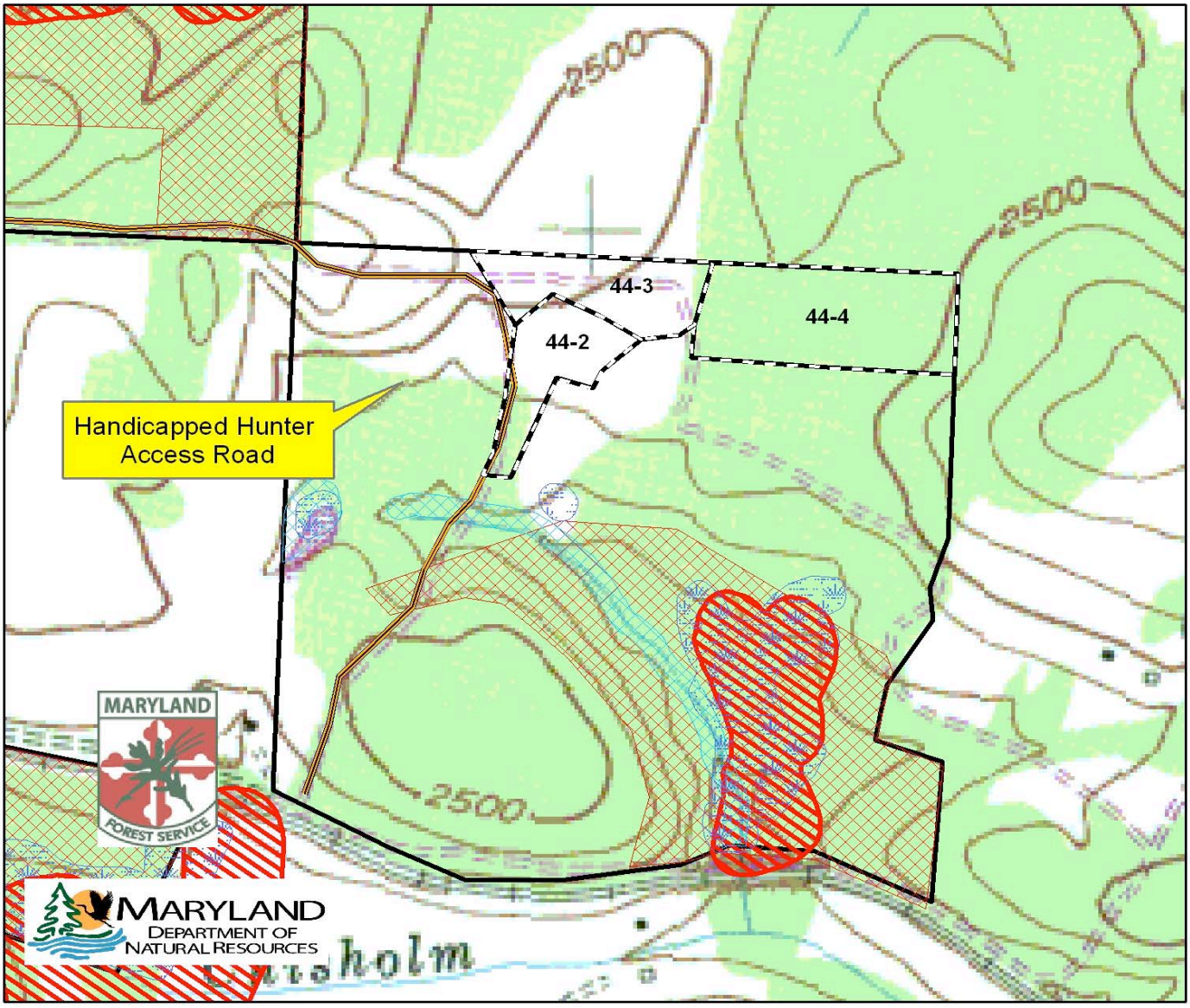
Water Resources: This relatively flat stand drains beyond its boundaries to an un-named tributary of Chisholm Run, within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF stream buffer areas

Soil Resources: Underlying soils include: 'Cookport and Ernest very stony silt loams'. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils, with moderate equipment limits because water table is close to the soil surface in winter and early in spring. Degree of slope ranges from 0-15% throughout the site. The site has very good productivity for woodland management, with a site index of 75-85 for upland oaks.

Management and Silvicultural Recommendations

The planned silvicultural treatment for this site is to salvage harvest this stand. All merchantable trees (hardwood and pine) will be cut during this salvage harvest of this poor conditioned stand. Contractor will be required to cut all trees down to 2" diameter to facilitate stump sprouting from the existing, poor formed hardwoods. While existing advanced regeneration is virtually absent, stump sprouting will slowly provide the beginning of a replacement hardwood stand on this site. This slow replacement will actually prolong the value of the desired early succession "soft edge" that was prescribed along the field/food plot edge in FY-15.

Compartment 44 Stand 2 FY-17



Approx. Acres.....4
Harvest Acres.....4
Forest Type.....Plantation
Basal Area.....137
BA AGS.....70
Stocking.....75
Growth Rate.....
Site Index.....65 for RP
Composition.....Red Pine 93%
. Black Cherry 7%

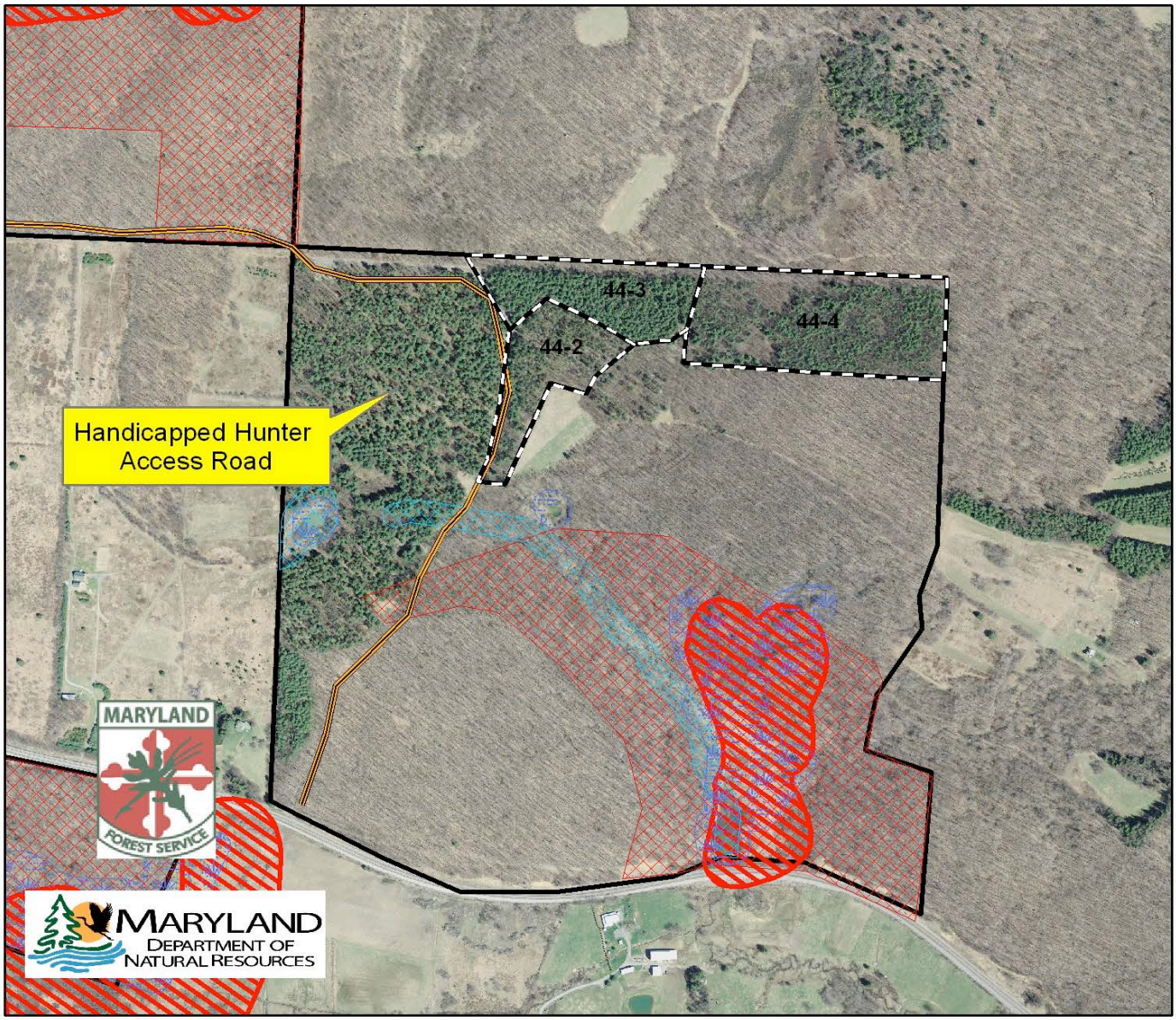
HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

79°27'30.666"W 39°24'56.835"N

Compartment 44 Stand 2 FY-17



Approx. Acres.....4
Harvest Acres.....4
Forest Type.....Plantation
Basal Area.....137
BA AGS.....70
Stocking.....75
Growth Rate.....
Site Index.....65 for RP
Composition.....Red Pine 93%
. Black Cherry 7%

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

79°27'30.666"W 39°24'56.835"N

COMPARTMENT 44 Stand 3 **FY-17**

Description/Resource Impact Assessment

Location: This area is part of the Kindness Demonstration Forest. The stand is located along the west side of the access road and borders the State Forest boundary on its north side within Compartment #44, Stand 3 of the Garrett State Forest.

Forest Community Type and Condition: This 5-acre site contains a 50 year old White Pine plantation, with an average merchantable diameter of 15 inches. The over story contains White Pine (98%) with a small Black Cherry pole component. This stand is overstocked at 115% relative density, and contains 203 sq. ft. of BA/acre. The stand is well overdue for a thinning as evidenced by the relatively small live crown ratio of the trees. Though the stand is stressed from overcrowding, there is sufficient acceptable growing stock to provide for a fully stocked stand. As expected in overstocked plantations such as this, there is little to no regeneration present in the understory.

Interfering Elements: Deer browse pressure in this area is estimated to be moderate to high and must be addressed when considering regeneration efforts on this site. Interfering understory plant competition is sufficient to cause significant interference with regeneration efforts; 83% of the site contains some form of interfering plant competition. Low woody interference in the form of creeping Dewberry is found throughout 33% of this small stand. Problematic levels of fern and grass are found on 67% of site. Non-native invasive species (NNIS) were not observed in the stand.

Historic Conditions: State Forest records show no history of harvest since the State's acquisition. No evidence of recent fire activity was observed during the recon.

Rare, Threatened and Endangered Species: At this time, the Forest Manager knows of no rare, threatened or endangered species on the site, or that would be impacted by the silvicultural prescription

.

Habitats and Species of Management Concern:

At this time, the Forest Manager knows of no critical habitats or species of management concern on the site, or that would be impacted by the silvicultural prescription.

