

POTOMAC / GARRETT STATE FOREST

ANNUAL WORK PLAN

FISCAL YEAR 2018



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SFI-00050



Prepared: _____

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9/5/2017
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10.11.2017
Date

Potomac-Garrett State Forest
FY-18
Annual Work Plan



**Potomac- Garrett State Forest
FY-18 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-18 Annual Work Plan for Potomac-Garrett State Forest details three Special Management Projects and 15 Land Management Projects that will be the focus of the State Forest management staff for FY-18. 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 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** – Extension 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 and being utilized in all land planning efforts, inventory work will continue in the form of follow-up monitoring protocols associated with the initial inventory and certification requirements.

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.

-1 Wildlife Habitat Project affecting approximately 1 ac. of forest land to improve habitat elements associated with a wildlife opening.

- 9 Silvicultural Projects including:

1 Intermediate Harvest on 28 acres, and

2 Regeneration Harvests on 54-acres of hardwood.

6 Noncommercial Silvicultural practices to promote regeneration and seedling establishment by controlling interfering, undesirable tall woody vegetation on 65 acres; and by controlling interfering and undesirable fern, grass and dewberry 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.

Approximately 544,000 board feet of timber will be contracted for harvest in FY-18. This will involve 6 sales including the 3 sites and 82 acres as detailed in this AWP document and an additional 3 sites and 101 acres from previously approved work plans. The 544,000 board feet will put an estimated \$ 138,500 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-18 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-18 Land Management Proposals (Map Key)

Garrett State Forest Mapped Sites

Recreation Proposals

1. Maple Glade Road Resurface and Erosion Control

Wildlife Management Proposals

1. Comp. 41 Stand 8 (Wildlife Opening, Edge Cut)

Silvicultural Proposals

1. Comp. 32 Stand 8 (Commercial thinning)
2. Comp. 32 Stand 9 (Pre-harvest treatment of interfering veg.)
3. Comp. 32 Stand 18 (Clear-cut with variable retention, treatment of competing veg. & deer exclosure fence)
4. Comp. 33 Stand 2 (Pre-harvest treatment of competing veg.)
5. Comp. 39 Stand 12 (Pre-harvest treatment of competing veg.)
6. Comp. 39 Stand 13 (Over-story removal with residuals)
7. Comp. 41 Stand 8 (Pre-harvest treatment of competing veg, Balsam Fir & Red Spruce release)
8. Comp. 42 Stand 8 (Pre-harvest treatment of competing veg.)
9. Comp. 45 Stand 6 (Balsam Fir & Red Spruce ‘Crop Tree Release’)

Potomac State Forest Mapped Sites

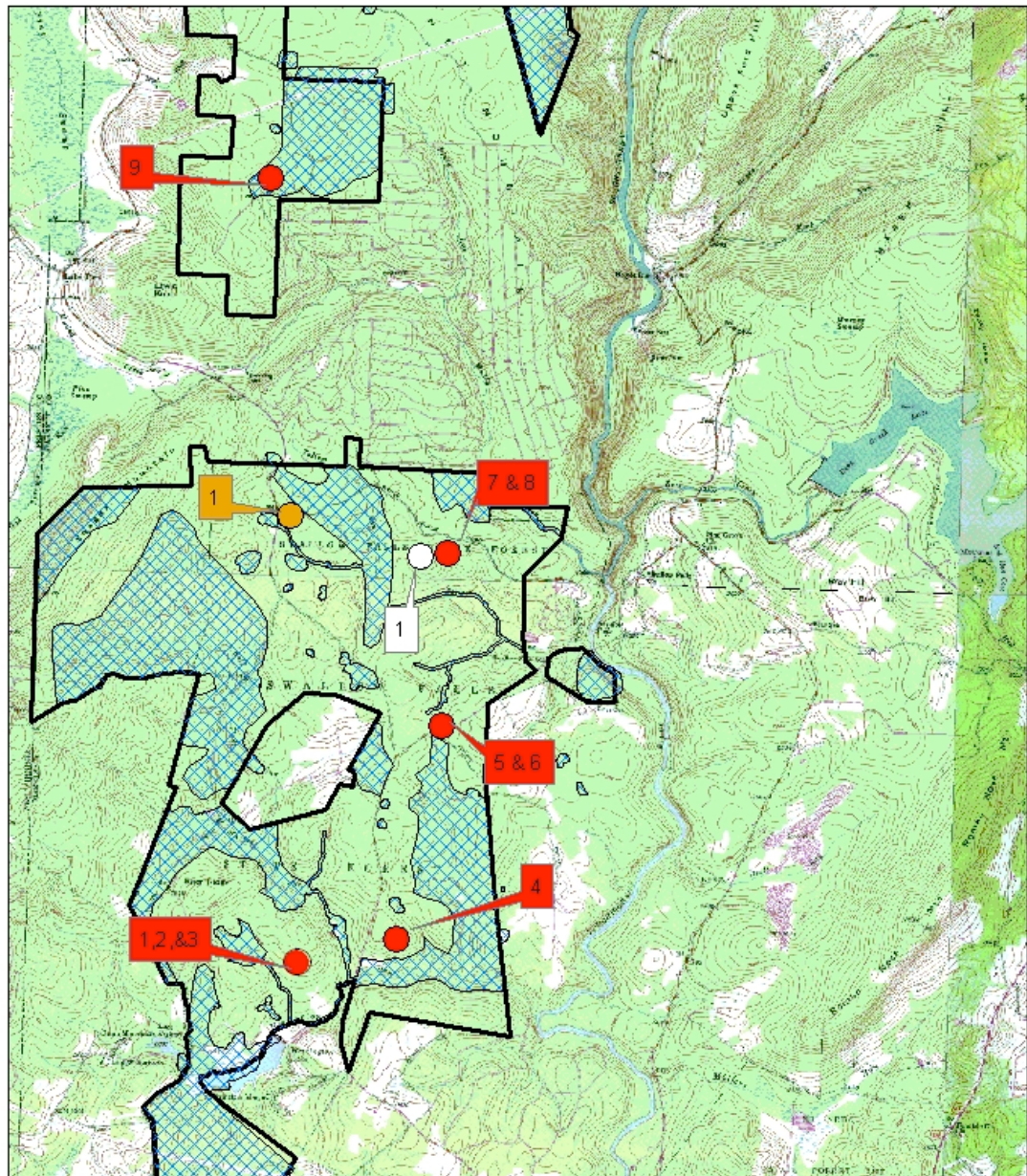
Recreation Proposals

1. CCC Camp Road-Trail Restoration

Watershed Protection

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

Potomac Garrett State Forest AWP-18 General Location Map



 High Conservation Value Forest (Total)

 = Recreation Proposals

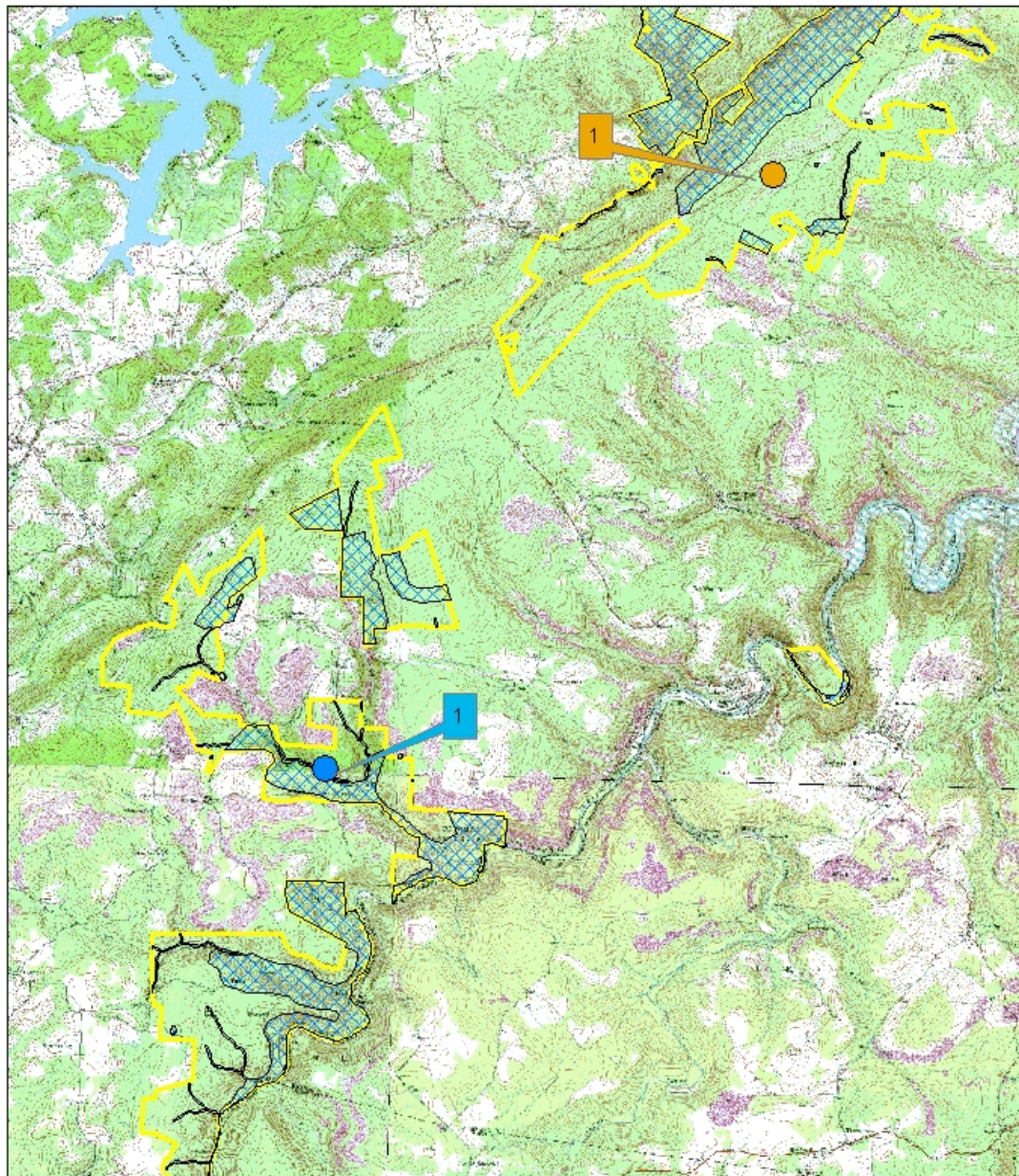
 = Wildlife Proposals

 = Silviculture Proposals

1:60,000



Potomac State Forest FY-18 General Location Map



 High Conservation Value Forest (Total)

 = Recreation Proposals

 = Watershed Protection

1:100,000



IV. Special Projects - Forest Resource Management and Planning

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

(This work is done with special focus on addressing items identified as in need of improvement as a result of 2016 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 next 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 2016 audit turned up minor observations that are to be addressed by the next audit. (See Appendix 2 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 are to have been 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 was expected to take 4-5 years to complete and 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 and processing of this data has been completed; 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 utilize portions of this 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.

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 72.9 miles of roads and 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-18 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-17/18 maintenance staff will concentrate on carrying out planned trail maintenance as outlined in the 3 National Recreation Trail Grants detailed in the Recreation Section of this plan. This will be carried out in addition to 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, along with routine maintenance of the roads and trails as outlined in the roads maintenance plan.

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 develops annual maintenance plans 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.

The 72.9 miles of roads and multi-use trails are classified by the desired use and condition and are broken down as follows:

17 miles of Class 1 – Year round, permanent, public vehicle access, high traffic areas (non primitive).

General description of these roads is an un-gated, hardened (stone surfaced) access road, with primary drainage provided by use of in-sloping, out-sloping, crowning, ditches, and culvert pipes. Road is designed to accommodate four season traffic.

These roads provide primary access to State Forest recreational-use areas, primarily camping areas and adjacent State parks.

4.4 miles of Class 2 – Year round, permanent, public vehicle access, low traffic areas (primitive).

General description of these roads is an un-gated, hardened (stone surfaced) access road, with primary drainage provided by use of in-sloping, out-sloping, crowning, ditches, and culvert pipes and ***broad based dips***. Road is designed to accommodate four season traffic.

These roads provide year round access to State Forest Areas other than camping areas. The primary difference between class 1 and class 2 roads is the standard at which the traveled surface is maintained. Class 2 roads will use the surface shaping as well as broad based dips, etc., to manage storm flows with ditches and culverts used to handle intermittent and perennial stream flow.

7.9 miles of Class 3 – Seasonal, gated, public vehicle access, low traffic areas (primitive).

General description of these roads is a gated, hardened (stone surfaced) access road, with primary drainage provided by use of in-sloping, out-sloping, crowning, ditches, and culvert pipes and ***broad based dips***. Roads are designed to accommodate four season traffic, but are only periodically opened to allow for seasonal access.

These roads are seasonally opened to provide hunting access to remote areas of the State Forest. Class 3 roads can include Handicapped Hunter Access Roads, as well as other roads that are opened to encourage hunter access.

These roads provide gate controlled seasonal access to State Forest areas. The primary difference between Class 2 and Class 3 roads is the gated access that is used to control the seasonal access. Class 3 roads will use the surface shaping as well as, broad based dips etc, to manage storm flows with ditches and culverts used to handle intermittent and perennial stream flow.

22.2 miles of Class 4 – Gated, service vehicle road (primitive).

General description of these roads is a gated, non-hardened access road, with primary drainage provided by use of in-sloping, out-sloping, crowning, broad based dips and ‘water breakers’ with minimal ditches, and culvert pipes. Road surface varies based on prior use and present needs; but may vary from minimal stone, to ‘seeded to game food’ to natural herbaceous cover. Roads are designed to accommodate minimal 3 season traffic, and are used by agency staff to carry out work on the forest.