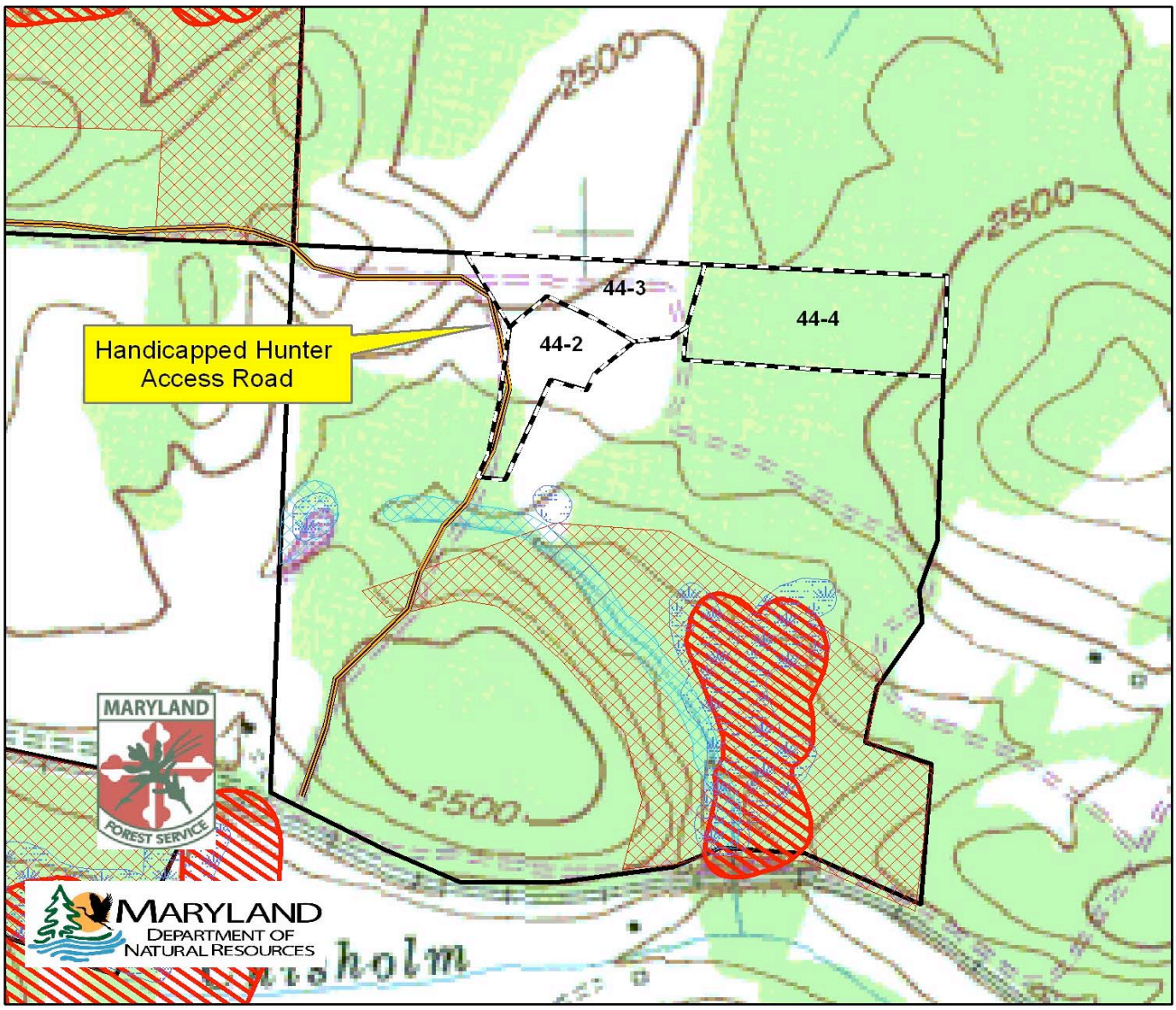
Water Resources: This relatively flat stand drains beyond its boundaries to an un-named tributary of Chisholm Run, within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF stream buffer areas

Soil Resources: Underlying soils include: 'Cookport and Ernest very stony silt loams'. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils, with moderate equipment limits because water table is close to the soil surface in winter and early in spring. Degree of slope ranges from 0-15% throughout the site. The site has very good productivity for woodland management, with a site index of 75-85 for upland oaks.

Management and Silvicultural Recommendations

The planned silvicultural treatment for this site is to thin this stand. As this stand is showing signs of stress due to its prolonged overcrowding, this thinning will target removal of approximately 25% of the basal area and volume in this first entry into the stand, making a light thinning so as not to further shock this already stressed stand. This harvest will remove approximately 50-60 sq. ft. of BA/acre, and will yield approximately 5,000 Bd. Ft. /acre. This thinning will increase the health and vigor of the stand, by reducing stress caused by overcrowding.

Compartment 44 Stand 3 FY-17



Approx. Acres.....5
Harvest Acres.....4.5
Forest Type.....Plantation
Basal Area.....203
BA AGS.....142
Stocking.....115%
Growth Rate.....
Site Index.....65 for WP
Composition.....White Pine 98%
. Black Cherry 2%

HCVF Components

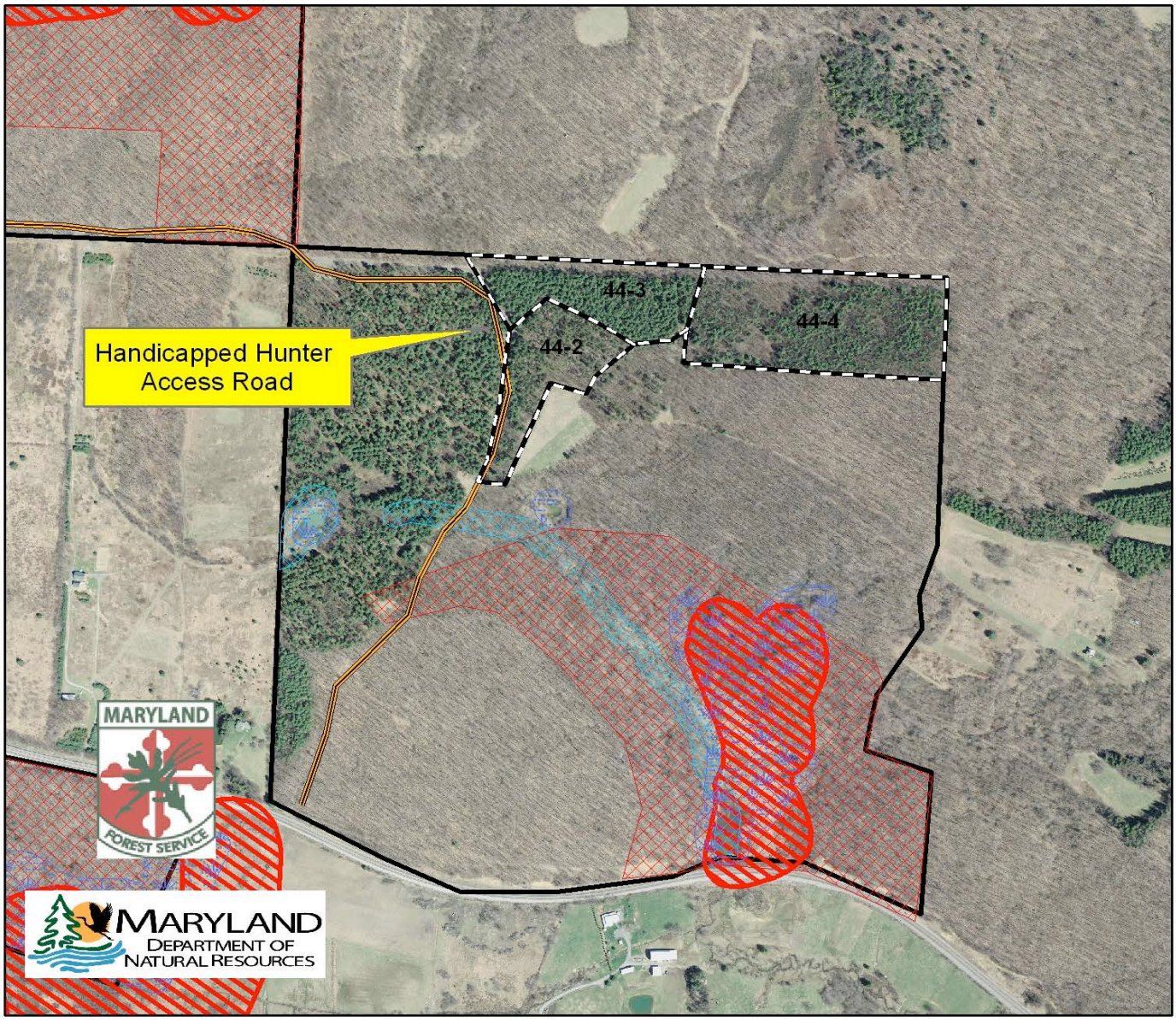
- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

N

79°27'30.666"W 39°24'56.835"N

Compartment 44 Stand 3 FY-17



Approx. Acres.....5
Harvest Acres.....4.5
Forest Type.....Plantation
Basal Area.....203
BA AGS.....142
Stocking.....115%
Growth Rate.....
Site Index.....65 for WP
Composition.....White Pine 98%
. Black Cherry 2%

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

N

79°27'30.666"W 39°24'56.835"N

COMPARTMENT 44 Stand 4 **FY-17**

Description/Resource Impact Assessment

Location: This area is part of the Kindness Demonstration Forest. The stand is located along the west side of the access road, in the extreme north east corner of Compartment #44, Stand 4 of the Garrett State Forest.

Forest Community Type and Condition: This 10-acre site contains a 45-50 year old White Pine plantation, with an average merchantable diameter of 11 inches. The over story contains White Pine (65%) with Black Cherry pole component making up another 35% of the stand. This stand is overstocked at 109% relative density and contains 173 sq. ft. of BA/acre. The stand is well overdue for a thinning as evidenced by the relatively small live crown ratio of the trees. Though the stand is stressed from overcrowding, there is sufficient acceptable growing stock to provide for a fully stocked stand. As expected in overstocked plantations such as this, there is little to no regeneration present in the understory.

Interfering Elements: Deer browse pressure in this area is estimated to be moderate to high and must be addressed when considering regeneration efforts on this site. Interfering understory plant competition is sufficient to cause significant interference with regeneration efforts; 75% of the site contains some form of interfering plant competition. Low woody interference in the form of creeping Dewberry is found throughout 63% of this stand. Problematic levels of fern and grass are found on only 13% of site. The non-native invasive species, (NNIS) Japanese Barberry was observed in the stand, though in very minor amounts. Following treatments, the site should be monitored for increases in this NNIS.

Historic Conditions: State Forest records show no history of harvest since the State's acquisition. No evidence of recent fire activity was observed during the recon.

Rare, Threatened and Endangered Species: At this time, the Forest Manager knows of no rare, threatened or endangered species on the site, or that would be impacted by the silvicultural prescription

.

Habitats and Species of Management Concern:

At this time, the Forest Manager knows of no critical habitats or species of management concern on the site, or that would be impacted by the silvicultural prescription.

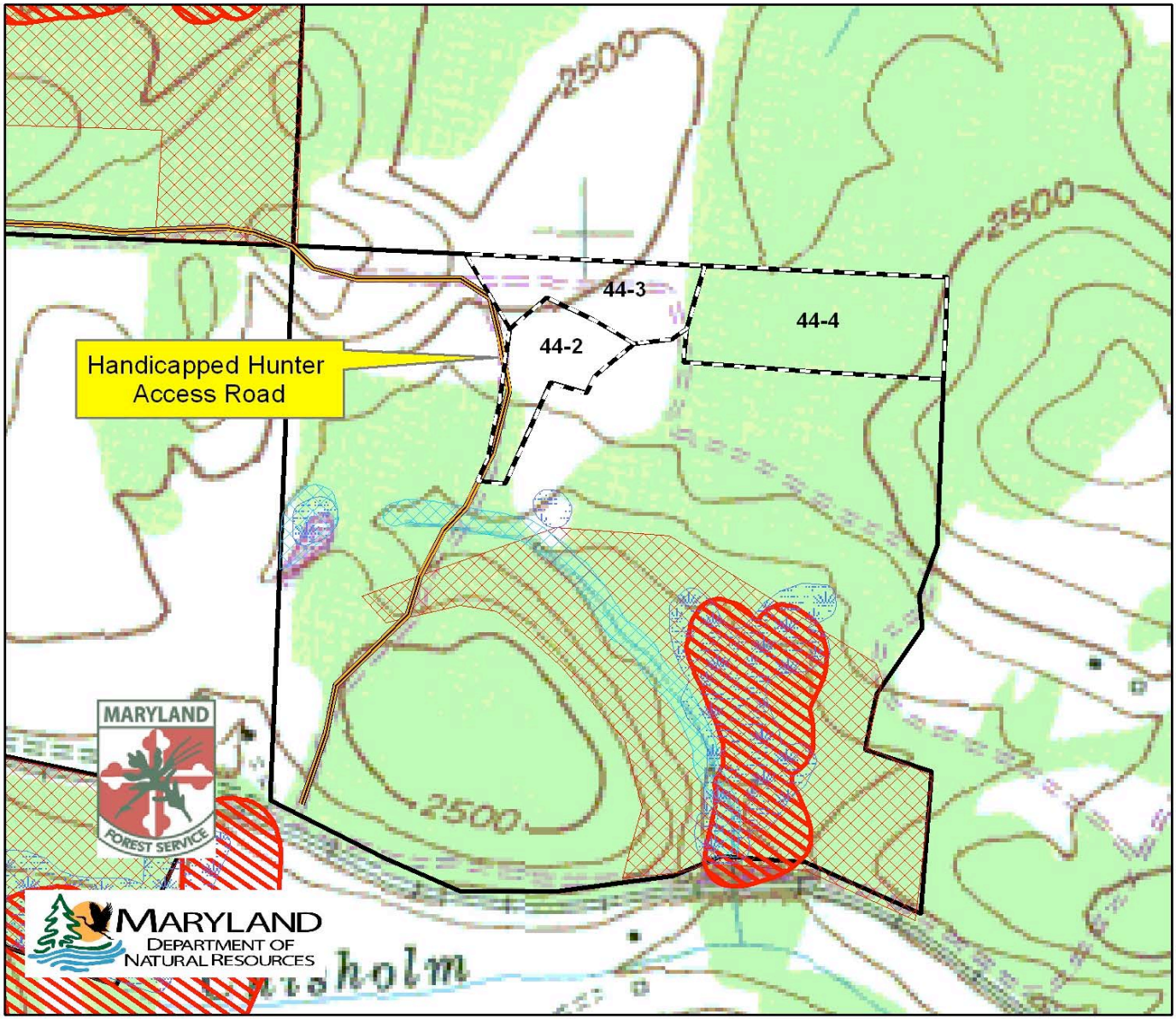
Water Resources: This relatively flat stand drains beyond its boundaries to an un-named tributary of Chisholm Run, within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF stream buffer areas

Soil Resources: Underlying soils include: 'Cookport and Ernest very stony silt loams'. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils, with moderate equipment limits because water table is close to the soil surface in winter and early in spring. Degree of slope ranges from 0-15% throughout the site. The site has very good productivity for woodland management, with a site index of 75-85 for upland oaks.

Management and Silvicultural Recommendations

The planned silvicultural treatment for this site is to thin this stand. As this stand is showing signs of stress due to its prolonged overcrowding, this thinning will target removal of approximately 25% of the basal area and volume in this first entry into this stand, making a light thinning so as not to further shock this already stressed stand. This harvest will remove approximately 45 sq. ft. of BA/acre, and will yield approximately 10 cords /acre. This thinning will increase the health and vigor of the stand by reducing stress caused by overcrowding.

Compartment 44 Stand 4 FY-17



Approx. Acres.....11
Harvest Acres.....7
Forest Type.....Plantation
Basal Area.....173
BA AGS.....59
Stocking.....109
Growth Rate.....2.2%
Site Index.....65 for WP
Composition.....White Pine 65%
. Black Cherry 35%

0 220 440 880 1,320 1,760
Feet

HCVF Components

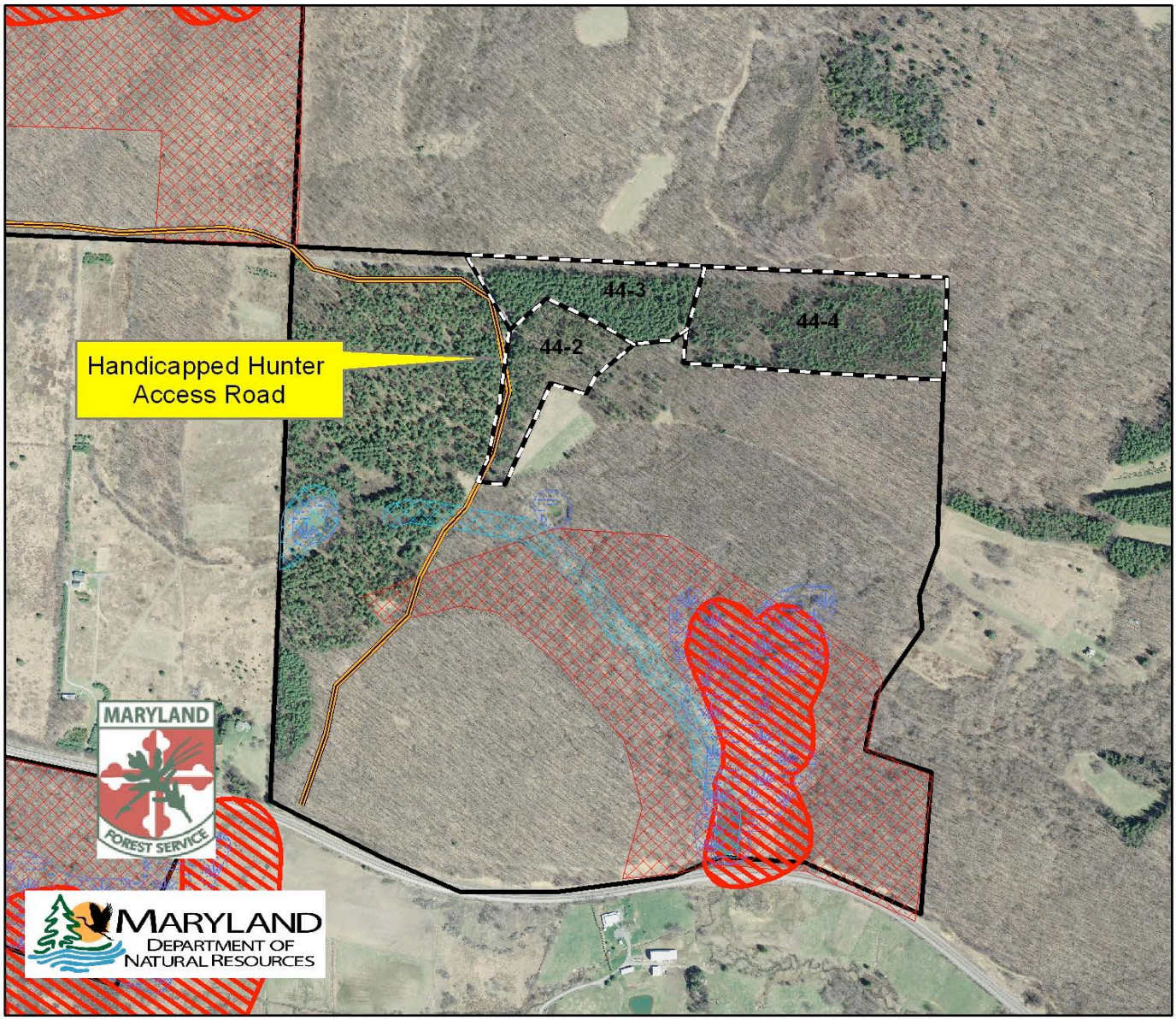
- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

Wetlands w/50' Buffer

79°27'30.666"W 39°24'56.835"N

N

Compartment 44 Stand 4 FY-17



Approx. Acres.....11
Harvest Acres.....7
Forest Type.....Plantation
Basal Area.....173
BA AGS.....59
Stocking.....109
Growth Rate.....2.2%
Site Index.....65 for WP
Composition.....White Pine 65%
. Black Cherry 35%

0 220 440 880 1,320 1,760
Feet

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

79°27'30.666"W 39°24'56.835"N

N

COMPARTMENT 44 Stand 8 **FY-17**

Description/Resource Impact Assessment

Location: This area is part of the Kindness Demonstration Forest. Stand 8 is located in the northeast corner of Compartment #44 of the Garrett State Forest.

Forest Community Type and Condition: This 9-acre site contains an immature mixed oak stand that is approximately 85-100 years old, with an average merchantable diameter of 15 inches. The over story contains White Oak (55%), Scarlet Oak (30%), and Red Maple (5%). This stand is overstocked at 133% relative density, and contains 146 sq. ft. of BA/acre. The understory contains moderate amounts of advanced regeneration with 20% of the stand containing competitive seedlings suitable for release, and another 50% of the stand containing established seedlings available for nurturing into a competitive condition. Though only 10% of the stand contains sufficient established oak seedlings at this time.

Interfering Elements: Deer browse pressure in this area is estimated to be moderate to high and must be addressed when considering regeneration efforts on this site. Interfering understory plant competition is sufficient to cause significant interference with regeneration efforts; low woody interference in the form of creeping Dewberry is found throughout 50% of this stand and 30% of the stand contains tall woody interference primarily in the form of undesirable / storm damaged Red Maple saplings. Non-native invasive species (NNIS) were not observed in the stand.

Historic Conditions: State Forest records show no history of harvest since the State's acquisition. No evidence of fire or insect pest activity was observed during the recon.

Rare, Threatened and Endangered Species: At this time, the Forest Manager knows of no rare, threatened or endangered species on the site, or that would be impacted by the silvicultural prescription

.

Habitats and Species of Management Concern:

The stand sits upslope of an ESA associated with a Wetland of Special State Concern, which supports various Threatened and Endangered Plants and animals including Buxbaums Sedge and the Alder Flycatcher. At this time, the Forest Manager knows of no critical habitats or species of management concern on the site, or that would be impacted by the silvicultural prescription.

Water Resources: This ridge top stand drains beyond its boundaries to unnamed tributaries of Chisholm Run, within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF stream buffer areas

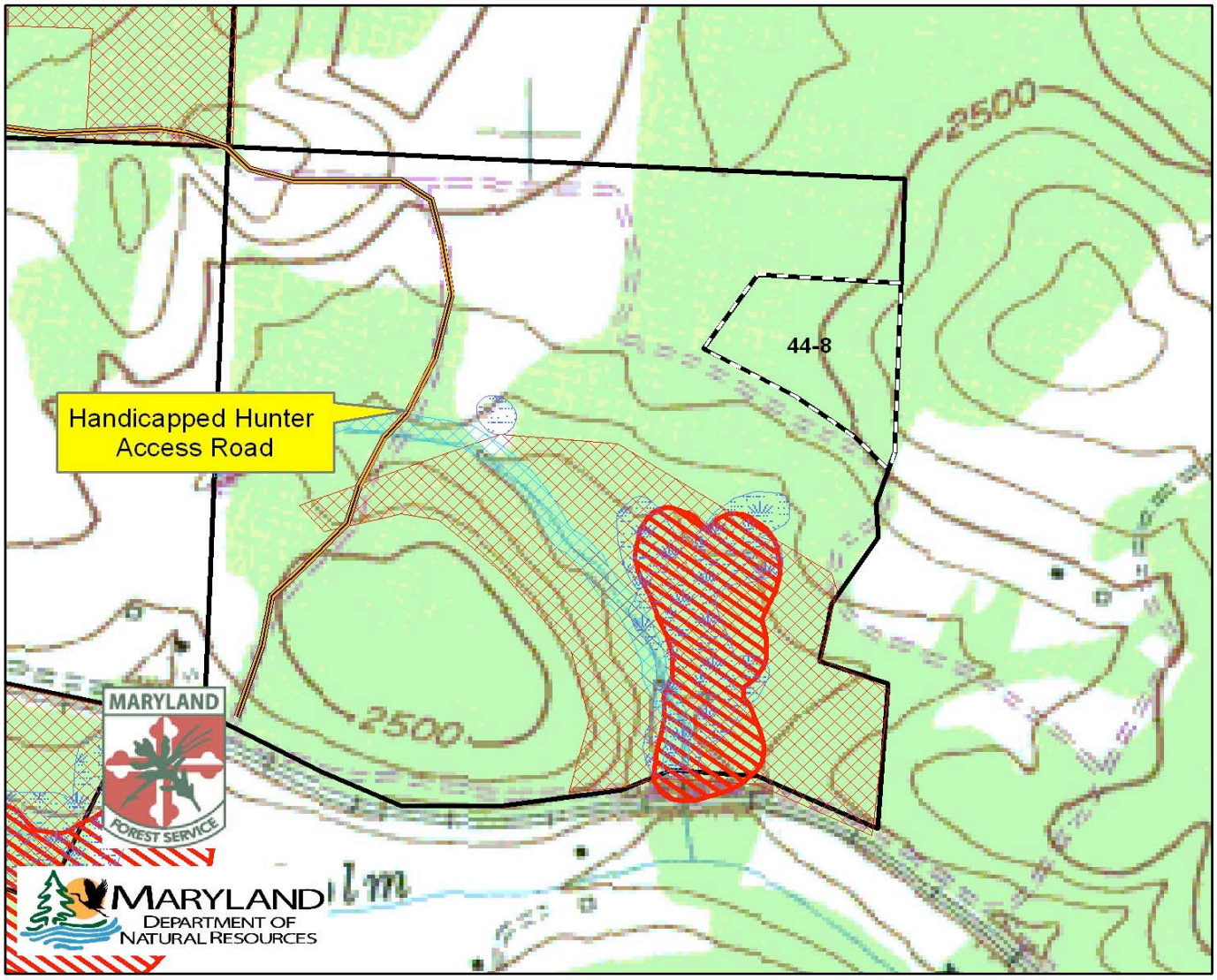
Soil Resources: Underlying soils are mapped as 'Dekalb and Gilpin very stony loams'. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils. Degree of slope ranges from 0-25% throughout the site. Equipment limits range from slight to moderate. Hazard of erosion is slight to moderate. The site has good productivity for woodland management, with a site index of 65-75 for upland oaks.