These roads provide gate controlled service access to State Forest areas. The primary difference between Class 3 and Class 4 roads is the surface condition and durability.

Class 4 roads will use the surface shaping as well as, broad based dips etc, to manage storm flows with ditches and culverts used to handle intermittent and perennial stream flow.

Mileage no longer tracked -Class 5 – Temporary/Retired

General description of these roads is a temporary access road, that will be closed to any vehicle access as it no longer serves a State Forest management needs, or roads that may have been retired to provide important sensitive resource protection. These roads have been abandoned after having been “put to sleep” or stabilized to prevent erosion and sedimentation. Road surface varies based on prior use and may vary from minimal stone to reverting to natural herbaceous cover.

These former roads are open to foot traffic only and in many cases may serve as a conduit for hunters or other backcountry users to gain access into remote forested areas. The primary difference between Class 4 and Class 5 roads is the lack of further maintenance on the abandoned Class 5 roads.

As Class 5 roads are abandoned, there is no need to retain them on inventory.

Class 6 - Special use – Paved surfaces

Includes parking lots and driveway surfaces at the State Forest Headquarters (Office, shop and maintenance compound and paved pavilion areas.)

21.4 miles of Hiking Trails –Year round non-motorized use trails. These designated hiking / and non-motorized use trails and generally include a larger component of ‘single track’, natural surface trail bed. Certain trails are designated ‘foot traffic only’ due to the sensitive nature of their locations.

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-18 will focus on 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. National Recreation Trails Grant Requests

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

1. CCC Camp Road – Trail Restoration -\$37,715

(\$30,000 Requested Grant funds with \$7,715 matching funds for ‘in kind’ services)

This project will involve resurfacing 1.2 miles of the 8.5 mile long Backbone Mountain ORV Trail. More specifically, this work will focus on the section of trail known as the CCC Camp Road. Work will include resurfacing and top dressing the gravel surface with compacted crushed stone to restore proper drainage and sufficiently harden the traveled surface of the CCC Camp Road / ORV Trail. This work will restore access to this section of trail that has been closed for several years due to collapsed culverts. The work will stabilize the trail surface and reduce erosion and sediment loading to adjacent streams. This segment of trail is part of the 8.5 mile Backbone Mtn. ORV Trail, which is part of the greater 28.3 mile ORV trail network on the state forest. For the safety of trail users and the contractors carrying out the work, during the harvest, the effected sections of the trail will be posted and closed, with visitors being redirected to other trails in the area. Notice will be posted at affected trail heads as well as on the MD Forest Service website and the State Forest web page.

2. Maple Glade Road - Trail Resurface and Erosion Control - \$37,805

(\$30,000 Requested Grant funds with \$7,805 matching funds for ‘in kind’ services)

This project will involve maintenance and restoration of an existing multi-use trail network and will include sediment and erosion control abatement through restoration of proper drainage to the 1.8 mile section of Maple Glade Access / Multiple Use Trail. Work will involve replacement of several failing culvert pipes carrying storm water and live water courses, as well as grading and surface drainage corrections.

This project benefits the recreational *users* of the Garrett State forest by first improving motorized access to a variety of recreational resources including: trail head access to 3 separate non motorized trails, (Toliver Trail, 5 1/2 Mile Trail, and Fisherman's Trail), trout fishermen's access to the Muddy Creek stream, Handicapped Hunter Access, as well as alternative access to the popular Swallow Falls State Park. More importantly, this project will improve the water quality of both Toliver Run and Muddy Creek, both of which drain to the Youghiogheny River; all of which are trout waters. Water quality will be improved by reducing sediment loading associated with this failing and unstable graveled access trail bed.

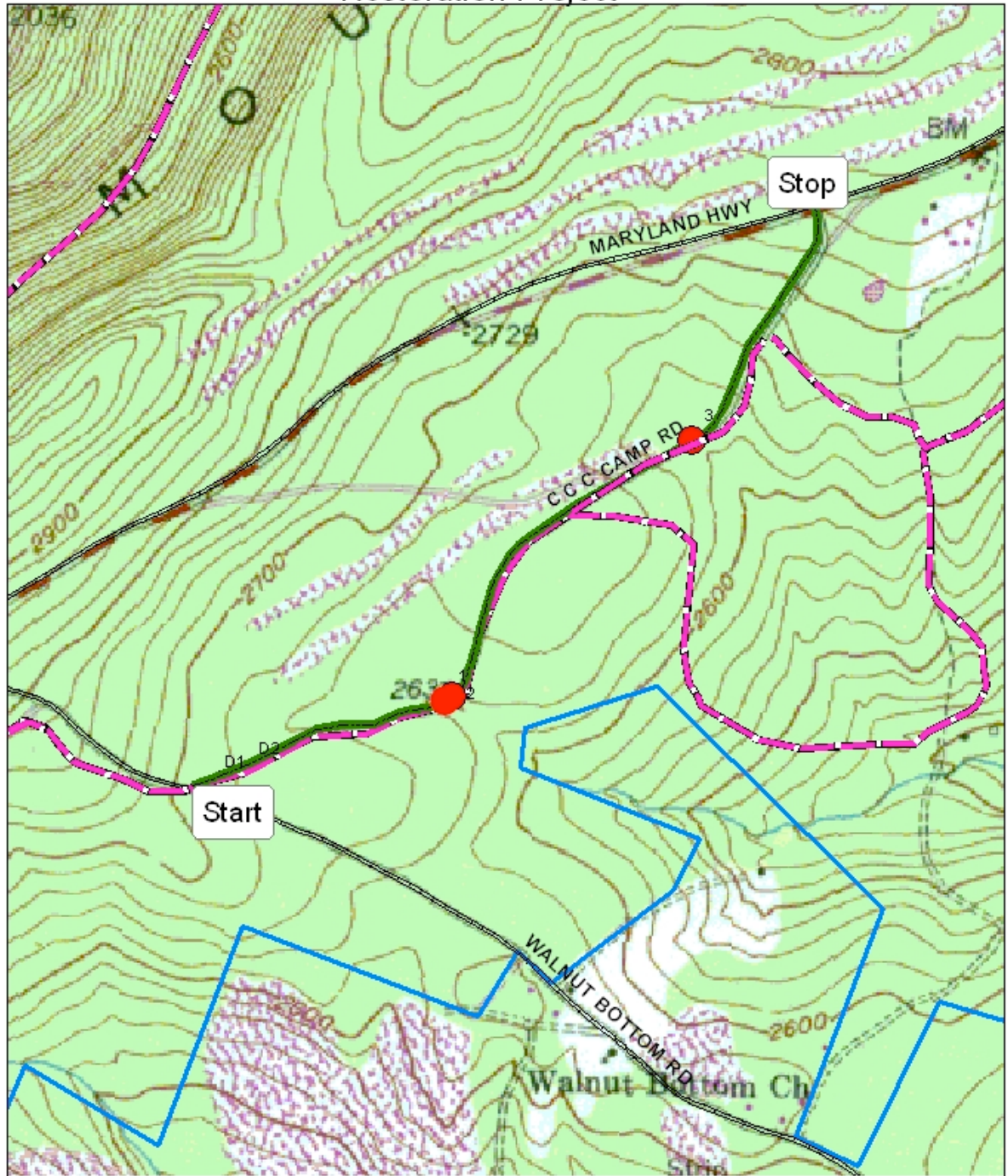
3. Potomac/Garrett Trail Maintenance Labor - \$37,500

(\$30,000 Requested Grant funds with \$7,500 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. For the safety of trail users and the staff carrying out the work, the effected sections of the trail will be posted and closed, with visitors being redirected to other trails in the area. Notice will be posted at affected trail heads as well as on the MD Forest Service website and the State Forest web page.

Site Map for C.C.C. Camp Road/Trail Restoration Project

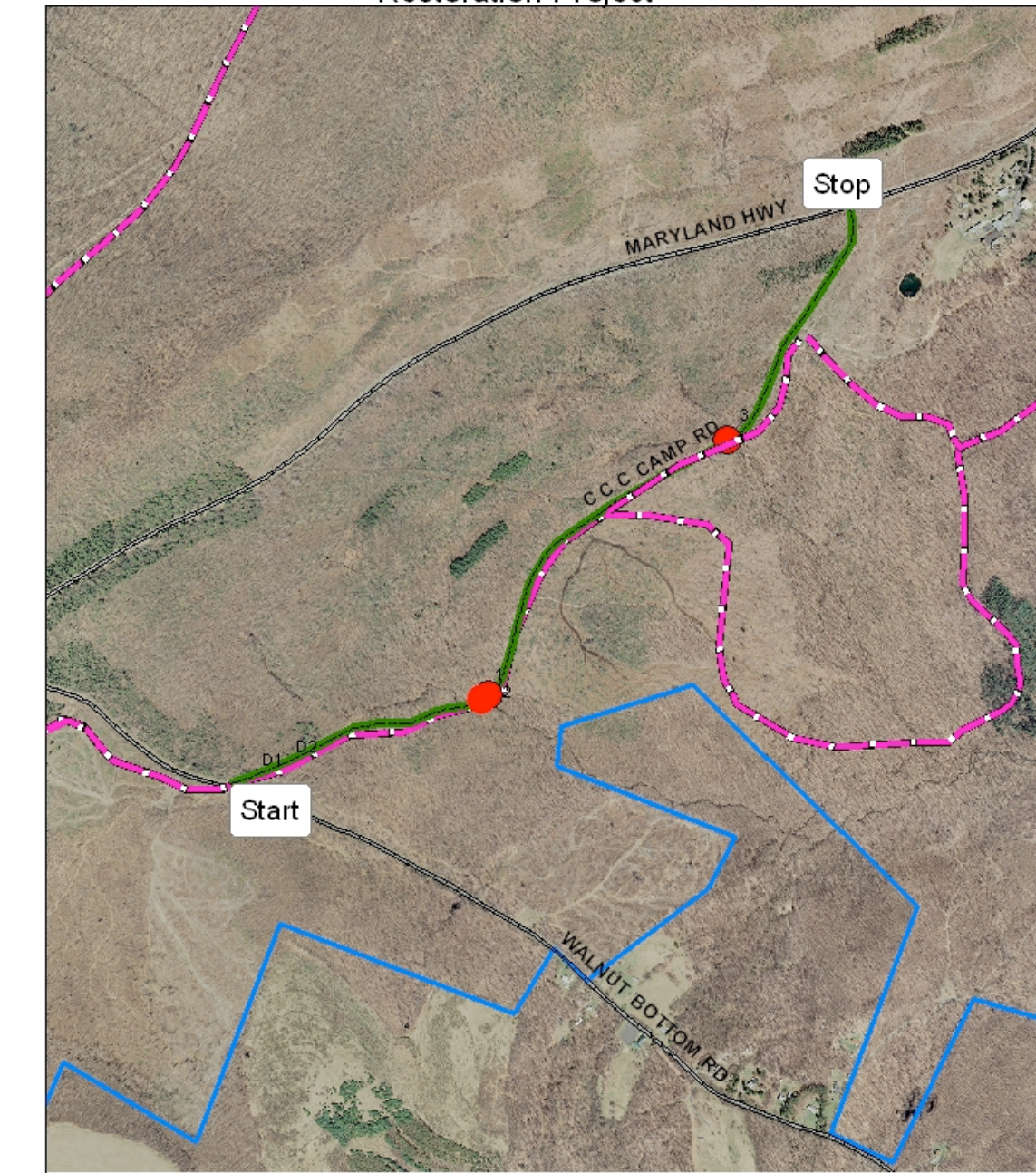


0 335 670 1,340 2,010 2,680 Feet

- C.C.C. Camp Road Culverts
- C.C.C. Camp Road
- - - Potomac Snowmobile Trails
- State Forest Boundary