Management and Silvicultural Recommendations

The planned silvicultural treatment for this site is to begin to regenerate the stand using a 2-stage shelterwood system. The first stage of this 2-stage system will involve a commercial thinning with the primary objective of stimulating growth of the existing established seedling stock, bringing them up into a more competitive size class suitable for later release. This harvest will be carried out as a crown thinning removing approximately 40 sq.ft. BA/acre, and yielding approximately 2,500-3,000 bf.ft. /ac. This thinning will focus on removal of unacceptable growing stock along with a significant amount of the Scarlet Oak which does not seem to be doing well as it nears maturity in this general area. Where available, 4-6 cavity trees/acre will be retained for dispersed, long term retention.

Following this harvest, the stand will be monitored over the next 5-8 years. Once the established regeneration gains competitive size and can provide a fully stocked stand, the second stage of this 2-stage regeneration system will be carried out as a release cut or final removal.

Compartment 44 Stand 8 FY-17



Approx. Acres	9
Harvest Acres	9
Forest Type	Mixed Oak
Basal Area	146
BA AGS	76
Stocking	133
Growth Rate	1.9%
Site Index	55 for WO
Composition	White Oak 55%
.	Scarlet Oak 30%
.	Red Maple 5%

HCVF Components

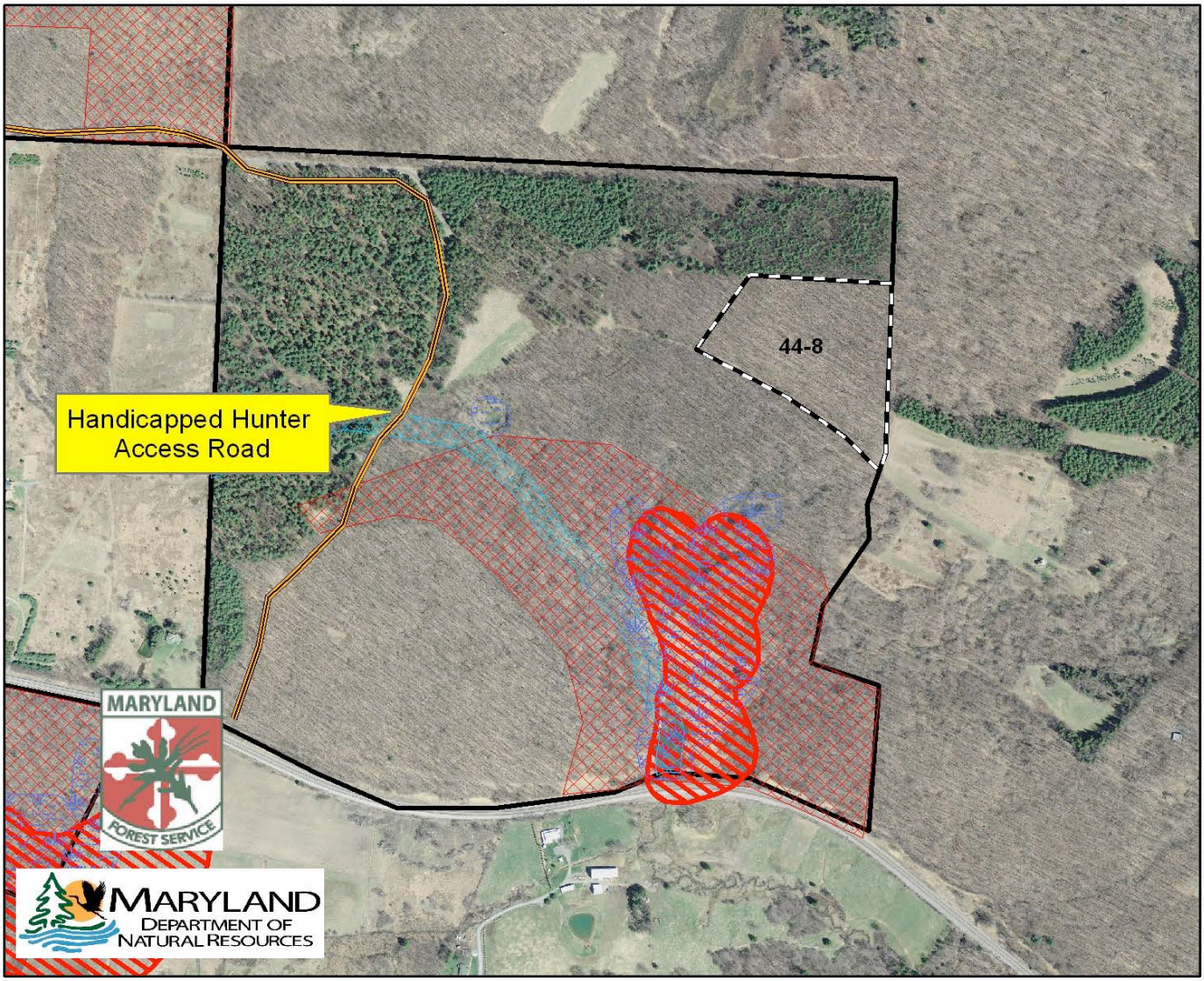
- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

79°27'17.42"W 39°24'51.18"N

Compartment 44 Stand 8 FY-17



Approx. Acres	9
Harvest Acres	9
Forest Type	Mixed Oak
Basal Area	146
BA AGS	76
Stocking	133
Growth Rate	1.9%
Site Index	55 for WO
Composition	White Oak 55%
.	Scarlet Oak 30%
.	Red Maple 5%

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

79°27'17.42"W 39°24'51.18"N

COMPARTMENT 44 Stand 10 **FY-17**

Description/Resource Impact Assessment

Location: This area is part of the Kindness Demonstration Forest. Stand 10 is located in the southwest corner of Compartment #44, of the Garrett State Forest.

Forest Community Type and Condition: This 14-acre site contains an immature mixed oak stand that is approximately 85-100 years old, with an average merchantable diameter of 16 inches. The over story contains White Oak (56%), Black Cherry (16%) and Scarlet Oak (12%). This stand is overstocked at 94% relative density and contains 120 sq. ft. of BA/acre. There is very little desirable regeneration present in the understory, due in part to the amount of interfering elements noted below.

Interfering Elements: Deer browse pressure in this area is estimated to be moderate to high and must be addressed when considering regeneration efforts on this site. Interfering understory plant competition is sufficient to cause significant interference with regeneration efforts; low woody interference in the form of creeping Dewberry is found throughout 86% of this stand. Problematic levels of fern and grass are found on 14% of site, and 41% of the stand contains tall woody interference primarily in the form of undesirable / storm damaged Red Maple saplings. Non-native invasive species (NNIS) were not observed in the stand.

Historic Conditions: State Forest records show no history of harvest since the State's acquisition. No evidence of fire or insect pest activity was observed during the recon.

Rare, Threatened and Endangered Species: At this time, the Forest Manager knows of no rare, threatened or endangered species on the site, or that would be impacted by the silvicultural prescription

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Habitats and Species of Management Concern:

The stand fronts on an ESA associated with a Wetland of Special State Concern which supports various Threatened and Endangered Plants and animals including Buxbaums Sedge and the Alder Flycatcher. At this time, the Forest Manager knows of no critical habitats or species of management concern on the site, or that would be impacted by the silvicultural prescription.

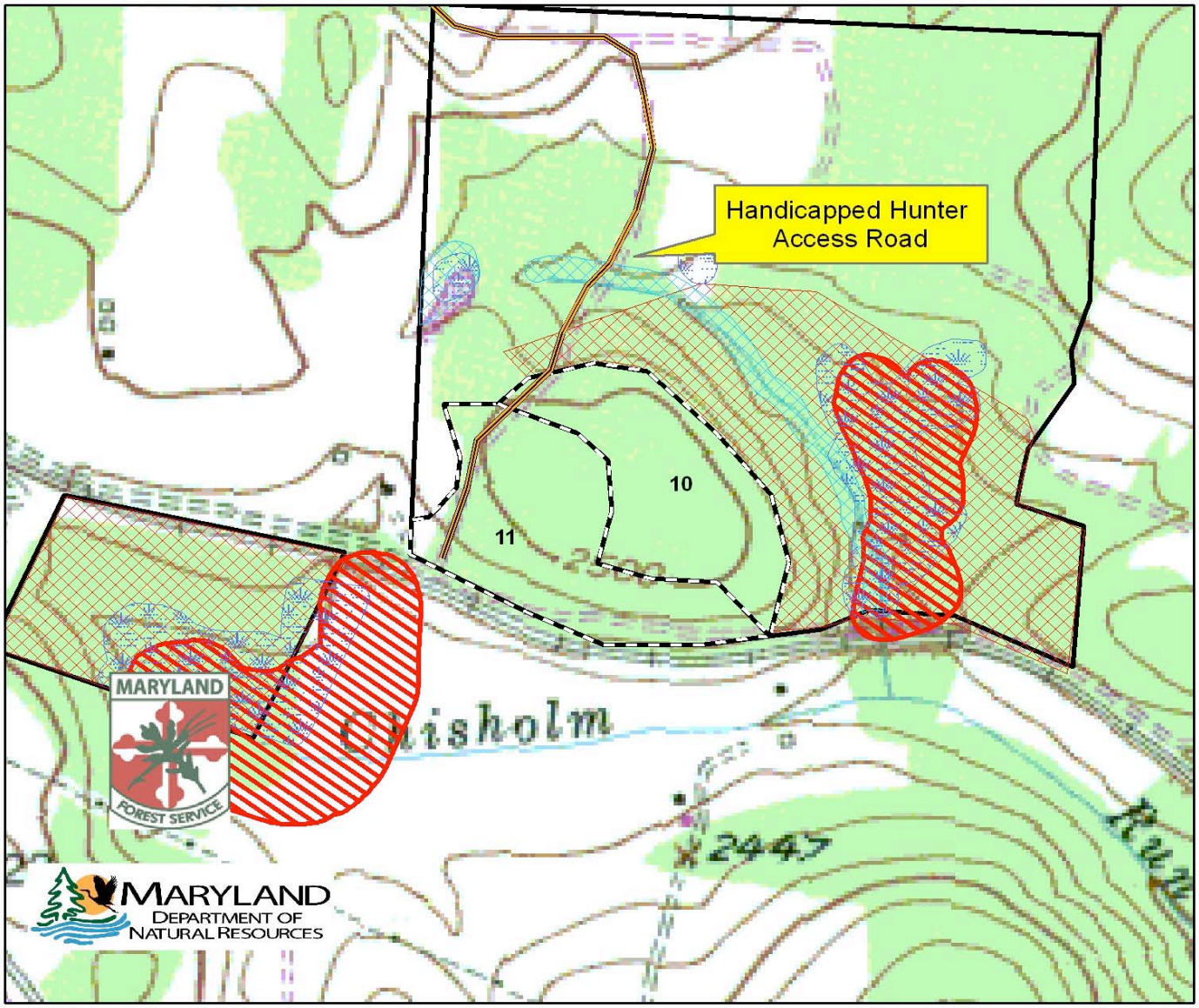
Water Resources: This northeast facing slope drains beyond its boundaries to an un-named tributary of Chisholm Run, within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF stream buffer areas

Soil Resources: Underlying soils are mapped as 'Dekalb and Gilpin very stony loams'. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils. Degree of slope ranges from 0-25% throughout the site. Equipment limits range from slight to moderate. Hazard of erosion is slight to moderate. The site has good productivity for woodland management with a site index of 65-75 for upland oaks.

Management and Silvicultural Recommendations

As established regeneration is lacking in this nearly mature overstocked stand, the planned silvicultural treatment for this site is to thin the stand. The objective of this thinning is simply to reduce stocking levels in order to lessen competition among the remaining trees, thereby increasing the health and vigor of the residual stand. This thinning will focus on removal of unacceptable growing stock along with a significant amount of the Scarlet Oak which does not seem to be doing well as it nears maturity in this general area. This thinning will be carried out as a crown thinning, removing approximately 40-50 sq.ft.of BA/acre, reducing stocking to approximately 65% relative density and yielding approximately 2,500-3,000 Bd. Ft. /acre.

Compartment 44 Stand 10 FY-17



Approx. Acres	14
Harvest Acres	14
Forest Type	Mixed Oak
Basal Area	120
BA AGS	66
Stocking	94%
Growth Rate	1.7%
Site Index	55 for WO
Composition	.White Oak 56%
.	Black Cherry 16%
.	Scarlet Oak 12%

HCVF Components

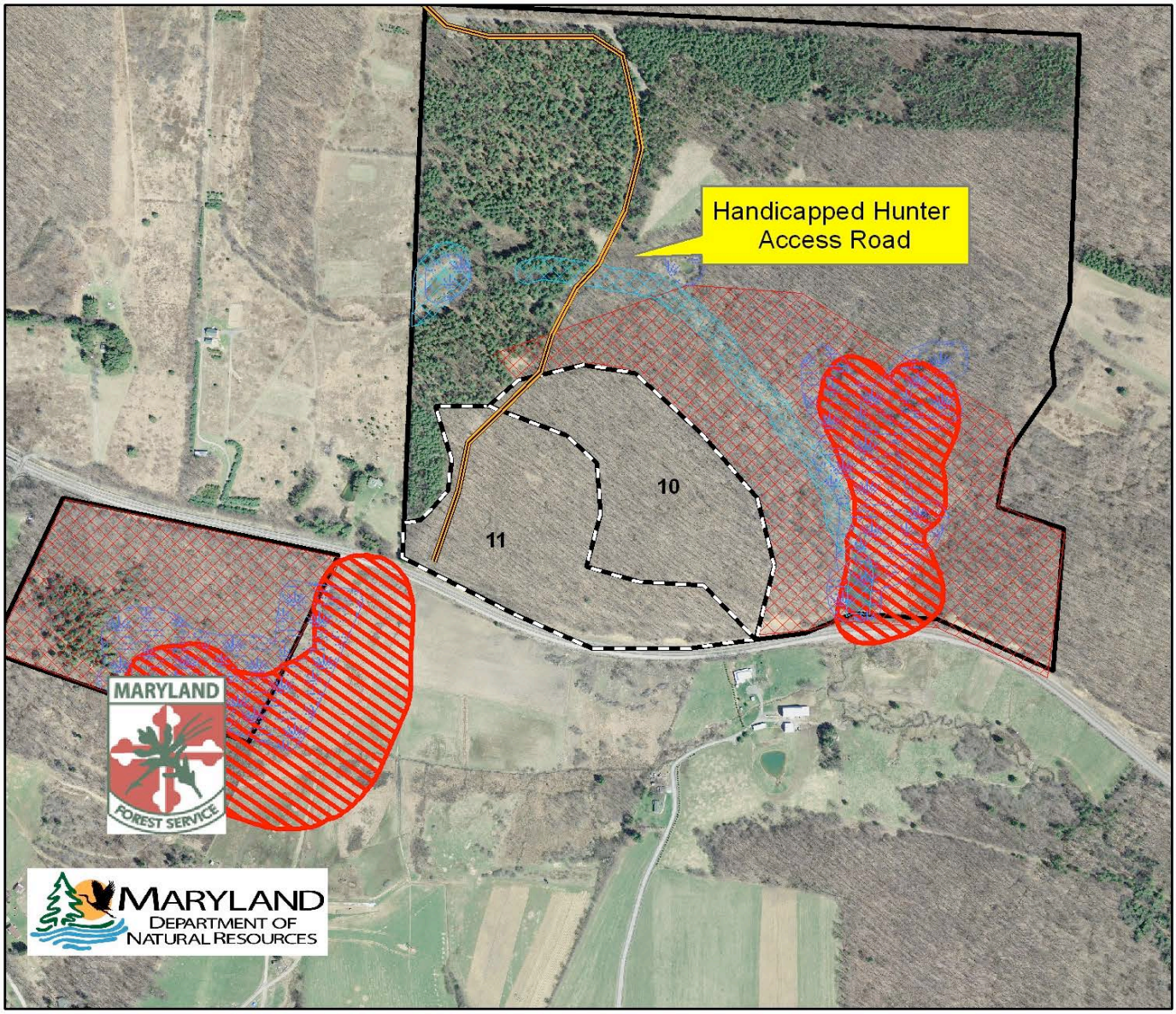
- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

N

79°27'38.555"W 39°24'40.658"N

Compartment 44 Stand 10 FY-17



Approx. Acres	14
Harvest Acres	14
Forest Type	Mixed Oak
Basal Area	120
BA AGS	66
Stocking	94%
Growth Rate	1.7%
Site Index	55 for WO
Composition	.White Oak 56%
.	Black Cherry 16%
.	Scarlet Oak 12%

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

N

79°27'38.555"W 39°24'40.658"N

COMPARTMENT 44 Stand 11 **FY-17**

Description/Resource Impact Assessment

Location: This area is part of the Kindness Demonstration Forest. Stand 11 is located in the southwest corner of Compartment #44, of the Garrett State Forest.

Forest Community Type and Condition: This 12-acre site contains an immature mixed oak stand that is approximately 85-100 years old, with an average merchantable diameter of 16 inches. The over story contains White Oak (62%), Scarlet Oak (25%), and Black Cherry (7%). This stand is overstocked at 110% relative density and contains 123 sq. ft. of BA/acre. The well developed understory contains significant amounts of advanced regeneration; with 42% of the stand containing competitive seedlings suitable for release (25 of the 42 being oak), and 75% of the stand containing established seedlings available for nurturing into a competitive condition (again with 25 of the 75 being oak).

Interfering Elements: Deer browse pressure in this area is estimated to be moderate to high and must be addressed when considering regeneration efforts on this site. Interfering understory plant competition is sufficient to cause significant interference with regeneration efforts; low woody interference in the form of creeping Dewberry is found throughout 25% of this stand. Problematic levels of fern and grass are found on 17% of the site, and 25% of the stand contains tall woody interference primarily in the form of undesirable / storm damaged Red Maple saplings. Non-native invasive species (NNIS) were not observed in the stand.

Historic Conditions: State Forest records show no history of harvest since the State's acquisition. No evidence of fire or insect pest activity was observed during the recon.

Rare, Threatened and Endangered Species: At this time, the Forest Manager knows of no rare, threatened or endangered species on the site, or that would be impacted by the silvicultural prescription

.

Habitats and Species of Management Concern:

The stand fronts on an ESA associated with a Wetland of Special State Concern which supports various Threatened and Endangered Plants and animals including Buxbaums Sedge and the Alder Flycatcher. At this time, the Forest Manager knows of no critical habitats or species of management concern on the site, or that would be impacted by the silvicultural prescription.

Water Resources: This ridge top stand drains beyond its boundaries to Chisholm Run, within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF stream buffer areas

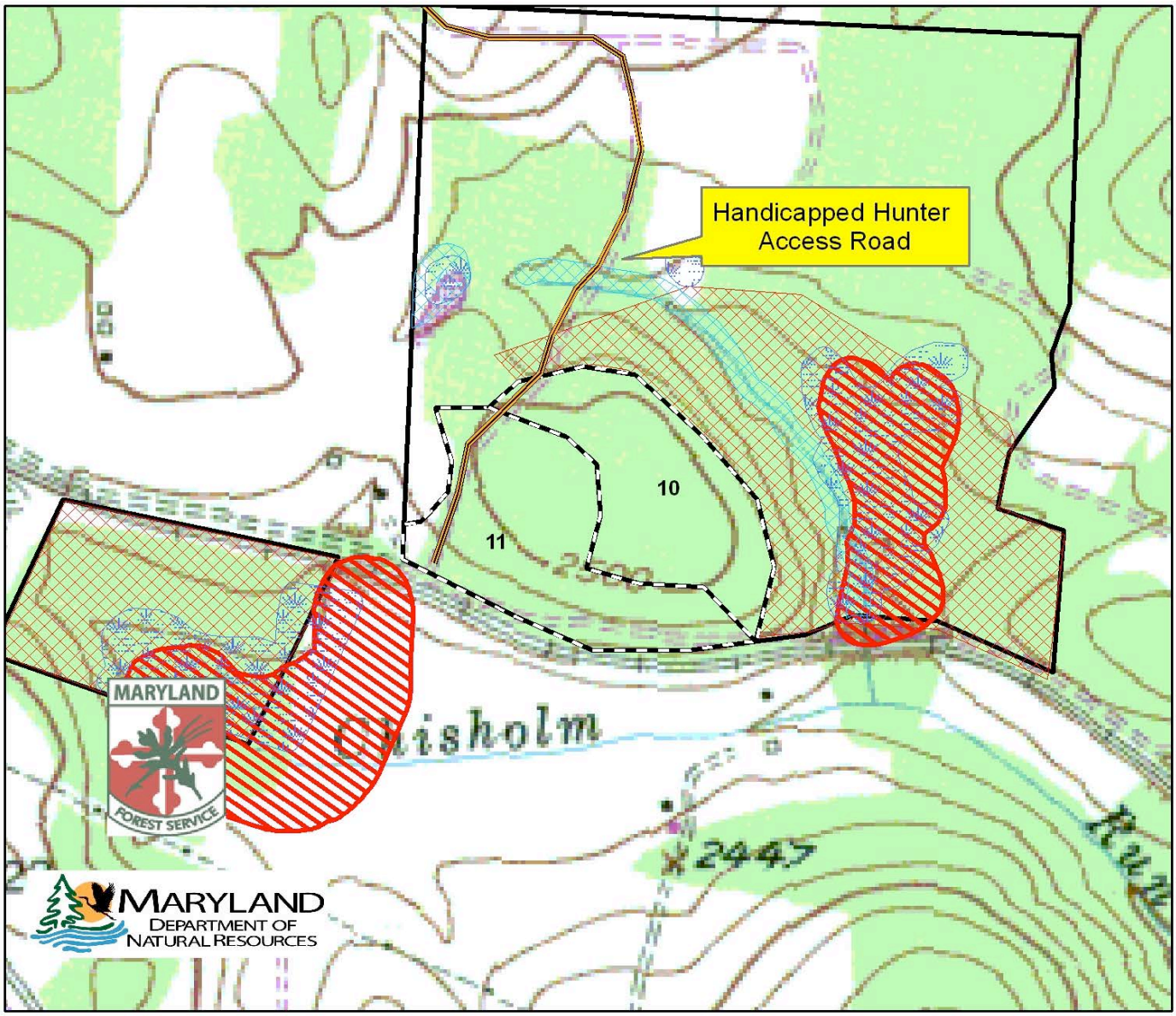
Soil Resources: Underlying soils are mapped as 'Dekalb and Gilpin very stony loams'. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils. Degree of slope ranges from 0-25% throughout the site. Equipment limits range from slight to moderate. Hazard of erosion is slight to moderate. The site has good productivity for woodland management with a site index of 65-75 for upland oaks.

Management and Silvicultural Recommendations

The planned silvicultural treatment for this site is to begin to regenerate the stand using a 2-stage shelterwood system. The first stage of this 2-stage system will involve a commercial thinning with the primary objective of stimulating growth of the existing established seedling stock bringing them up into a more competitive size class suitable for later release. This harvest will be carried out as a crown thinning removing approximately 40 sq.ft. BA/acre, and yielding approximately 2,500-3,000 bf.ft. /ac. This thinning will focus on removal of unacceptable growing stock along with a significant amount of the Scarlet Oak which does not seem to be doing well as it nears maturity in this general area. Where available, 4-6 cavity trees/acre will be retained for dispersed, long term retention.

Following this harvest, the stand will be monitored over the next 5-8 years. Once the established regeneration gains competitive size and can provide a fully stocked stand, the second stage of this 2-stage regeneration system will be carried out as a release cut or final removal.