Site Map
for
C.C.C. Camp Road/Trail
Restoration Project

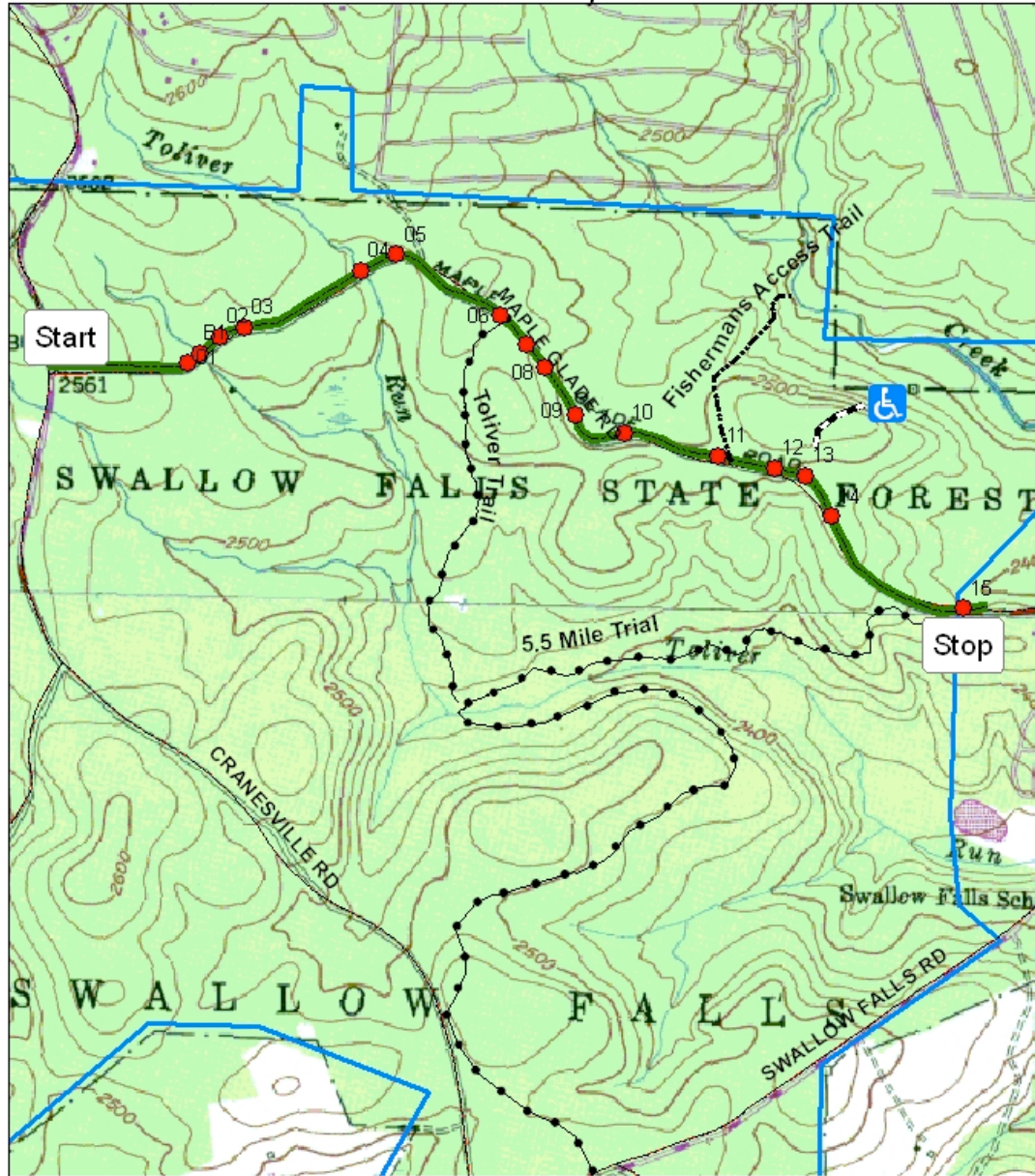


0 335 670 1,340 2,010 2,680
Feet

- C.C.C. Camp Road Culverts
- C.C.C. Camp Road
- - - Potomac Snowmobile Trails
- State Forest Boundary



Site Map
for
Maple Glade Road/Trail
Restoration Project

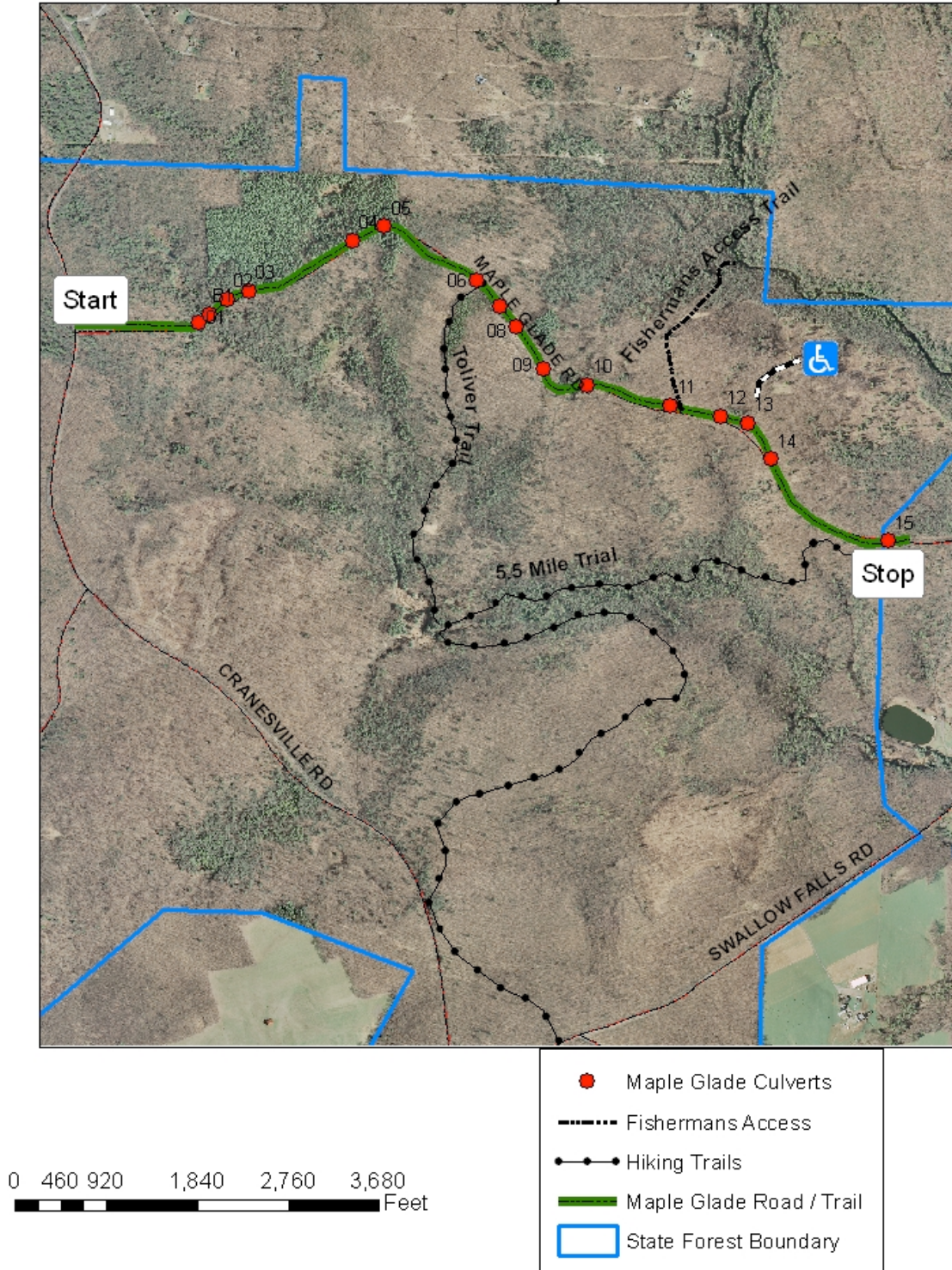


0 460 920 1,840 2,760 3,680 Feet

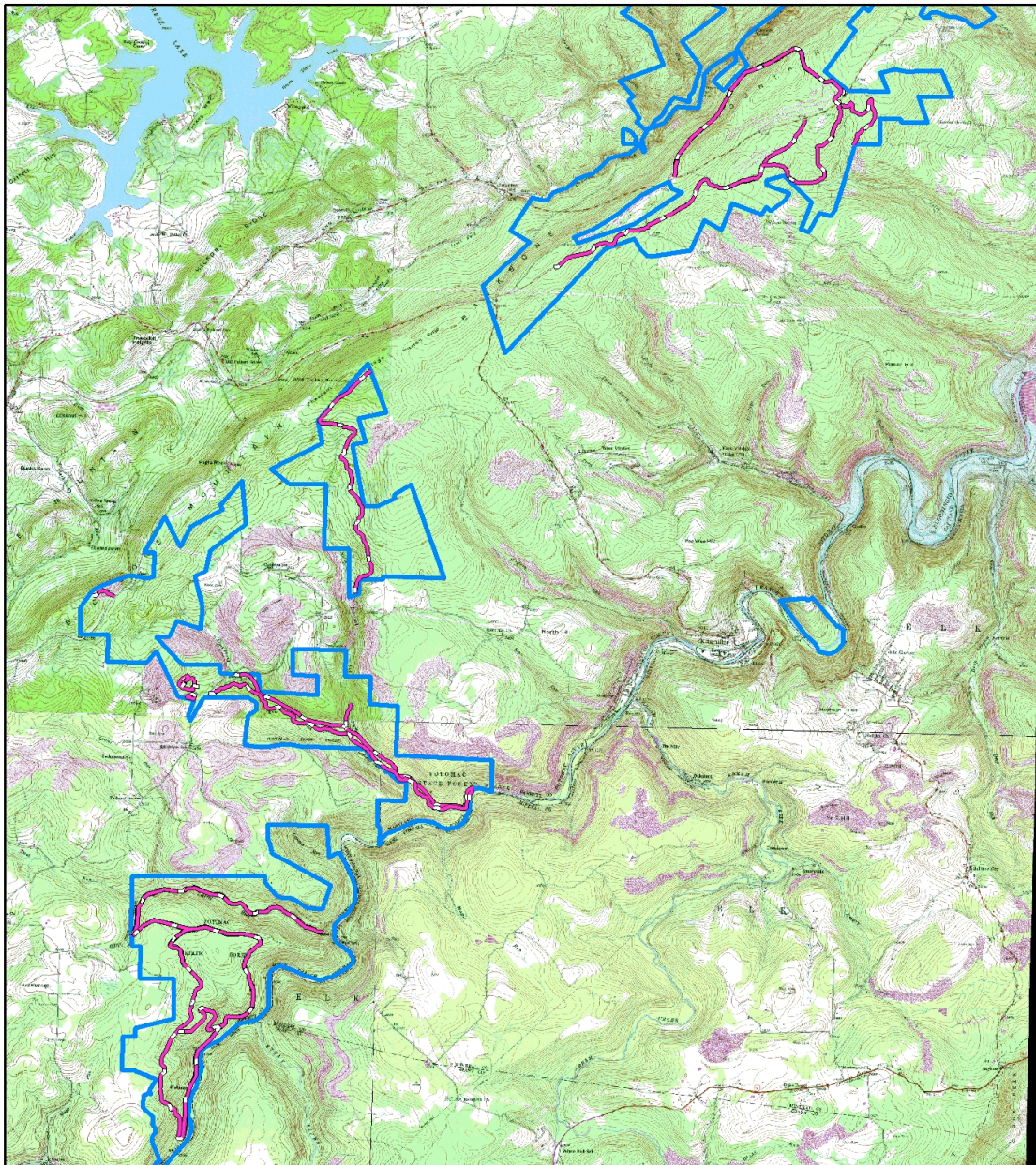
- Maple Glade Culverts
- Fishermans Access
- ... Hiking Trails
- Maple Glade Road / Trail
- State Forest Boundary



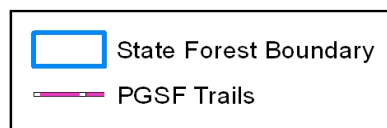
Site Map for Maple Glade Road/Trail Restoration Project



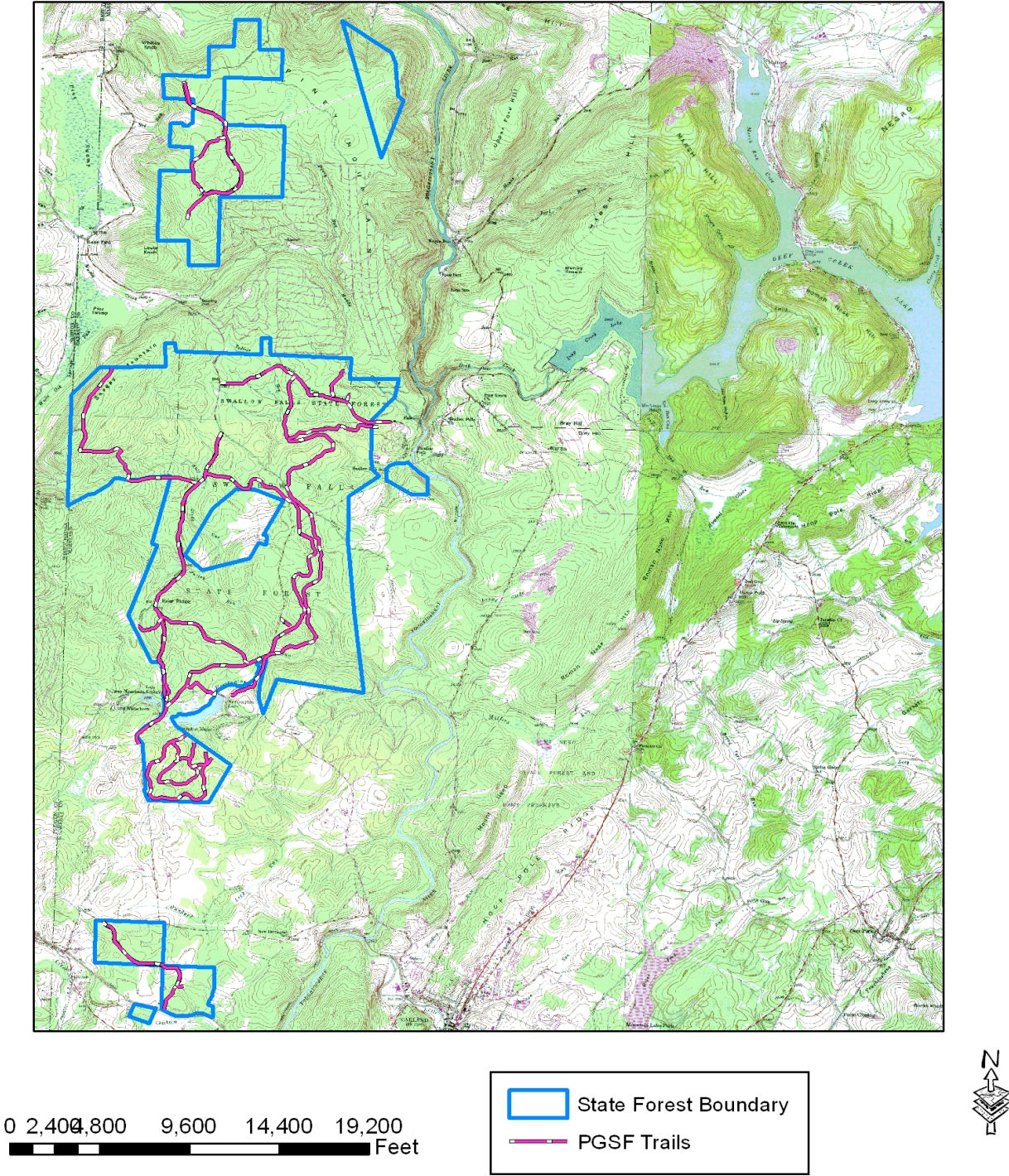
Potomac Trail Maintenance



0 2,756,500 11,000 16,500 22,000 Feet



Garrett Forest Trail Maintenance



VII. Watershed Protection

1. COMPARTMENT 19

FY-18

Lostland Run HWA Mitigation / Red Spruce Planting

Description

In 2004 the significant forest pest, Hemlock Woolly 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.