Compartment 44 Stand 11 FY-17



Approx. Acres.....17
Harvest Acres.....12
Forest Type.....Mixed Oak
Basal Area.....123
BA AGS.....66
Stocking.....110%
Growth Rate.....2.4%
Site Index.....55 for WO
Composition.....White Oak 61%
. Scarlet Oak 25%
. Black Cherry 7%

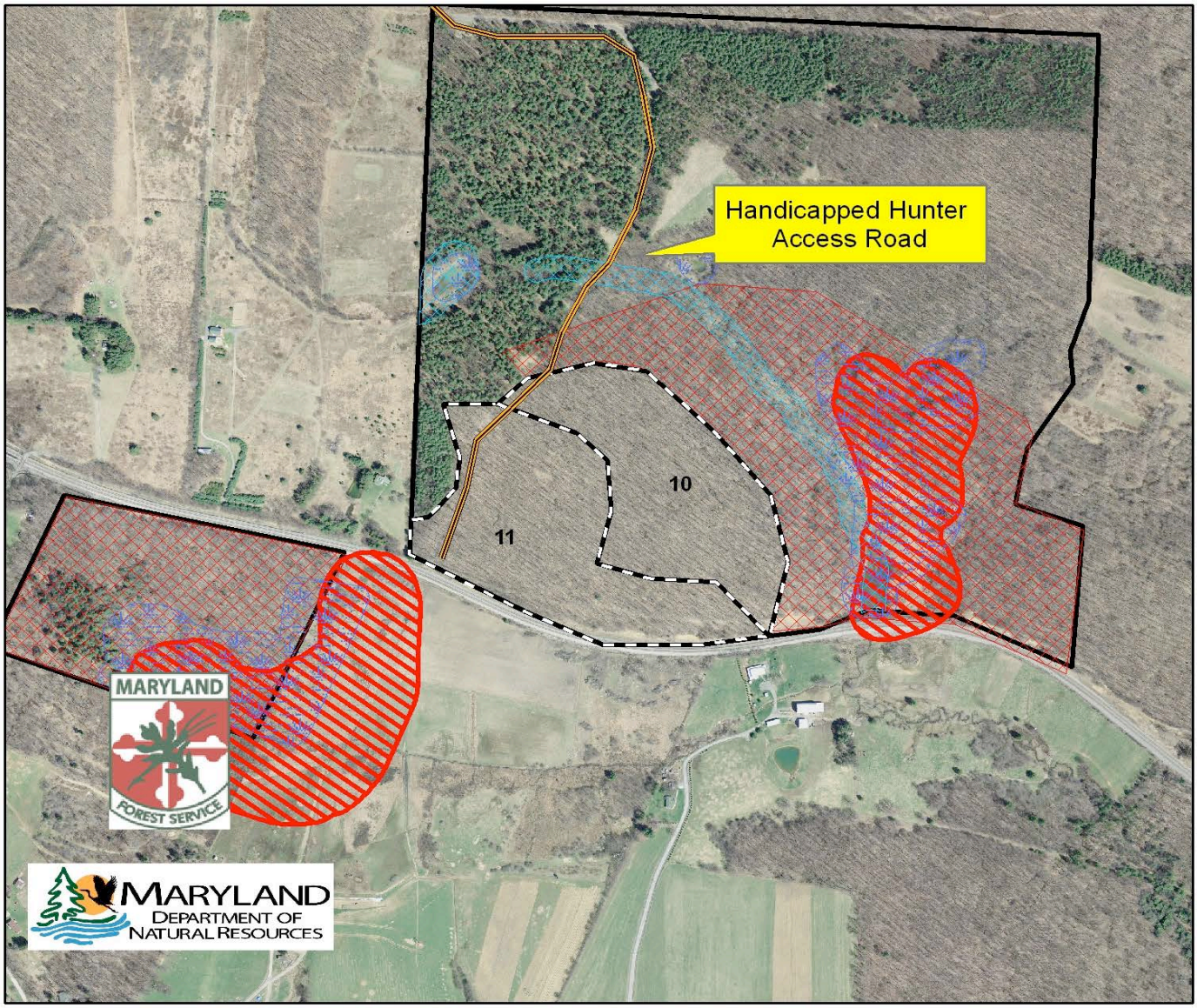
HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

79°27'38.555"W 39°24'40.658"N

Compartment 44 Stand 11 FY-17



Approx. Acres.....17
Harvest Acres.....12
Forest Type.....Mixed Oak
Basal Area.....123
BA AGS.....66
Stocking.....110%
Growth Rate.....2.4%
Site Index.....55 for WO
Composition.....White Oak 61%
. Scarlet Oak 25%
. Black Cherry 7%

HCVF Components

- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer
- Wetlands w/50' Buffer

0 220 440 880 1,320 1,760 Feet

79°27'38.555"W 39°24'40.658"N

XI. Operational Management and Budget Summary

A. INTRODUCTION

This section of the plan is designed to cover the annual cost and revenues associated with the operational management of Potomac-Garrett State Forest (PGSF). It is the Department's intent that all revenues generated from PGSF will be used to pay for the management and operation of the Forest. The numbers expressed in this section are only estimates and averages of annual expenses and revenues. These numbers will fluctuate each year based on management prescriptions, economic conditions and public use of the forest.

The following information is a breakdown of Funding Sources and Operational costs associated with PGSF. These figures are only estimates that are based on projected revenues and operational expenses. Yearly changes in timber markets and weather conditions can severely affect revenues. Operational expenses will vary from year to year. The numbers below are based on the budget request submitted for FY-2016, as the FY-17 request has not been finalized at the time this document is being released for initial review.

B. PGSF FUNDING SOURCES: Estimated - $1,377,649

1. *General Fund: $318,815*

State Forests in Maryland are funded from several sources. The first is the **General Fund**. This is money generated from taxes. It is used in State Forests primarily to fund classified (permanent) employee salaries and benefits.

2. *Special Fund: $199,648*

The second source is the **Special Fund**. This is money generated from revenue. The State Forests generate revenue through the collection of service fees, as well as the sale of timber and forest products as detailed within the annual work plan and deposited in the Department of Natural Resources Forest or Park Reserve Fund. These funds must be appropriated by the General Assembly through the annual budgeting process before being spent. It is used in State Forests to fund operational costs. The State Forest budget is prepared approximately one year before the beginning of the fiscal year in which it will be spent. The budget then goes through the legislative approval/review process along with all other State operating budgets. Once adopted, the budget goes into effect the first day of the fiscal year (July 1st). The Special Fund contribution of revenue generated by PGSF for FY-16 is expected to be $93,800.

3. ORV Fund: $0

In addition, PGSF is included in the Maryland Forest Service's Off Road Vehicle (ORV) Budget. This separate budget is based on **revenue generated from ORV permit sales** statewide and is allocated back to the State Forests through the budgeting process. ORV funds are a restricted special fund and can only be spent for ORV Trail related expenditures. In FY-13, PGSF received $12,000 from this fund source; with $0 budgeted in the past 2 years. The fund source (permit sales) has dwindled with the necessary closure of significant trails on the Savage River and Green Ridge State Forests. The limited funds available have been directed toward replacement trail developments on the Savage River and Green Ridge State Forests.

4. Other Funding

With limited budgets available for operations, State Forest staffs have been seeking alternative funding sources to carry out necessary maintenance and operations of the State Forest. Sources of potential funding include:

a. ***Forest Inventory Grants: $20,000***
Grant monies secured for the completion of the forest inventory project.

b. ***National Recreational Trail Grants: $39,150***
These grants are competitive and are generally limited to $30,000 per year per grant. The source of this funding is the Federal Department of Transportation administered through the Maryland Department of Transportation, State Highway Administration. These funds are designated reimbursable funds and are applied to various trail related projects as detailed in specific grant requests. For FY-16, PGSF has requested NRT Grant funds for:

Trail Shelter Restoration ($9,150)
Snaggy Mtn. Road/ORV Trail Resurfacing ($30,000)

c. ***Other Grants: $800,000 Capital Improvement Funds***
In January of 2012, the Governor announced approximately $23 million in the proposed capital budget for public land projects that will support nearly 300 jobs, help restore the environment, reduce energy usage, and improve services to visitors and citizens. Approximately $800,000 of this will be directed to improving the public access and trail network on Potomac-Garrett State Forests according to the plans outlined in the Recreation section of this work plan.

d. ***RGS/ SCI Partnership***

State Forest staff has regularly sought wildlife habitat improvement funds from various conservation organizations. For the past 3 years, the Ruffed Grouse Society has provided grants of $1,000-$1,600 each year for specific habitat work. Grant requests will be submitted for FY-17 to assist in carrying out the wildlife habitat work on the forest.

C. OPERATIONAL COST: **Estimated Annual Expenses - $561,949**

Operational expenses are those costs paid directly out of the PGSF operational budget by the State Forest Manager and vary based on approval of operational budgets. The Forest Manager prepares a proposed operational budget for the forest based on instructions provided approximately one year in advance of the fiscal year. The FY-2017 budget proposal was prepared in July of 2015.

1. Classified Salaries, Wages and Benefits: $318,815

This cost is associated with General Funds which are State tax revenues provided annually. These funds are used to pay PGSF Maryland Classified Employee Salaries responsible for the management, operations and maintenance of the State Forest.

2. Contractual Staffing: $52,467 does not include Contractual Inventory Staff

This cost is associated with contractual personnel hired to assist the classified staff in conducting work outlined in the annual work plan, managing the daily activities on the forest, including boundary line work, maintenance of trails, forest roads, maintaining primitive campsites, a public shooting range, overlooks, wildlife habitat areas, and implementing all maintenance, recreational, silviculture, and ecosystem restoration projects.

3. Special project staffing: $20,000

This cost is associated with contractual personnel hired to carryout special forest inventory projects associated with forest certification monitoring requirements.

4. Land Management and Operation Cost: $147,217

This includes expenses for office and field equipment, vehicles, gravel, signs, boundary paint, roadwork contracts and construction, trash removal from illegal dumping, boundary line work & surveying, tree planting, site preparation, control of invasive species, non-commercial thinning and other forest management practices. These costs vary greatly from year to year based on the activities identified in the Annual Work Plan.

5- County Payments: $23,450

These are revenue payments to local county governments which will vary every year. Payments are made on an annual basis to Garrett County based on 25% of the gross revenue generated from PGSF. These payments come out of revenue generated from timber sales and recreation. These payments are used to help the counties offset the loss in property tax revenues which are not paid on State owned lands.

The FY-17 Work Plan calls for the harvest of approximately 770,000 bd.ft. of hardwood and softwood saw timber, putting an estimated $197,188 worth of raw wood products out into the local markets. With the repeated Gypsy Moth infestations and weather related damages to the State Forests oak stands in the past decade, much of the silvicultural work laid out in this work plan is focused on initiating seedling development to better insure oak regeneration successes in future harvests. Much of the value of the harvests in the work plan will be directed back into the forest providing the essential investment in pre-harvest cultural work that will assure the long tern sustainable management of these important forest resources.

6. ORV Funds: $0

ORV funds are a restricted special fund and can only be spent for ORV Trail related expenditures.

D. SUMMARY

This is the general breakdown on Revenues and Operational Costs associated with the Potomac-Garrett State Forest. As described, these figures will vary from year to year. A more detailed picture on revenues and operational cost will be reviewed quarterly as the actual picture develops within implementation of Annual Work Plan and as operating budgets are approved.

(Appendix 1) - 2015 FSC Audit Action Plan

Forest Stewardship Council
Audit 2015 Summary

I. 2015.1 – Minor CAR

Non-Conformity *(or Background/ Justification in the case of Observations)*: Rates and methods of timber harvest are not leading to achieving desired conditions, or improving or maintaining health and quality across the FMU. Overstocked stands and stands that have been depleted or rendered to be below productive potential due to natural events, past management, or lack of management, are not being returned to desired stocking levels and composition at the earliest practicable time as justified in management objectives.

On Savage River, harvest levels have been at below planned acres to be treated in annual work plans for over 5 years. SILVAH information shows that sufficient regeneration is not being achieved. These oak forest types are older, overstocked, and at risk of becoming distressed, which could make establishing regeneration difficult. This is a significant deviation from planned activities described in Annual Work Plans that are to be implemented to achieve desired stocking and species compositions.

Corrective Action Request *(or Observation)*: Rates and methods of timber harvest shall lead to achieving desired conditions, and improve or maintain health and quality across the FMU. Overstocked stands and stands that have been depleted or rendered to be below productive potential due to natural events, past management, or lack of management, shall be returned to desired stocking levels and composition at the earliest practicable time as justified in management objectives.

II. 2015.2 – Opportunity For Improvement

Non-Conformity *(or Background/ Justification in the case of Observations)*:
When RTE species are present or assumed to be present, modifications in management are made in order to maintain, restore or enhance the extent, quality and viability of the species and their habitats. ***Conservation zones*** and/or ***protected areas*** are established for RTE species, including those S3 species that are considered rare, where they are necessary to maintain or improve the short and long-term viability of the species. Conservation measures are based on relevant science, guidelines and/or consultation with relevant, independent experts as necessary to achieve the conservation goal of the Indicator.

On the Eastern Shore, there are several Delmarva Bay restoration projects that will require consistent prescribed fire applications for the first three years after initial restoration activities followed by periodic natural or prescribed fire at certain intervals. FME currently has been hindered by weather and lack of human resources to keep up with these activities. Specialists involved in this project have determined that restoration objectives for this community of RTE plants cannot be met without fire. There is a similar situation with prescribed fire at Shale Barrens in the Western Region.

Corrective Action Request *(or Observation)*: FME should ensure that it implements prescribed fire activities in a timely manner to better ensure the success of its ecological restoration projects.

III.

IV. 2015.3 – Opportunity For Improvement

Non-Conformity *(or Background/ Justification in the case of Observations)*:
The transportation system, including design and placement of permanent and temporary haul roads, skid trails, recreational trails, water crossings and landings, is designed, constructed, maintained, and/or reconstructed to reduce short and long-term environmental impacts, habitat fragmentation, soil and water disturbance and cumulative adverse effects, while allowing for customary uses and use rights. This includes:

- access to all roads and trails (temporary and permanent), including recreational trails, and off-road travel, is controlled, as possible, to minimize ecological impacts;
- road density is minimized;
- erosion is minimized;
- sediment discharge to streams is minimized;
- there is free upstream and downstream passage for aquatic organisms;
- impacts of transportation systems on wildlife habitat and migration corridors are minimized;
- area converted to roads, landings and skid trails is minimized;
- habitat fragmentation is minimized; and
- unneeded roads are closed and rehabilitated.

FME has fallen behind in its road construction and maintenance upgrades or closures due to several factors outside of its control in the Western Region. There are several crossings and other drainage features in need of upgrades (or closures) in order to prevent negative impacts to soil and water.

Corrective Action Request *(or Observation)*: FME should consider accelerating the rate of implementation of its road construction and maintenance program to ensure continued conformance to the requirements of 6.5.d.

V. 2015.4 – Opportunity For Improvement

Non-Conformity (or Background/ Justification in the case of Observations):
Chemicals and application methods are selected to minimize risk to non-target species and sites. When considering the choice between aerial and ground application, the forest owner or manager evaluates the comparative risk to non-target species and sites, the comparative risk of worker exposure, and the overall amount and type of chemicals required.

Aerial spraying is done with a helicopter equipped with sensitive GPS equipment, which coupled with the machine's high maneuverability, helps to reduce the risk to non-target species and sites and virtually eliminates the risk of the pilot's exposure to chemicals.

On Wango Pines, during an aerial herbicide treatment the helicopter operator sprayed non-target species of concern (horse sugar and sheep laurel) that were clearly designated on maps and in GIS with buffers. The buffer was discussed with the forester in charge prior to the application, but apparently the pilot forgot about this sensitive site (note that others sensitive areas were avoided).

FME's contractor, Parker Forestry, has suggested some corrective actions to implement during the next application to eliminate this risk in the future (i.e., an onsite briefing just prior to spraying). Initial communication with the applicator on these corrective actions took place well prior to the FSC audit.

Corrective Action Request (or Observation):
FME should ensure that corrective actions are implemented to avoid risk to non-target species during aerial applications.

Non-Conformity *(or Background/ Justification in the case of Observations)*:
The management plan is kept up to date. It is reviewed on an ongoing basis and is updated whenever necessary to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances.

VI. 2015.5 – Opportunity For Improvement

FME has made some changes to its management plans in response to OBS 2014.10 that have been incorporated into some SFMPs, but not all.

Corrective Action Request *(or Observation)*: FME should ensure that its response to OBS 2014.10 is fully incorporated into management planning documents by the next audit.

Non-Conformity *(or Background/ Justification in the case of Observations)*:
The management plan is kept up to date. It is reviewed on an ongoing basis and is updated whenever necessary to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances.

FME has made some changes to its management plans in response to OBS 2014.10 that have been incorporated into some SFMPs, but not all.

Corrective Action Request *(or Observation)*: FME should ensure that its response to OBS 2014.10 is fully incorporated into management planning documents by the next audit.

(Appendix 2) - 2015 SFI Audit Action Plan

Sustainable Forestry Initiative
Audit 2015 Summary

Minor Non-Conformances identified in the 2015 audit:

Indicator 2.3.6 requires "Road construction and skidding layout to *minimize* impacts to soil *productivity*.

Minor Non-conformance: Administrative challenges continue to delay the implementation of necessary road repairs and upgrades.

Indicator 2.4.2 requires "Management to promote healthy and productive forest conditions to *minimize* susceptibility to damaging agents."

Minor Non-conformance: Management on the Savage River State Forest (SRSF) does not fully meet the requirement to promote healthy and productive forest conditions to *minimize* susceptibility to damaging agents. At SRSF many stands are stressed and/or overstocked; regeneration problems are apparent, with silvicultural analyses and silvicultural prescriptions developed through SILVAH-Oak indicating the need for treatments.

Three opportunities for improvement (OFIs) were identified in the 2015 audit:

Indicator 2.2.6. Requires the "Use of management practices appropriate to the situation, for example: d. designation of streamside and other needed buffer strips…" when applying herbicides. There is an Opportunity for Improvement in the implementation of the herbicide application program on the eastern forests to ensure that contractors implement the spray plan correctly.

Additional Notes: On the Wango Pines herbicide project the aerial spray contractor neglected to avoid a clearly-designated "no spray" buffer around a cluster of plant species (horse sugar and sheep laurel) that are on the watch list. The needed buffer was clearly identified on the project map and had been discussed with the forester in charge, but apparently the pilot forgot about this sensitive site (others sensitive areas were avoided). Protocols for future aerial herbicide application projects have been modified to require an on-site briefing just prior to application to remind the pilot of the sensitive areas.

Indicator 4.1.8. requires organizations to "Consider the role of natural disturbances, including the use of prescribed or natural fire where appropriate…" There is an Opportunity for Improvement regarding timely implementation of critical prescribed fire projects.

Indicator 15.1.1 requires a "System to review commitments, programs and procedures to evaluate effectiveness." There is an Opportunity for Improvement in the consistency and clarity of information in management reports (also provided to public on web sites) providing activity results (acres treated, etc.) in relation to plans.

(Appendix 3) – 10-Year Timber Harvest Summary Table

10 Year Timber Harvest Summary
for
Potomac-Garrett State Forest

Fiscal Year	***Planned harvest***	***Bd. Ft Vol. Harvested***	***Gross Value of sale***
2007	500 – 750 MBF	487,027	$ 288,133
2008	500 – 750 MBF*	793,002	$ 288,102
2009	500 MBF *	251,990	$ 29,578
2010	500 MBF *	168,131	$ 31,720
2011	500-600 MBF	465,653	$ 155,900
2012	500-600 MBF	534,679	$ 207,454
2013	500-600 MBF	331,052	$ 139,300
2014	300 MBF	298,221	$ 90,031
2015	552 MBF	492,401	$ 201,311
2016	634 MBF	542,534	$ 141,416

*salvage driven plans.

(Appendix 4) AWP Review Summary and Comments as received

Annual Work Plan Review Summary
Potomac Garrett State Forest
FY17 – AWP

The following is a summary of the comments received, and actions taken, in response to the three-part review of the Potomac-Garrett State Forest FY-17 Annual Work Plan. Comments were received through DNR ID Team review, State Forest Advisory Committee review, and public review of the internet posted AWP. (See copies of all written comments attached.) Items below are listed as they appear in the in FY-17 AWP table of contents:

Potomac- Garrett State Forest
FY-17 Annual Work Plan

Contents

ID Team Comments: No specific comments or concerns; A-D.
Citizens Advisory Committee Comments: No specific comments or concerns; A-D.
Public Comments: No specific comments received A-D.

- Final Proposals I-IV.A-D : Included as initially presented.

V. Maintenance and Operations

15 A. Maintenance & Management of Roads and Trails
15 B. Boundary Line Maintenance
16 C. Campground Operation and Maintenance
16 D. 3-D Archery Range Maintenance and Management
16 E. Interpretation and Education

ID Team Comments: No specific comments or concerns; A-E.
Citizens Advisory Committee Comments: No specific comments or concerns; A-E.
Public Comments: No specific comments received A-E.

- Final Proposals I-V.A-E : Included as initially presented.

VI. Recreation Proposals

17 A. Capital Improvement Fund Projects
1. Lostland Run Recreational Access Restoration Project

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

17 B. National Recreational Trail Grant Requests
1. Fire Tower Trail Resurfacing and Erosion Control
2. Hutton Handicapped Access Resurface and Erosion Control
3. Potomac/Garrett Trail Maintenance Labor

ID Team Comments: No specific comments or concerns VI.B.1-3.
Citizens Advisory Committee Comments: No specific comments or concerns VI.B.1-3.
Public Comments: No specific comments received VI.B.1-3.

- Final Proposals : Included as initially presented VI.B.1-3.

VII. Watershed Protection

23 Comp. 19 – Lostland Run HWA Mitigation/Red Spruce Planting Proposal (Extension FY-12 Proposal)

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

VIII. Ecosystem Restoration / Protection Projects

27 Non-Native Species Control

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

IX. Wildlife Management Proposals

30 Comp. 25 – Stand 14
(ESA Management / Thinning to Retain Habitat)

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

34 Comp. 40-Stand 1 (HCVF Thinning to Retain Habitat)

ID Team Comments: Heritage Biologist supports the planned thinning, recommends to retain the mountain laurel in understory and would like to be present during marking.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented with additional note to contact Heritage Biologist to assist with marking.

X. Silvicultural Proposals

38 **Comp. 7-Stand 5 (Pre-harvest Treatment of Interfering Veg.)**

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

42 Comp. 21a– Stands 1&2 (Seed cut)

ID Team Comments: Heritage Biologist noted that Pipe vine is found in adjacent ESA, and if found within harvest site, should be protected with retention /legacy trees. No other specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented along with note to protect pipe vine if observed within harvest site.

46 **Comp. 32-Stand 5 (Pre-harvest Treatment of Interfering Veg.)**

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.

Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

50 Comp. 32-Stand 6 (Pre-harvest Treatment of Interfering Veg.)

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

54 Comp. 32-Stand 7 (Pre-harvest Treatment of Interfering Veg.)

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

58 Comp. 32-Stand 33 (Thinning and Treatment of Interfering Veg.)

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

62 Comp. 33-Stand 11/ 34-1 (Thinning)

ID Team Comments: Initial map did not include hiking trail location. Discussion regarding consideration of trail use, aesthetic considerations, and trail maintenance to be taken into account, along with public safety/ notice to trail users including, possible detours or redirecting to other trails.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Map revised to show trail locations, proposal included as initially presented with additional reference to recreational trail use and management associated with harvest site.

66 Comp. 43 -Stand 5 (Shelterwood)

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

70 Comp. 43-Stand 7 (Regeneration Harvest)

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.

Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

74 Comp. 44-Stand 2 (Regeneration Harvest)

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

78 Comp. 44-Stand 3 (Thinning)

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

82 Comp. 44-Stand 4 (Thinning)

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

86 Comp. 44–Stand 8 (Shelterwood)

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

90 Comp. 44–Stand 10 (Thinning)

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

94 Comp. 44-Stand 11 (Shelterwood)

ID Team Comments: No specific comments or concerns.
Citizens Advisory Committee Comments: No specific comments or concerns.
Public Comments: No specific comments received.

- Final Proposals : Included as initially presented.

XI. Operational Management and Budget Summary

100 C. Operational Cost

XII. Appendices

102 Appendix 1 - 2015 FSC Audit Action Plan
105 Appendix 2 - 2015 SFI Audit Action Plan
106 Appendix 3 – 10-Year Timber Harvest Summary Table
107 Appendix 4 - Summary of Review and Comments as received.