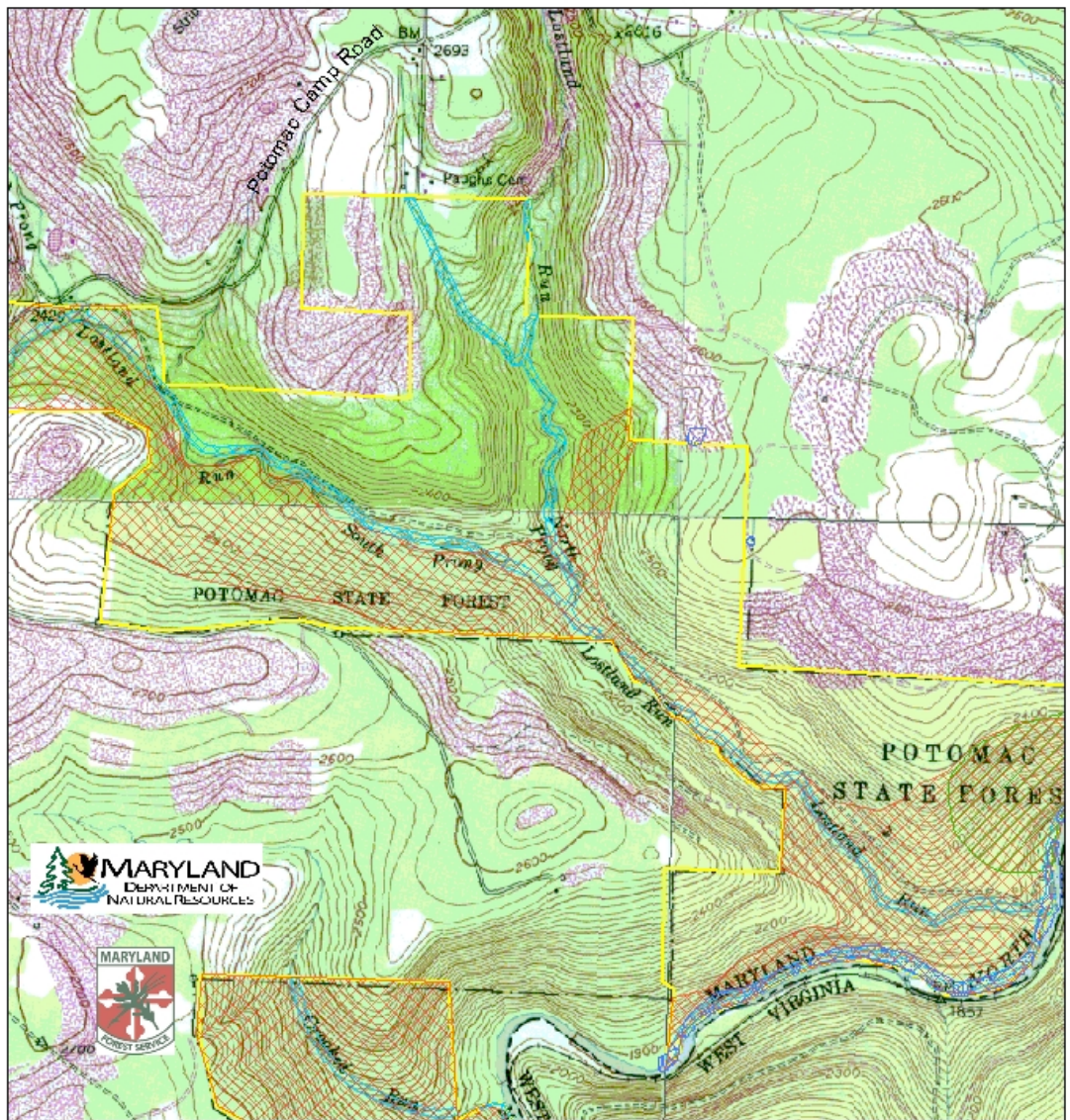
Further research and experimentation with control of the available light is necessary to determine if under planting with Red Spruce is a viable option that may offer a natural means of offsetting the negative impacts associated with the likely loss of the hemlock stands along this important brook trout 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-18 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-18



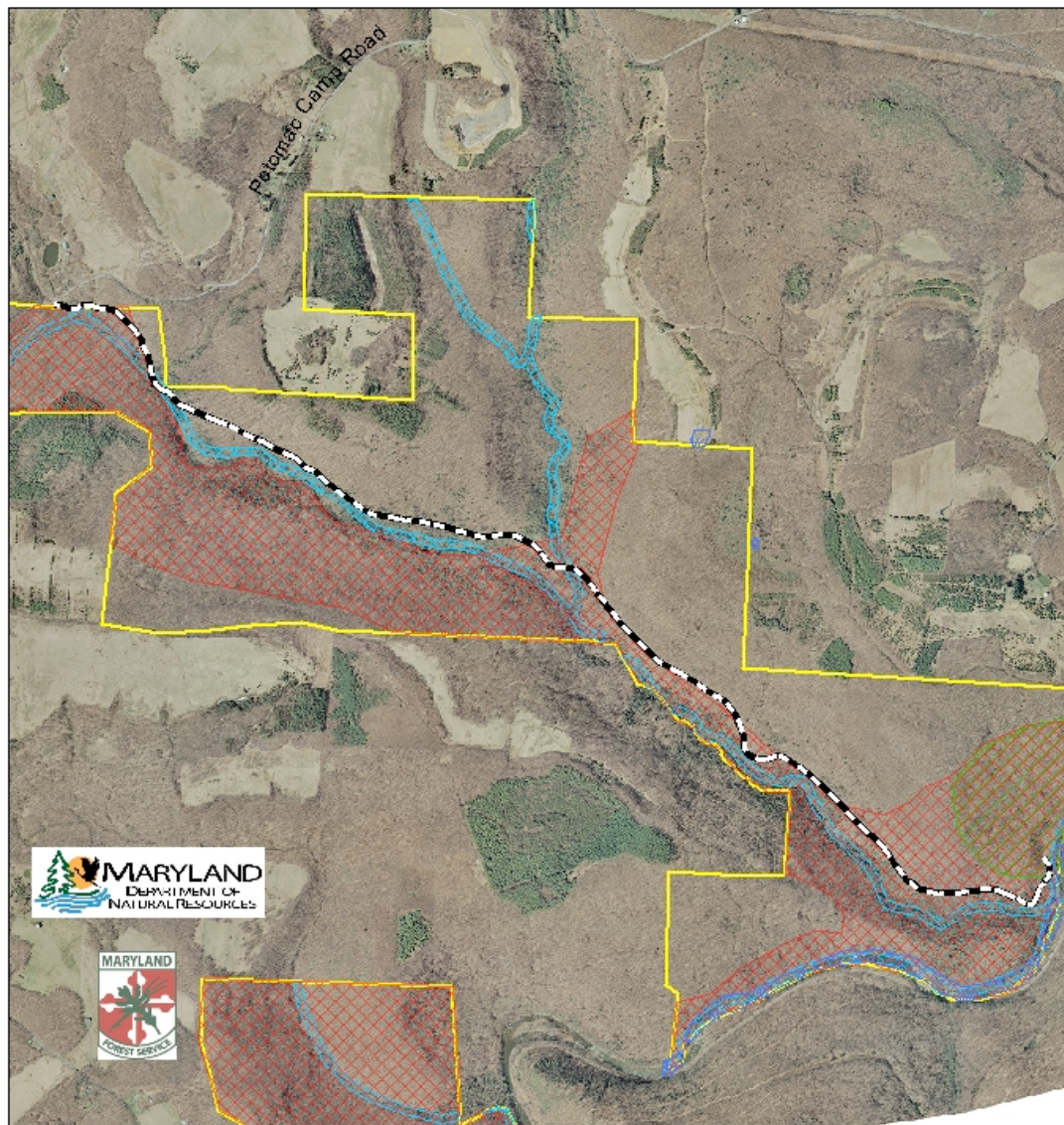
Compartment.....18,19,20,21

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

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



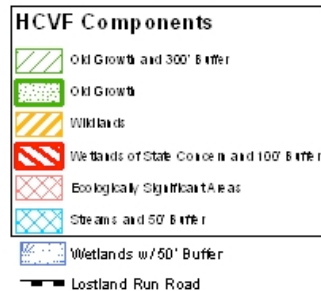
Compartment 19 Lostland Run HWA Mitigation/ Red Spruce Underplanting FY-18



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



VIII. Ecosystem Restoration / Protection Projects

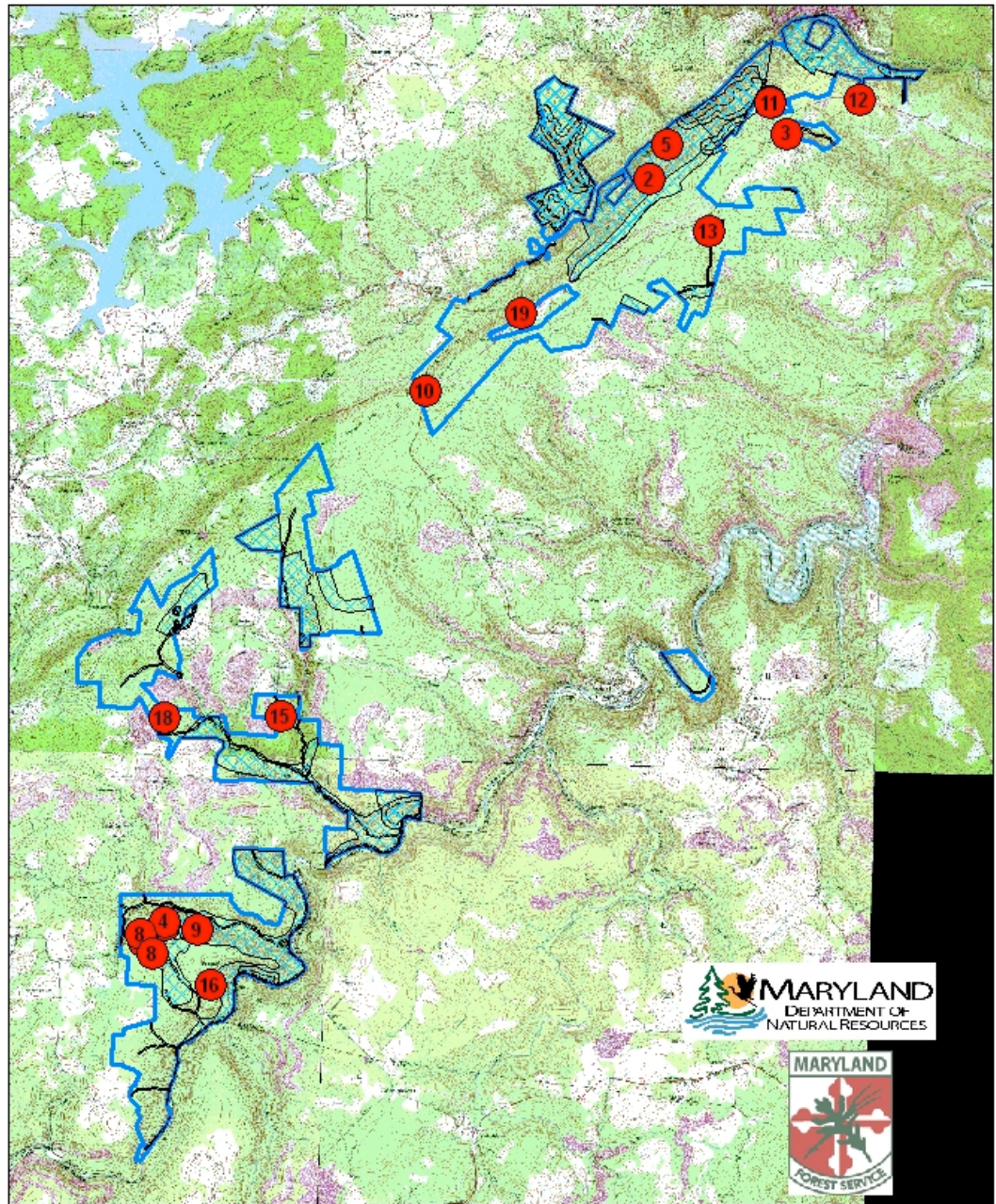
A. Non-Native Invasive Species (NNIS) Control

Across the State, a biological invasion of non-native plants is spreading into our fields, forests, wetlands and waterways. Various 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:

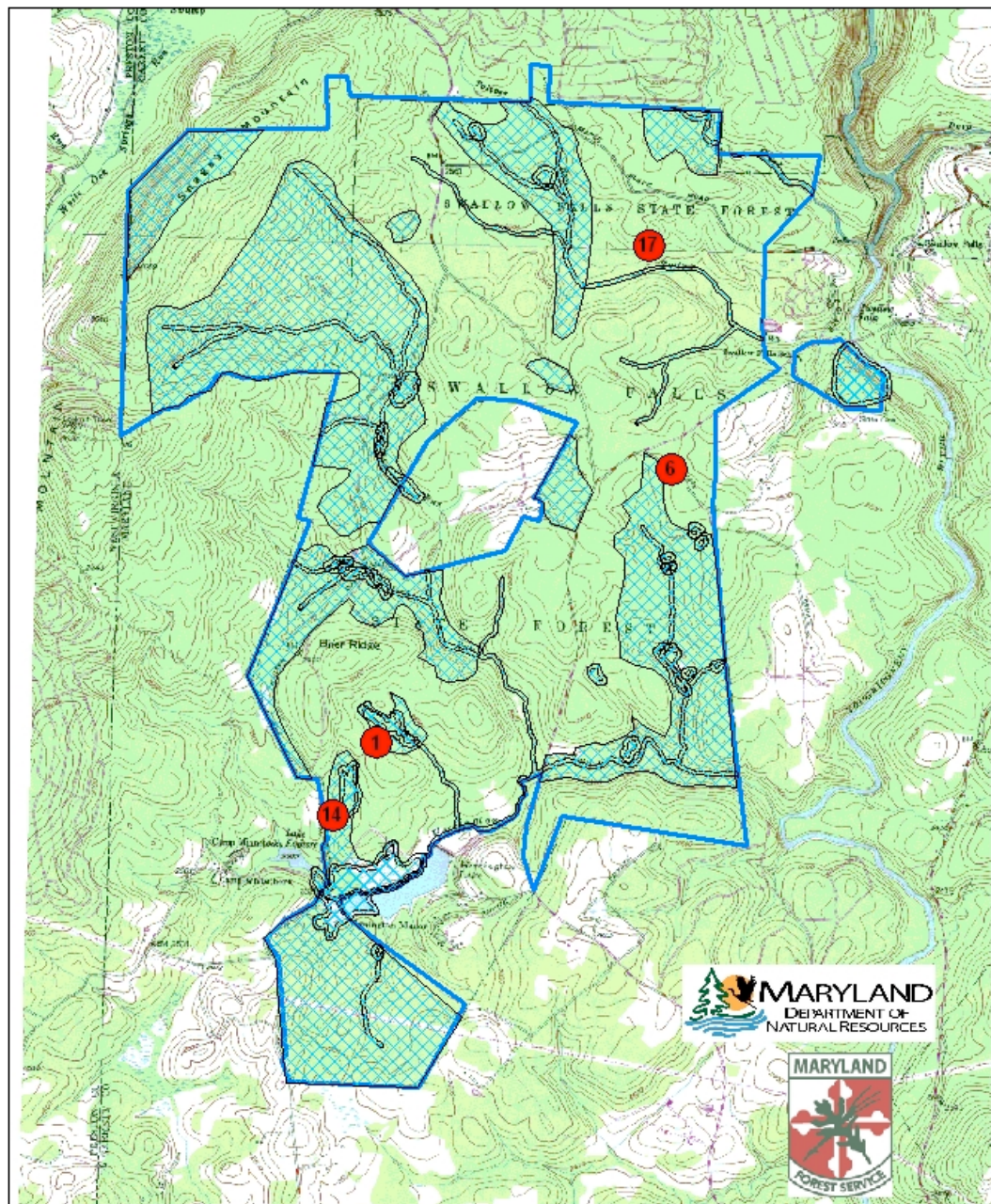
- | | |
|-----------------------|--------------------------|
| 1. Tree of Heaven | 11. Japanese Knotweed |
| 2. Japanese Knotweed | 12. Japanese Knotweed |
| 3. Mile A Minute | 13. Mile A Minute |
| 4. Tree of Heaven | 14. Japanese Barberry |
| 5. Tree of Heaven | 15. Oriental Bittersweet |
| 6. Japanese Knotweed | 16. Tree of Heaven |
| 7. Japanese Spirea | 17. Tree of Heaven |
| 8. Tree of Heaven | 18. Tree of Heaven |
| 9. Tree of Heaven | 19. Japanese Knotweed |
| 10. Japanese Knotweed | |

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



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



- Monitoring Sites
- High Conservation Value Forest (Total)



IX. Wildlife Management Proposals

COMPARTMENT 41 Stand 8 (Wildlife opening edge cut.)

FY-18

Description/Resource Impact Assessment

Location: This 1 acre wildlife opening is located on the Snaggy Mountain Complex in Compartment #41 Stand 8 of the Garrett State Forest. The opening is located near the end of the Toliver Trail.

Forest Community Type and Condition: This small opening is only 1 of 3 permanent openings maintained in the Snaggy Mountain Complex. As with all of the maintained wildlife management openings on the forest, this site is managed to provide important open land habitat conditions that offer feeding, brooding and foraging areas for a variety both game and non-game animals. This opening has been growing closed over time and the shade provided by the surrounding hardwoods is limiting the site's ability to support a quality forb and forage base.

The surrounding forest stand is a 33-acre mature, 100 year old Allegheny Hardwoods stand. *(See proposed silvicultural work planned for this stand under the Silviculture Section of the AWP)* The over story is made up primarily of Black Cherry (40%), White Oak (21%), and Red Maple (21%). The stand is fully stocked at 80% relative density and 132 sq.ft. BA/acre, of which 80 sq. ft. are acceptable growing stock. There is insufficient competitive, desirable regeneration present throughout the stand with only (5%) stocking. Most notable is the presence of a few Red Spruce and Balsam Fir trees located within a portion of the stand (primarily seedlings and saplings with a couple larger "parent" trees). The minimal oak seedlings present should be given consideration when addressing the interfering vegetation.

Interfering Elements: With respect to surrounding forest. 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 is high, with 64% of the stand having problematic ferns, and 32% having problematic Dewberry cover. Tall woody interference occupies 70% of the stand and is comprised of Serviceberry, Eastern Hemlock, Hawthorn and Witch-Hazel. Non-native invasive species (NNIS) were observed in the stand inventory including Japanese Barberry.

Historic Conditions: The site is mowed annually to maintain the grassy opening conditions. As funding has been limited, this remote area has seen little recent improvement through the use of seed, lime or fertilizer to improve the quality of the grass and forb base. This site, like most of PGSEF, was likely cutover and burned around the turn of the 20th century. This stand has not been entered in recent time. The area was sprayed for Gypsy Moth suppression in 1990 and 91. There were no forest pests identified during the inventory.

Rare, Threatened and Endangered Species: Within the body of the surrounding stand, several remnant native Red Spruce (*MD State Listed as S-3) and a few, very rare native Balsam Fir (**MD State Listed as S-1) trees and seedlings were discovered during the inventory. The very

few Balsam Fir are all that is left of a small, approximately 1 acre, isolated pole stand that had gone undiscovered and has recently died out; as evidenced by numerous dead, down and decaying on the forest floor. The Forest Manager knows of no other rare, threatened or endangered species on the site or impacted by the silvicultural prescription.

**(S-1 = Highly State Rare. Critically imperiled in MD because of extreme rarity typically 5 or fewer estimated occurrences or very few remaining individuals or acres in the State)*

*** (S-3 = Rare to uncommon with the number of occurrences typically in the range of 21-100 in MD.)*

Habitats and Species of Management Concern: The eastern edge of the stand fronts on the Toliver Trail which also runs through the edge of the Toliver Run ESA. This ESA is associated with the bog and headwater stream drainages of Toliver Creek. The ESA provides habitats for various threatened and endangered plants and animals largely associated with the bog community. Species of concern include Mountain Earth Snake, and Coal Skink. The ESA also serves as a deer wintering area. A maintained wildlife opening is also located along the edge of the stand and the ESA.

Within the body of the surrounding stand, several remnant native Red Spruce and a few, very rare native Balsam Fir trees and seedlings were discovered during the inventory. The very few Balsam Fir are all that is left of an approximately 1 acre isolated pole stand that had gone undiscovered and has recently died out; as evidenced by numerous dead, down and decaying on the forest floor.

Water Resources: This stand has a southern aspect and drains toward Toliver Creek, within the Youghiogeny River Watershed

Recreation Resources: The opening fronts on the “Toliver Trail”. The maintained wildlife opening provides additional wildlife habitat diversity and offers additional hunting opportunities.

Soil Resources: The underlying soils include: ‘Cookport and Ernest very stony silt loams’ on 0-8% slopes. These soils are generally moderately deep and range from moderately well drained to somewhat poorly drained. They have moderate equipment limits because water table is close to the soil surface in winter and early in spring. The western edge of the stand is underlain with “Brinkerton and Andover very stony silt loams” These soils in addition to being very stony, are poorly drained to very poorly drained and are wet much of the time. In fact some areas can be seasonally flooded. Slopes range from level to 15% . Both of the dominant soils in the stand are considered to be very good productivity with site index for oak and cherry ranging 75-85, though they can be difficult to work in due to wetness.

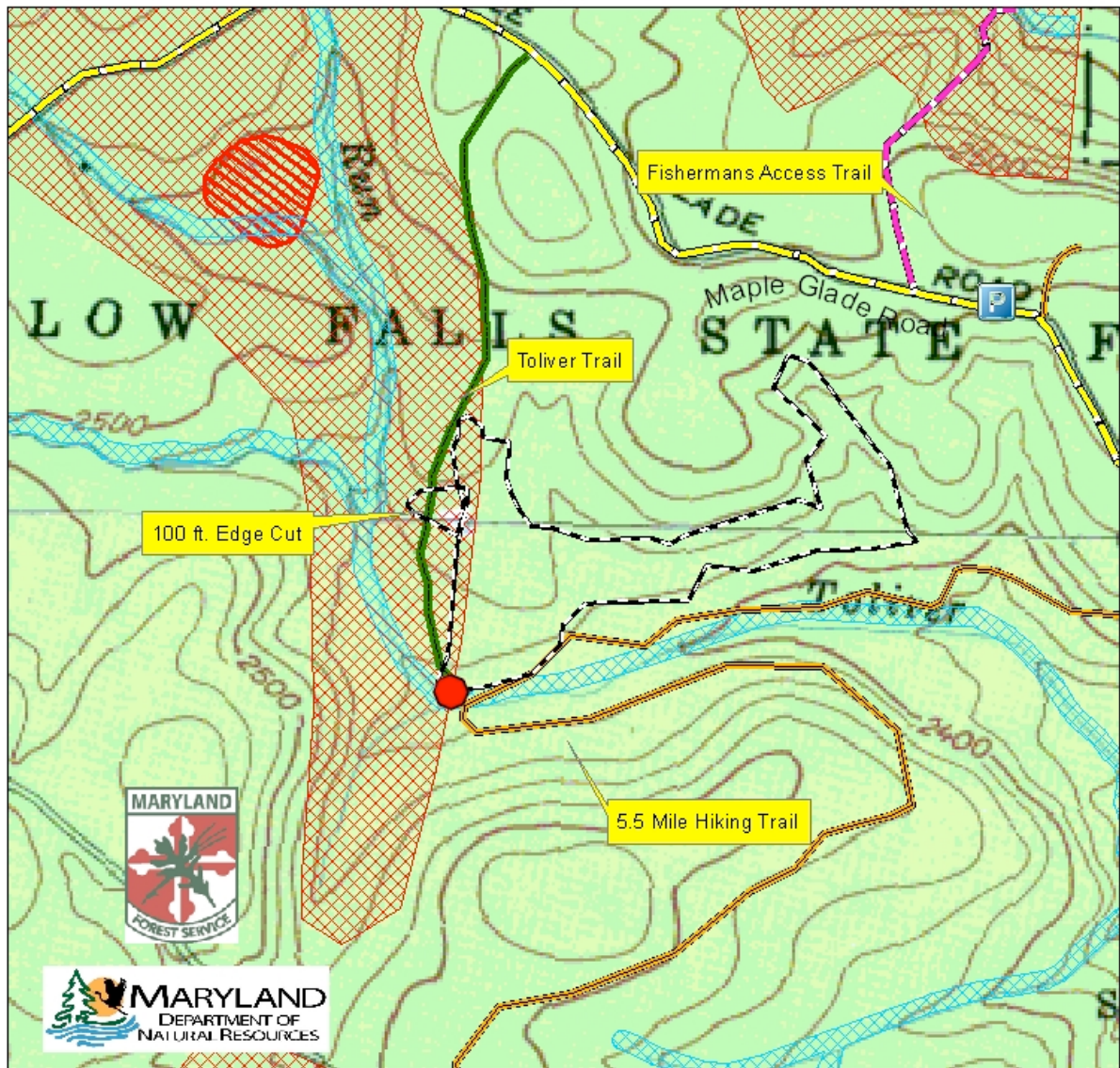
Management and Silvicultural Recommendations

An ‘edge cut’ will be carried out around the perimeter of the field. The field edge will clear cut back 100 feet from the field to create a ‘soft edge’ of early successional habitat while removing much of the shade from this small opening. Trees greater than 8” will be harvested and removed, while leaving all top wood as ‘high tops’ to limit deer browse. Trees ≤8” will be hinge cut to provide, coarse woody debris cover, sprout material, and low growing tops for forage.

Following the harvest, the field will be limed, fertilized, and reseeded with a grass, forbs and legume mix that will serve as a quality food source that will be beneficial to a wide range of wildlife species.

The completed project will provide an important food source for a variety of wildlife species including grouse, turkey, deer and a variety of non-game species. The work is consistent with the management plans of improving the early succession values associated with this opening by softening the edge to improve nesting and escape cover.

Compartment 41 Stand 8 FY-18



Stand Acres.....	33
Treatable Acres.....	20
Forest Type.....	Allegheny Hardwood
Basal Area.....	137
BA AGS.....	80
Stocking.....	80%
Site Index.....	65 for Black Cherry
Composition.....	Black Cherry 40%
	White Oak 21%
	Red Maple 21%

0 265 530 1,060 1,590 2,120 Feet

Proposed Area

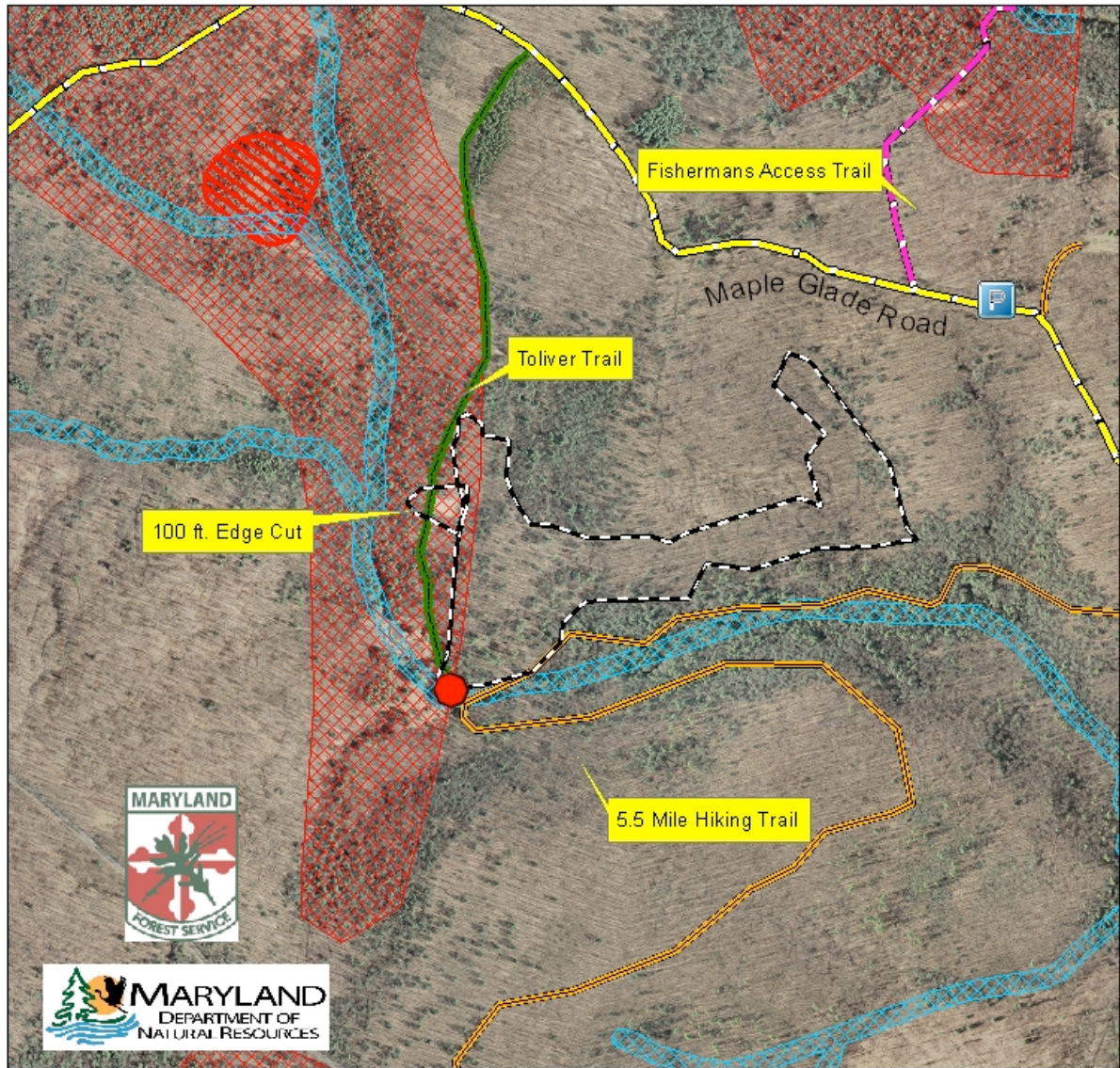
HCVF Components

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

79°26'26.643"W 39°29'58.426"N



Compartment 41 Stand 8 FY-18



Stand Acres.....	33
Treatable Acres.....	20
Forest Type.....	Allegheny Hardwood
Basal Area.....	137
BA AGS.....	80
Stocking.....	80%
Site Index.....	65 for Black Cherry
Composition.....	Black Cherry 40%
	White Oak 21%
	Red Maple 21%

0 265 530 1,060 1,590 2,120 Feet

Proposed Area

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

79°26'26.643"W 39°29'58.426"N



X. Silvicultural Proposals

COMPARTMENT 32 Stand 8

FY-18

Description/Resource Impact Assessment

Location: This area is located on the Snaggy Mountain Complex in Compartment #32 Stand 8 of the Garrett State Forest. It is situated on east side of Snaggy Mountain Snowmobile Trail, approximately 0.8 miles south of the intersection of the Snowmobile Trail and the Snaggy Mt. Road at Campsite # 8 (shelter site).

Forest Community Type and Condition: This 28-acre site contains an immature, 85 year old mixed oak stand. The over story is made up primarily of White Oak (45%)Scarlet Oak (18%), Red Maple (16%) and Black Cherry (14%). This stand is over stocked at 108% relative density and 136 sq.ft. BA/acre. Typical of such heavily overstocked, unmanaged, stands there is little or no established desirable regeneration present.

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 plant competition is moderate, with 24% of the stand having tall woody interference, 27% supporting interfering levels of dense ferns, and 36% of the stand containing low woody interference, primarily dewberry. No non-native invasive species (NNIS) were observed in the stand inventory.

Historic Conditions: This site, like most of PGSF, was likely cutover and burned around the turn of the 20th century. In recent time, this stand has not been entered. The stand was sprayed for Gypsy Moth suppression in 1989, 90 and 91. There is no forest pest or significant disease present, and no evidence of recent fire activity was observed during the recon.

Rare, Threatened and Endangered Species: The stand sits upslope and 500 feet east of HC VF (High Conservation Value Forest). This HC VF includes an Ecologically Significant Area known as the Pronghorn Swamp. The area includes 'Wetlands of Special State Concern' and provides protection to a number of threatened and endangered plants and animals. The stand does not drain into the Pronghorn Swamp, but rather to the unnamed tributary that drains the swamp. The Forest Manager knows of no rare, threatened or endangered species on the site or impacted by the silvicultural prescription.

Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.

Water Resources: This ridge top site drains toward an unnamed tributary of Herrington Creek that flows out of the Pronghorn Swamp and is part of the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all required protective riparian buffers of the wetlands and streams.

Recreation Resources: The stand borders part of the 5.9 mile long Snaggy Mountain Snowmobile Trail. The trail serves as part of the multiple–use trail network on the Garrett State Forest. This section of trail joins the Snaggy Mountain Road at campsite #8 (shelter site).

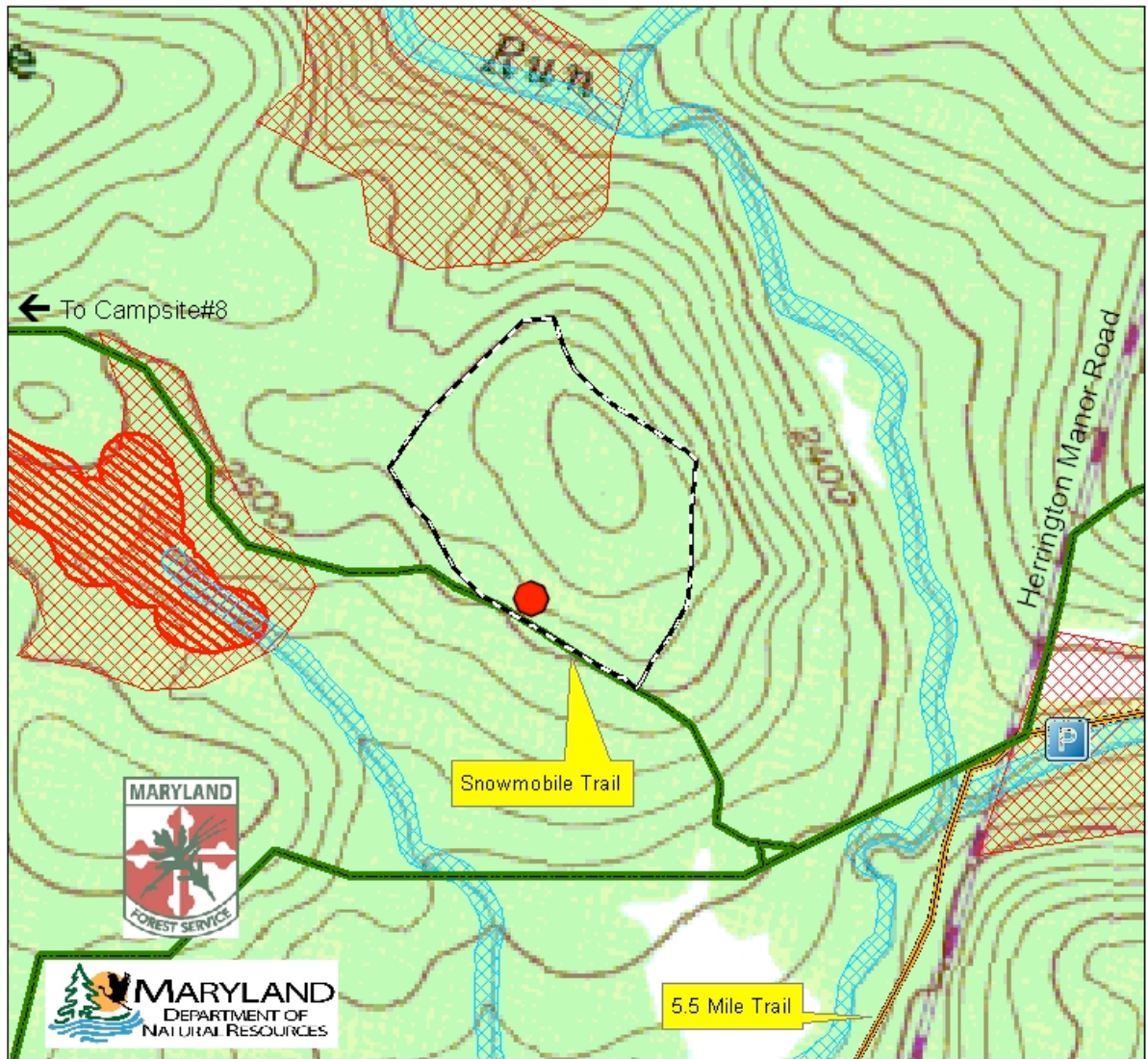
Soil Resources: Underlying soils include: ‘Dekalb and Gilpin very stony loams’. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils, with moderate equipment limits because water table is close to the soil surface in winter and early in spring. Degree of slope ranges from 0-25% throughout the site. The site has very good productivity for woodland management, with a site index of 65-75 for upland oaks.

Management and Silvicultural Recommendations

The planned silvicultural treatment for this site is a commercial thinning. The objective of this thinning is to reduce the stocking level to approximately 65% relative density by applying a free thinning throughout the stand. This practice will remove 80% the unacceptable merchantable growing stock thereby improving the vigor and health of the residual trees. Approximately, 90 sq. ft. of basal area per acre is the target for the residual stand providing a harvest of approximately 1,800-2,000 Bd. Ft. per acre. 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. (Note this commercial harvest will be combined with the work planned for the nearby stand #32-33, as approved in the FY-17 AWP.) The area should be examined again in 10 years to begin planning for a regeneration harvest.

For the safety of trail users and the contractors carrying out the work, during the harvest, the effected sections of the trail will be posted and closed, with visitors being redirected to other trails in the area. Notice will be posted at affected trail heads as well as on the MD Forest Service website and the State Forest web page.