ID Team Comments: No specific comments or concerns XI &XII.
Citizens Advisory Committee Comments: No specific comments or concerns XI &XII.
Public Comments: No specific comments received XI &XII.

- Final: Included as initially presented with associated Summary of Review and Comments inserted as new Appendix 4.

Comments as received:

Potomac Garrett State Forest
DNR-ID Team
FY-2017 Annual Work Plan Review
September 23, 2015

Attendance: Pete Hartman (MDE), Kenny Wampler (Fisheries), Alan Klotz (Fisheries), Eric Null (Parks), Steve Carr (LAP), John Wilson (LAP), Noah Rawe (PGSF), Jason Savage (PGSF), John Denning (PGSF), Rick Latshaw (WHS), Ed Thompson (WHS), George Eberling (MFS), Jack Perdue (MFS)

Laurel Run
Compartment 21A Stand 1&2

Figure 1 - View of road from the parking area.

53-acre shelterwood harvest

Access will be from the top of the site. Access trails will stay on contour. This site borders an Ecologically Significant Area.

Figure 2 - Pipe vine on site, a S2 species.

Comments: No issues from ID Team. This will be a thinning so increased light will not likely affect the Ecologically Significant Area. Pipe vine is present in the ESA, and if observed in harvest area, should be protected / left within a legacy tree.

Wallman

The ID Team stopped to view this Ecologically Significant Area due to goshawk management in FY 2015 AWP. This area has been contracted for understory work and marked for harvest.

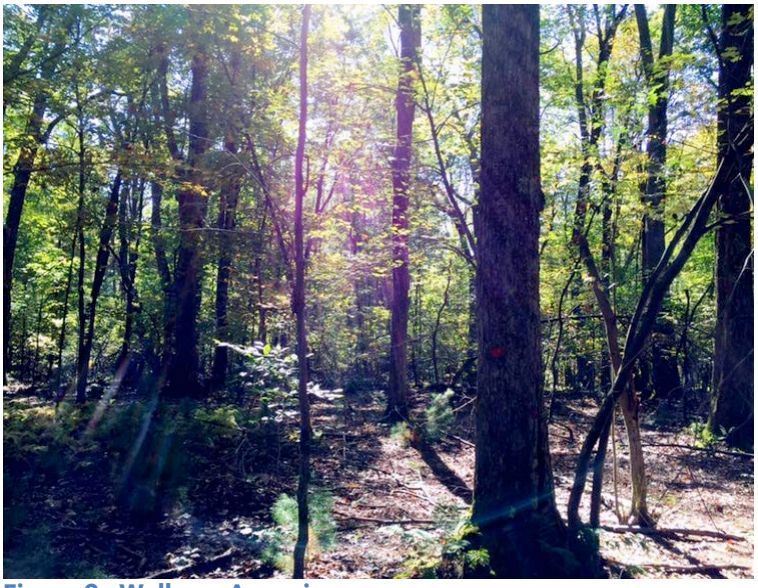


Figure 3 - Wallman Area view.

Figure 4 - DNR ID Team at Wallman.

Maple Glade

The proposal is to perform a white pine thinning on this site. This is an Ecologically Significant Area. Natural Heritage Program is okay with this proposed thinning. A variety of birds of important species have been observed here at one time. It will be important to try to keep the laurel in the understory. Natural Heritage Program wants to be on-site when the harvest marking begins. No goshawk sightings have been made here, but this work will help develop habitat for them should they move back into this area.

The harvest will not go past the drainage on this site.

Figure 5 - Maple Glade site near road.

Figure 6 - Maple Glade view.

Hutton Tract
Compartment 44 Stand 10
An old tram road borders the north of this area. Any springs that are discovered will be buffered from any harvest.

Other Proposals
The ID Team did not find it necessary to visit the other sites proposed in this annual work plan.

FY17 AWP public comments #1

---------- Forwarded message ----------
From: **Lloyd Iden** <lloyd.iden@gmail.com>
Date: Sun, Mar 27, 2016 at 8:52 PM
Subject: Forest Management Plans
To: jack.perdue@maryland.gov

Mr. Predue,

I would like to submit a quick comment on the future management plans of Maryland's forest. I would like to see a focus on promoting more early growth forests. I am an avid member of the Ruff Grouse Society and would love to have more habitat in Maryland that would support grouse, songbirds, whitetail and a variety of other wildlife that need young forests. I hope this can become one of your major priorities.

Thank you for the work that you do for all of us.

Lloyd Iden
14810 Springfield Rd
Darnestown MD 20874

FY17 AWP public comments #2

---------- Forwarded message ----------
From: <krschwa1@verizon.net>
Date: Tue, Mar 22, 2016 at 6:02 PM
Subject: Comments on MD Forest Annual Work Plans for 2017
To: jack.perdue@maryland.gov
Dear Mr. Perdue:

Please find attached the Maryland Ornithological Society's comments on the Maryland Forest Annual Work Plans for fiscal 2017. Please enter them into the official record.

Kurt R. Schwarz

Conservation Chair
Maryland Ornithological Society
www.mdbirds.org

www.mdbirds.org

March 22, 2016.

Jack Perdue
Forest Stewardship
Forestry Service
580 Taylor Ave., E-1
Annapolis MD 21401
jack.perdue@maryland.gov

Dear Mr. Perdue:

Regarding the Maryland Forest Annual Work Plans for fiscal 2017, the Maryland Ornithological Society (MOS) appreciates that the work plans contemplate no new offroad vehicle routes in the state forests. The closure of the severely deteriorated ORV trails in several state forests was an important step toward restoration of damaged wildlife habitat. No new ORV routes should be considered in any state forest. We urge DNR to direct any demand for ORV routes toward private lands, if any can be identified where the activity would comply with air and water pollution laws and regulations and would be consistent with local ordinances.

MOS is favorable toward the maintenance of existing ORV trails in Savage River and Potomac-Garrett as provided in the draft work plans. Such trails should be managed to hold erosion and other impacts to the absolute minimum. The damage from unmaintained or inadequately maintained trails would have an impact against wildlife habitat.

In Green Ridge SF we support the work plan items to enhance early succession wildlife habitat in the forest and enhance cerulean warbler habitat within the Pine Lick ESA. We also support the monitoring projects for American Woodcock population in Kirk Orchard area and Whip-poor-will populations with annual spring nightjar survey.
In Savage River SF we support the ongoing surveys for the Golden-winged Warbler.
Sincerely,

Kurt R. Schwarz
Conservation Chair
Maryland Ornithological Society
www.mdbirds.org

FY17 AWP Public comments #3

---------- Forwarded message ----------
From: **Ryan Strickler** <RStrickler@sandyspringbank.com>
Date: Mon, Mar 7, 2016 at 3:24 PM
Subject: State Forest Annual Work Plan
To: "jack.perdue@maryland.gov" <jack.perdue@maryland.gov>

Good Afternoon,

My comments are short. We need more early successional forest within the state forest system. It seems that most of the attention is focused on larger game (deer and turkey) with minimal attention to upland animals.

Thanks.

Ryan E. Strickler
Mortgage Banker | Mortgage | NMLS# 1064045
6831 Benjamin Franklin Drive, Columbia, MD 21046
(301.617.4236 | Cell: 301.789.7326 | Fax: 301.545.6922
* rstrickler@sandyspringbank.com

FY17 AWP Public comments #4

---------- Forwarded message ----------
From: **Sidney Beddow** <sbeddow@zoominternet.net>
Date: Thu, Mar 3, 2016 at 11:24 AM
Subject: State Forest Annual Work Plans
To: Jack Perdue <jack.perdue@maryland.gov>
Dear Mr. Perdue,

I wanted to take a moment to send you a brief message concerning the current State Forest Annual Work Plans posted on the Department Web site. Generally I think Maryland is doing a good job with our state forests in creating early successional forest. However, we definitely need more. The work plans reflect a well thought out program and I recognize the considerable amount of work and thought that has gone into their preparation.

I would urge you to create more young forests with buffer strips and to continue the active management of these forests. I realize there are those out there that think the State forests should not be disturbed and proper forest management tells us that is not what is good for our forests.

Sincerely,
Bill
Sidney W. Beddow II
The HR Connection LLC.
817 St Anne Drive
Street, MD 21154
410-937-0190

FY17 AWP Public comments #5

---------- Forwarded message ----------
From: **Dave Hansroth** <DaveH@ruffedgrousesociety.org>
Date: Tue, Mar 1, 2016 at 10:57 AM
Subject: State Forest work plans
To: "jack.perdue@maryland.gov" <jack.perdue@maryland.gov>
Cc: Linda Ordiway <LindaO@ruffedgrousesociety.org>

Mr. Perdue,

Generally I believe the MD state forests are pretty well managed. However, I am a grouse and woodcock hunter and I would very much like to see more management for early successional forest. More clear cutting and heavy select cutting. There is still way too much mature forest and not enough diversity on the state forests. Wildlife will thrive with a patchwork of different aged forests.

Thanks so much for the opportunity to comment.

Dave

Dave Hansroth
Ruffed Grouse Society
American Woodcock Society
Regional Director, Mid Atlantic Area
108 Prospect Street
Middletown, MD, 21769
Cell: 412-303-1405
Office: 240-490-8996

FY17 AWP Public comments #6

---------- Forwarded message ----------
From: **James Ashby** <jnabirdman@hotmail.com>
Date: Fri, Feb 26, 2016 at 8:06 AM
Subject: State Forest Annual Work Plans
To: "jack.perdue@maryland.gov" <jack.perdue@maryland.gov>

Jack,

The forest management plan seems sound but what about opening more outdoor recreation activities for vehicular traffic? The ORV trail that was in Poplar Lick was a very fun trail system with a diverse ecosystem that you were able to enjoy and camp at. Now the system is closed to ORV traffic. Perhaps this was closed for the management of brook trout and to reduce sedimentation and erosion but I think we need more vehicular trails. Not everyone has the luxury of a snowmobile but we all have a truck or jeep that want to get out on the trails also. Perhaps Savage River State Forest isn't the best location for this but the state should look into this opportunity to expand outdoor activities offered. To me it seems all the trails systems in the state are for snowmobiles and not for 4 wheelers or trucks/jeeps, so the state currently only provides recreational activities in the form of trail riding to a very limited group of outdoor enthusiasts. Maybe Potomac-Garrett State Forest would be the best fit for vehicular traffic in the form of driving trails to protect Savage River and the vast wilderness area the state is establishing.

Thanks,

Jim

FY17 AWP Public comments #7 of 7

---------- Forwarded message ----------
From: <ekgrosscup@verizon.net>
Date: Fri, Feb 26, 2016 at 12:03 AM
Subject: 2017 Md state Forest work plan
To: jack.perdue@maryland.gov

Greetings Jack
After looking through the state plans , I did not see any thing regarding food plots for local or migrating fowl and upland birds.
I have hunted and hike a great number of the state parks and there is a need to sow in feed plots to carrier over birds during the winter months.
my suggestion something in the order of mix sorghums, clover, rape along with sun flower, along with rag weed and winter wheat plants.
I believe that this would be a great start in taking care of multiple species like rough grouse, Pheasant , Deer ,rabbits and bees just to name a few primary prey and numerous secondary species what I call like song bird and black bears
This would give food during the winter months and cover from prey during the spring to raise there young.
It great to see that there is plans too thin out some of the forest trees to make more room for young trees servile , but if we are going to reforest
I would like to see more of a diversity of tree like Aspen these tree provide a good foods source for a number of wild life during the winter months.
As you can see my concern is about feeding wildlife during the winter month and providing them a day care area to raise there young at the same time
giving hiker and hunter the opportunity to hunt and observe wild life first hand.
I was at two park this past week before the flood set in, one was Patapsco state park the fox hall farm area which is mostly for bow hunting deer and the fields are over grown
and very bad shape with thorny mutii flower rose consuming a good part of it. not a good food source at all
and the other was spice creek which is in the same poor conditions.
Hiking ,camping and Hunting/Fishing is a Trillion dollar industries and would bring money back to the state, working with local farmers and using good land
conservation practices will pay off now and for future generation .
Pheasant Forever, quail Forever along with The Rough Grouse Society are great organization to look to for advice and to bring them together with local farmers to bring
wild life into an area like wood cook to migrate, Pheasants and so forth
Any questions please feel free to contact me via email or my phone 443-838-9060
Have a great weekend
Ed Grosscup