Compartment 32 Stand 8 FY-18



Stand Acres.....	28
Harvestable Acres.....	25
Forest Type.....	Mixed Oak
Basal Area.....	136
BA AGS.....	76
Stocking.....	108%
Site Index.....	60 for WO
Composition.....	White Oak 45%
	Scarlet Oak 18%
	Red Maple 16%

0 215 430 860 1,290 1,720
Feet

Proposed Area

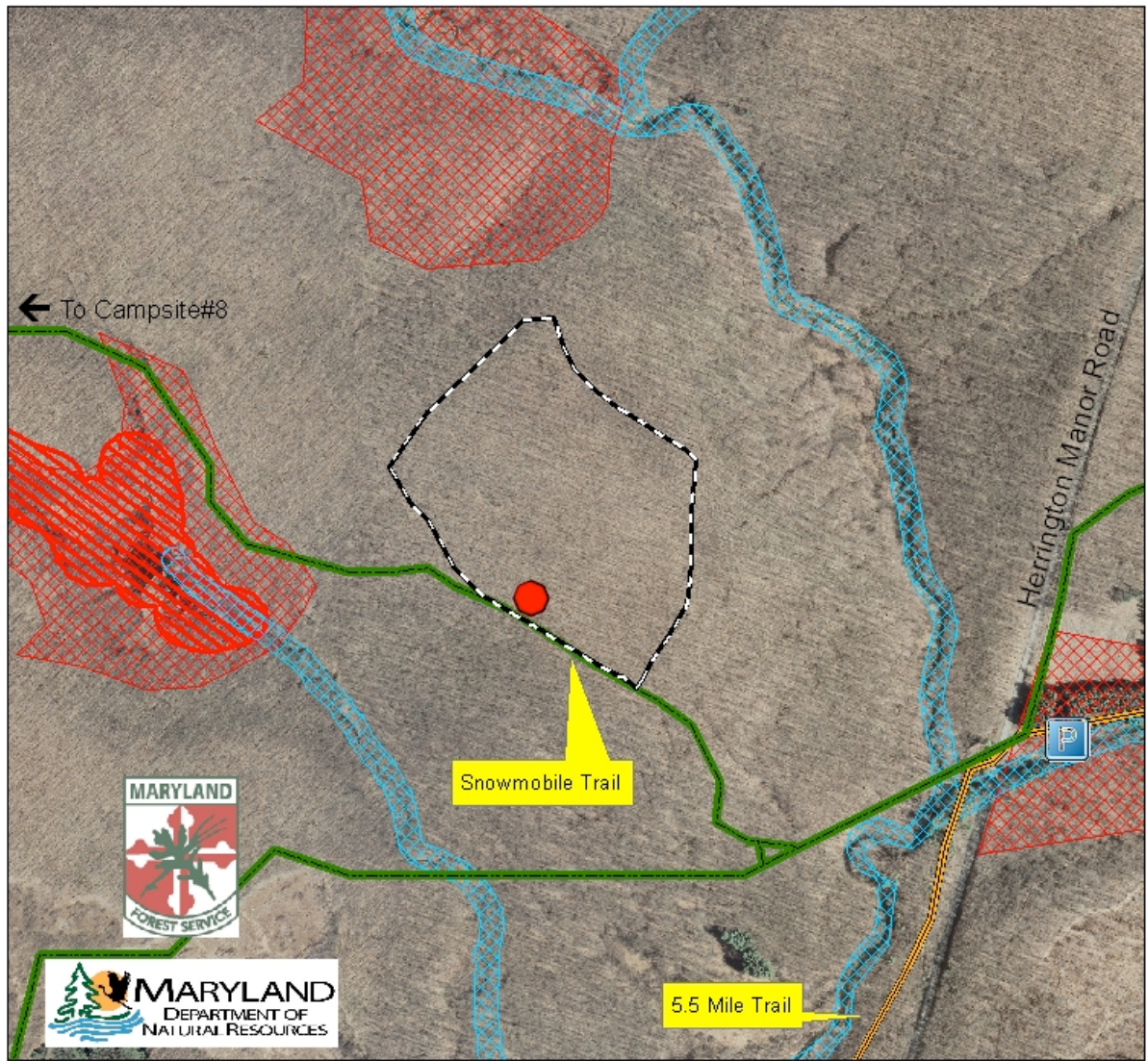
HCVF Components

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

79°27'4.431"W 39°27'58.139"N



Compartment 32 Stand 8 FY-18



Stand Acres.....	28
Harvestable Acres.....	25
Forest Type.....	Mixed Oak
Basal Area.....	136
BA AGS.....	76
Stocking.....	108%
Site Index.....	60 for WO
Composition.....	White Oak 45%
	Scarlet Oak 18%
	Red Maple 16%



Proposed Area

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

79°27'4.431"W 39°27'58.139"N



Description/Resource Impact Assessment

Location: This area is located on the Snaggy Mountain Complex in Compartment #32 Stand 9 of the Garrett State Forest. It is situated on south-west side of Snaggy Mountain Snowmobile Trail, approximately 0.7 miles south of the intersection of the Snowmobile Trail and the Snaggy Mt. Road at Campsite #8 (shelter site).

Forest Community Type and Condition: This 41-acre site contains an over-mature, 115 year-old Allegheny Hardwoods stand. The overstory is made up primarily of Black Cherry (65%), White Oak (16%) and Red Maple (12%) The stand has sustained excessive storm damage from the October 2012 “Super Storm Sandy” and is in poor condition. Black Knot, a stem canker disease common to Cherry, caused by the fungus *Apiosporina morbosa*, is prevalent throughout the stand and has resulted in numerous dead and dying trees, many of which failed and snapped off under the weight of the heavy wet snow during the October 2012 storm. This stand is moderately stocked at 69% relative density and 138 sq.ft. BA/acre, with an average merchantable diameter of 17 inches. Despite the rather open overstory condition of the stand, there is little or no established desirable regeneration present due largely to the significant amount of interfering elements restricting seedling development. While there is minimal regeneration present, there are oak seedlings that should be given consideration when addressing the interfering vegetation.

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 is considerable with 40% of the stand having tall woody interference, that should not be considered as regeneration / sprout potential; 51% of the stand contains interfering levels of dense ferns; and 83% of the stand contains problematic low woody interference, in the form of a robust population of ground covering Dewberry. Non-native invasive species were not observed during the inventory.

Historic Conditions: This site, like most of PGSF, was likely cutover and burned around the turn of the 20th century. In recent time, this stand has not been entered. The stand was sprayed for Gypsy Moth suppression in 1989,90 and 91. There were no forest pests identified during the inventory. Black Knot, a stem canker disease common to Cherry, is prevalent through out the stand and has resulted in numerous dead and dying trees, many of which failed and snapped off under the weight of the heavy wet snow during the October 2012 storm.

Rare, Threatened and Endangered Species: The stand fronts HCVF (High Conservation Value Forest) on its southwest side. This HCVF includes an ESA (Ecologically Significant Area) known as the Pronghorn Swamp as well as the riparian buffer to the un-named tributary draining out of the swamp. The ESA includes ‘Wetlands of Special State Concern’ and provides protection to a number of threatened and endangered plants and animals. The Forest Manager knows of no rare, threatened or endangered species on the site or impacted by the silvicultural prescription.

Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.

Water Resources: This stand drains toward the Pronghorn Swamp and the unnamed tributary of Herrington Creek that flows out of the Pronghorn Swamp all within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all required protective riparian buffers of the wetlands and streams; reducing the actively managed acreage from 41 acres to 35 acres.

Recreation Resources: The Snaggy Mountain Snowmobile Trail fronts much of the stand boundary, and in fact runs through the center of the northern most section of the stand. The trail serves as part of the multiple-use trail network on the Garrett State Forest. This section of trail joins the Snaggy Mountain Road at campsite # 8 (shelter site).

Soil Resources: Underlying soils include: ‘Dekalb and Gilpin very stony loams’ with ‘Cookport and Ernest very stony silt loams’ on the lower slopes. These soils are generally moderately deep and well drained with inclusions of some poorly drained soils, with moderate equipment limits because the 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 good to very good productivity for woodland management, with a site index of 65-75 for upland oaks over most of the stand, and site indexes of 75+ found along the lower slopes.

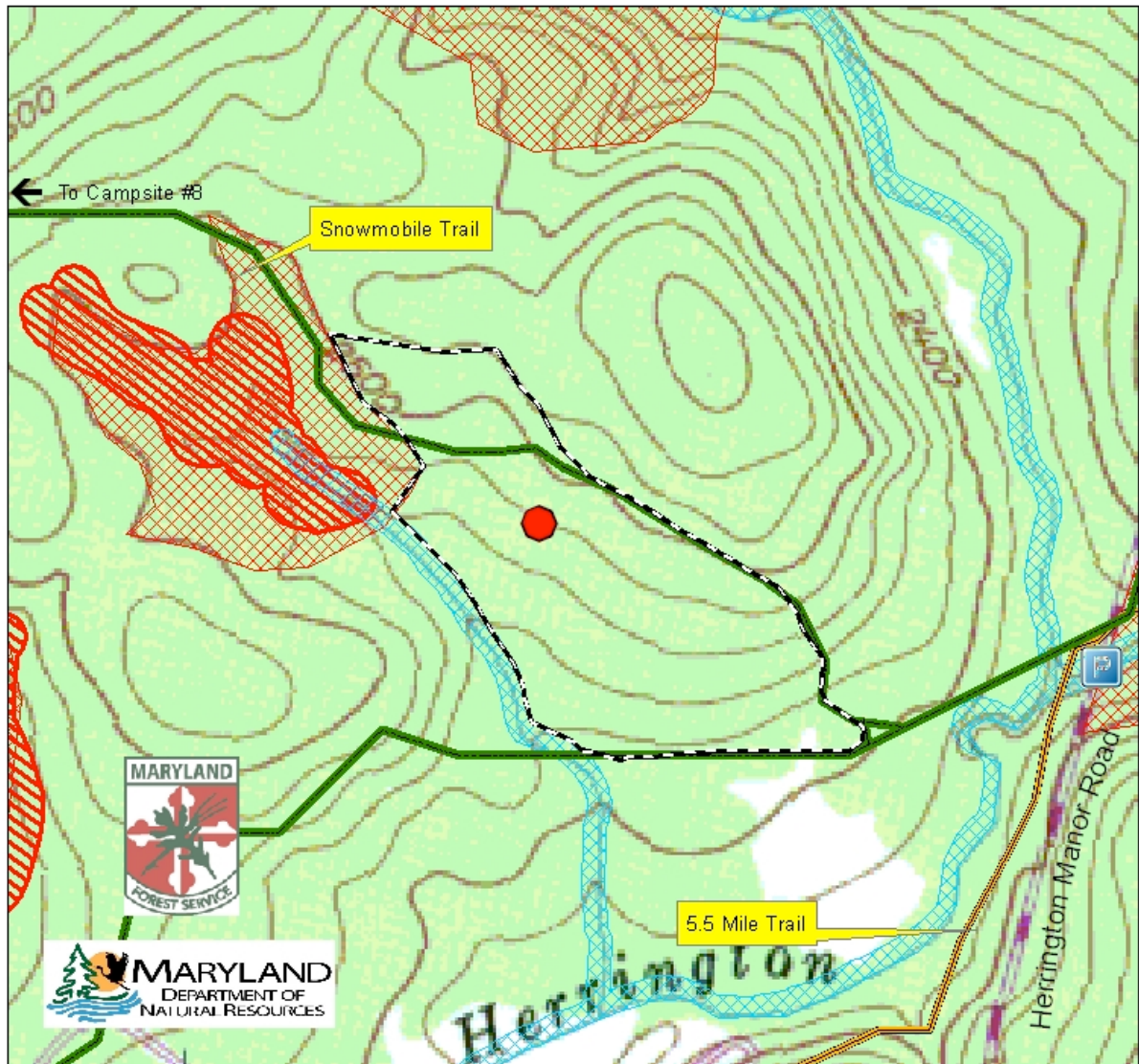
Management and Silvicultural Recommendations

Begin the regeneration process now by providing suitable conditions for seedling establishment. The moderate stocking level of the overstory is allowing enough sunlight to filter through the canopy. However, this light is not reaching the forest floor as it is intercepted by the tall woody and low woody interference; tall woody being poles and saplings much of which are bent horizontally by the storm, and the low woody being the excessively thick mat of dewberry covering the forest floor. These interfering plants will be controlled with targeted herbicide applications. The Dewberry and problematic fern cover will be treated with a foliar application of an appropriate herbicide, using broadcast spraying methods. (Pending the condition of the few ‘new and established oak’ seedlings at time of treatment, the herbicide utilized may lean toward a Sulfometuron-methyl based product such as “Oust”, without surfactant to prevent damage to the limited, existing oak seedlings present.) This work will be carried out between July 1st and August 31st, to assure optimum fern control within the broader control calendar for the Dewberry. The control of the invasive Dewberry and fern cover should not only allow for the development of desired tree seedlings, but will also provide conditions for the regeneration and establishment of other desirable herbaceous plants displaced by these invasives. The interfering tall woody material 4 inches DBH and smaller will be treated with an appropriate herbicide using direct application to cut surface treatments, ‘hack and squirt / frill’ techniques or basal bark applications. Those stems less than 15 ft tall may be treated with the foliar application noted above.

For the safety of trail users and the contractors carrying out the work, while the foliar spray treatments are being carried out, the effected sections of the snowmobile trail will be

posted and closed, with visitors being redirected to other trails in the area. All treatments will run to the trails edge. Following these treatments, the stand will be monitored for regeneration establishment. Once the stand is fully stocked with acceptable seedlings, (approx. 5-8 years) a final harvest will release the now competitive seedlings from overhead competition to fully regenerate the site.

Compartment 32 Stand 9 FY-18



Proposed Area

Stand Acres.....	41
Treatable Acres.....	35
Forest Type.....	Allegheny Hardwood
Basal Area.....	138
BA AGS.....	72
Stocking.....	69%
Site Index.....	65 for BC
Composition.....	Black Cherry 65%
	White Oak 16%
	Red Maple 12%

HCVF Components

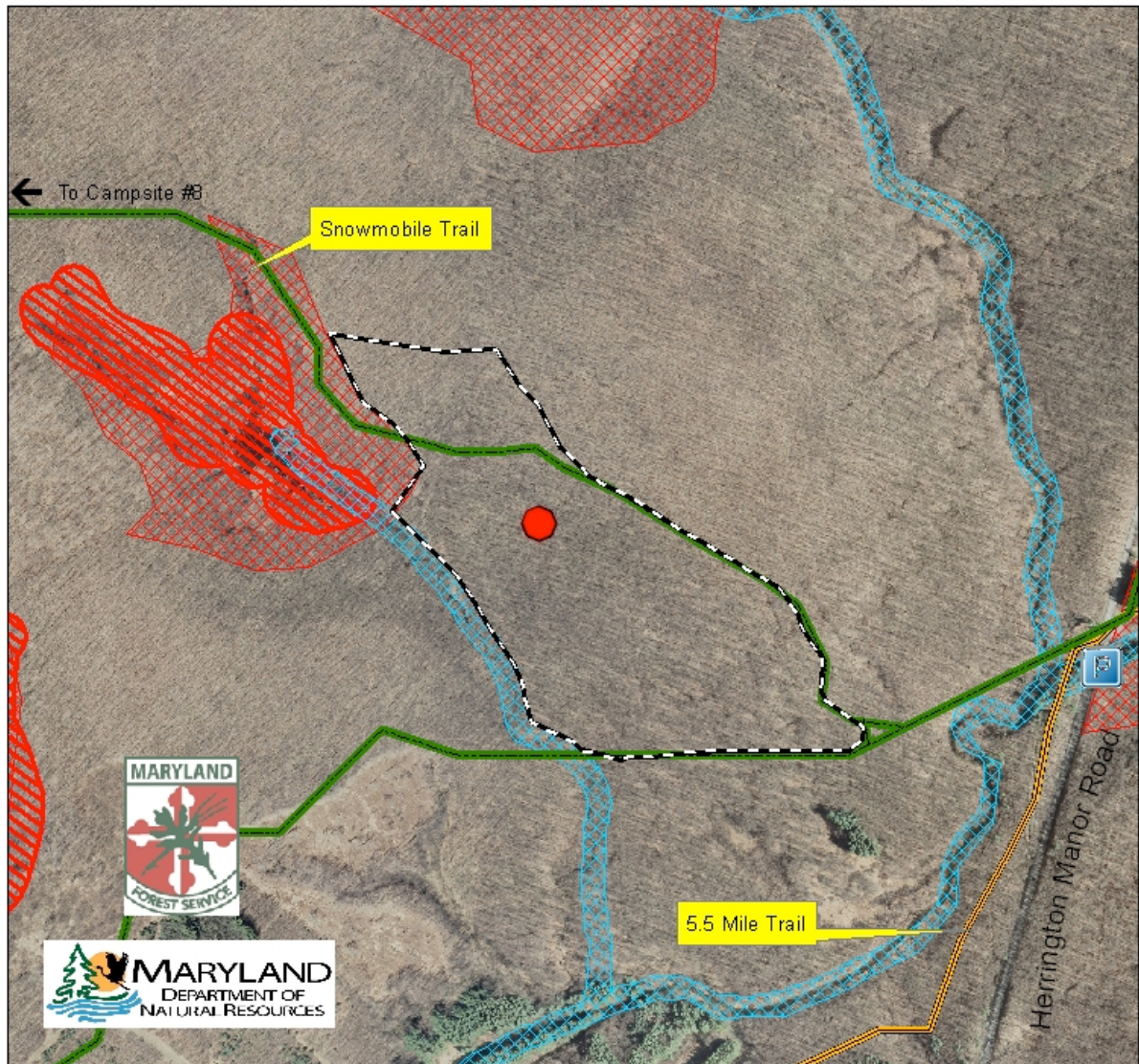
- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

0 215 430 860 1,290 1,720
Feet

79°27'10.297"W 39°27'55.711"N



Compartment 32 Stand 9 FY-18



Stand Acres.....	41
Treatable Acres.....	35
Forest Type.....	Allegheny Hardwood
Basal Area.....	138
BA AGS.....	72
Stocking.....	69%
Site Index.....	65 for BC
Composition.....	Black Cherry 65%
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0 215 430 860 1,290 1,720 Feet

Proposed Area

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

79°27'10.297"W 39°27'55.711"N



Description/Resource Impact Assessment

Location: This area is located on the Snaggy Mountain Complex in Compartment #32 Stand 18 of the Garrett State Forest. It is situated along the east side of Snaggy Mountain Snowmobile Trail, approximately 1 mile south of the intersection of the Snowmobile Trail and the Snaggy Mt. Road at Campsite # 8 (shelter site).

Forest Community Type and Condition: This 29-acre site contains a mature, 95 year old Allegheny Hardwoods stand. The overstory is made up primarily of Black Cherry (64%), White Oak (18%) and Northern Red Oak (7%). The stand has sustained excessive storm damage from the October 2012 “Super Storm Sandy” and is in poor condition. Black Knot, a stem canker disease common to Cherry caused by the fungus *Apiosporina morbosa*, is prevalent through out the stand and has resulted in numerous dead and dying trees, many of which failed and snapped off under the weight of the heavy wet snow in early 2012. The stand is only fully stocked at 71% relative density and 138 sq.ft. BA/acre; of which only 28 sq. ft BA are considered to be acceptable growing stock. Despite the rather open overstory condition of the stand, there is very little established desirable regeneration present; this is due to the significant amount of interfering elements restricting seedling development. While there is minimal regeneration present, there are oak seedlings that should be given consideration when addressing the interfering vegetation.

Interfering Elements: With this stands close proximity to Herrington Manor State Park where there is no hunting allowed, deer impacts on the forest in this area are considered to be moderate to high and must be addressed when considering regeneration efforts on this site. Interfering plant competition is high, with 45% of the stand having tall woody interference (with 1/3 of this attributed to otherwise desirable Red Maple saps and poles being bent horizontal by the wet snow storm in 2012), 45% supporting interfering levels of dense ferns, and 73% of the stand containing low woody interference, primarily a robust population of dewberry. Non-native invasive species (NNIS) observed in the stand inventory include Japanese Barberry and Multiflora Rose, and were observed on approximately 1/3 of the site and Japanese stilt-grass is growing along the snowmobile trail.

Historic Conditions: This site, like most of PGSF, was likely cutover and burned around the turn of the 20th century. In recent time, this stand has not been entered. The stand was sprayed for Gypsy Moth suppression in 1989, 90 and 91. There were no forest pests identified during the inventory. Black Knot, a stem canker disease common to Cherry, is prevalent through out the stand and has resulted in numerous dead and dying trees, many of which failed and snapped off under the weight of the heavy wet snow during the October 2012 storm.

Rare, Threatened and Endangered Species: The stand sits upslope and 200 feet west of the nearest HCVF (High Conservation Value Forest) with the 2 lane County Road (Herrington Manor Road) separating the sites. This HCVF includes an Ecologically Significant Area known as the Herrington Springs ESA. The area provides protection to a number of threatened and endangered plants, as well as a rare amphipod. The HCVF also offers a Deer Wintering Area and

managed wildlife openings. The Forest Manager knows of no rare, threatened or endangered species on the site or impacted by the silvicultural prescription.

Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.

Water Resources: This ridge top site drains toward an unnamed tributary of Herrington Creek within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all required protective riparian buffers of wetlands and streams.

Recreation Resources: The stand fronts part of the 5.9 mile long Snaggy Mountain Snowmobile Trail. There are 2 failing culverts in the snowmobile trail that will be replaced by state forest staff to facilitate access to the stand and fence construction.

Soil Resources: The western half of the sites underlying soils include: 'Dekalb and Gilpin very stony loams' on 0-25% slopes. 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. The eastern half of the stands underlying soils are 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 0-15% throughout the site. Equipment limits range slight to moderate as slopes approach 25%. Hazard of erosion is slight to moderate on the steeper slopes. Overall, the site has good productivity for woodland management, with a site index of 60-75 for upland oaks.

Management and Silvicultural Recommendations

The management goals for this stand are; salvage the remaining timber value; regenerate this very poor conditioned stand; and reduce the populations of invasive plants (both non-native and native invasive); and provide suitable conditions for the establishment of a healthy and vigorous young forest that will fully occupy this rich growing site.

To that end, the poor condition timber will be harvested using a clearcut with variable retention. Our 5%, on site, green tree retention requirement will be met by retaining nearly 20% of the stand in the various buffers along the numerous small drains along the lower slopes. This harvest will involve the cutting of the majority of the overstory trees on the balance of the stand. Along with the trees within stream / drainage buffers, any live cavity /den trees and the occasional large cull tree will be retained to offer additional habitat elements in the new, young stand. All other hardwood trees greater than 2 inches DBH shall be cut. Cutting down to 2" will assure that those trees now growing bent over, horizontal after Super Storm Sandy, will be allowed the opportunity sprout and send up new, vertical shoots to contribute to the slow restoration of this storm damaged stand. The timber will be skidded out to the north over Brier Ridge to the Snaggy Mountain Road.

Prior to the harvest, the problematic Dewberry and fern cover, as well as the non-native invasive Japanese Barberry and Multiflora Rose, will be treated with a foliar application of an appropriate herbicide, using ground directed broadcast spraying methods in order to lessen the

impact on the bent over trees, that we wish to cut later for their stump sprout contributions. (Pending the condition of the few “new oak” seedlings at time of treatment, the herbicide utilized may lean toward a Sulfometuron-methyl based product such as “Oust”, without surfactant to prevent damage to the limited, existing oak seedlings present.) This work will be carried out between July 1st and August 31st, to assure optimum fern control within the broader control calendar for the Dewberry, Barberry and Rose. The control of the invasive ground cover should not only allow for the development of desired tree seedlings, but will also provide conditions for the regeneration and establishment of other desirable herbaceous plants displaced by these invasive plants.

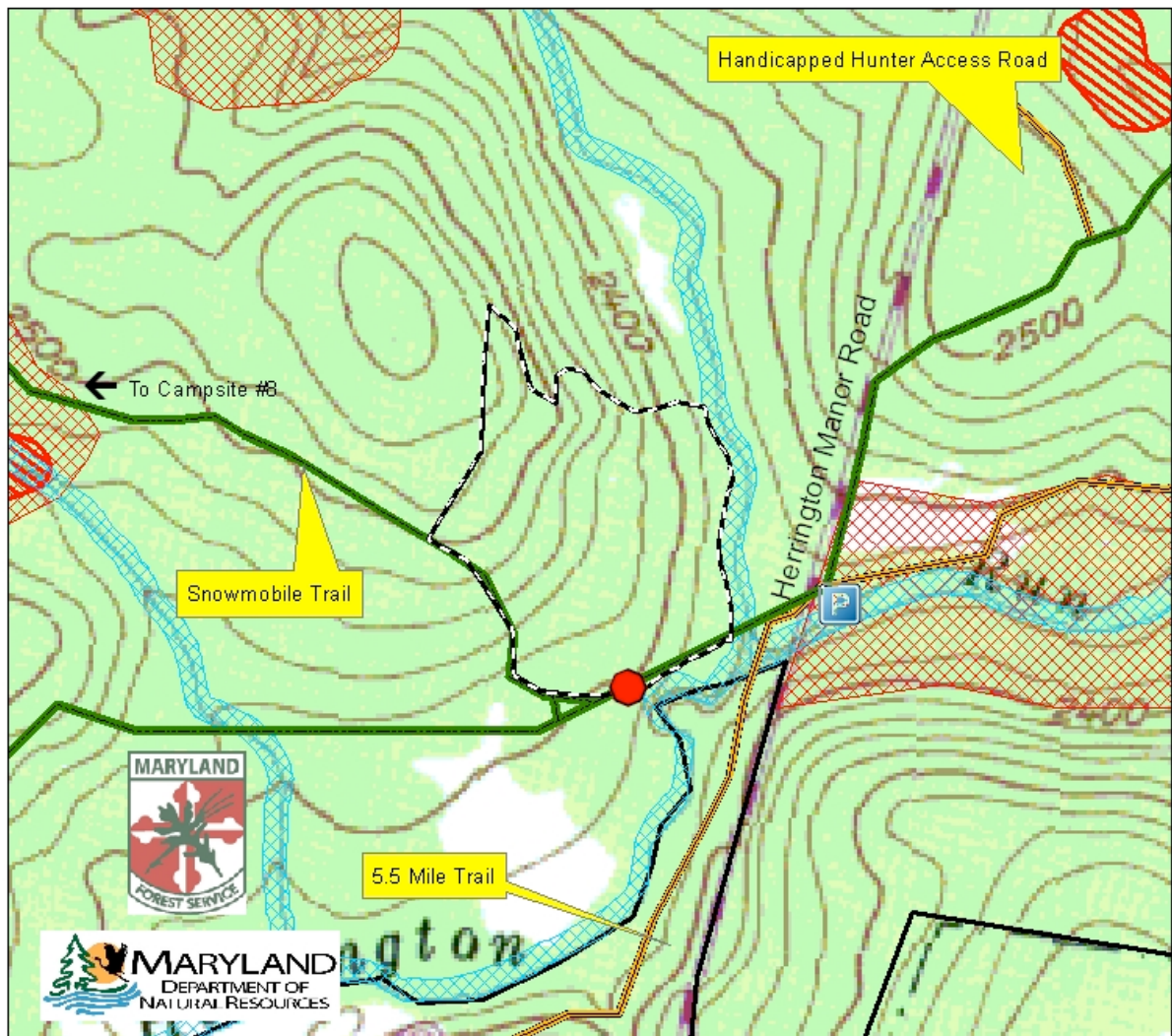
The moderate to high deer pressure will be addressed by using deer exclosure fencing to protect developing seedlings. The stand will be fenced to prevent deer from eating acorns and developing seedlings until sufficient seedlings are established to a size that will withstand the deer pressure. As seedling development progresses, additional harvests will be carried out as needed to provide the necessary release. Once the stand is successfully established, the fencing will be removed to allow deer and other wildlife to take full advantage of the early successional habitat created by this management approach.

All treatments will be carried out to the edge of the trail. The stilt grass in the trail bed will not be sprayed. For the safety of trail users and the contractors carrying out the work, during the harvest, herbicide applications, and fencing work, the effected sections of the trails will be posted and closed, with visitors being redirected to other trails in the area. Notice will be posted at affected trail heads as well as on the MD Forest Service website and the State Forest web page.

Delaying this harvest will likely result in increased mortality and further loss of timber value in this poor condition stand; continued growth of unhealthy and un-merchantable (bent over) trees; and increased spread of invasive understory plants further displacing the native forest plant community and its ability to regenerate itself.

Timing of this work will be tightly restricted in order to effectively carry out this challenging regeneration program. The ground directed, broadcast foliar spraying of herbicide will be contracted to be carried out July 1, 2018 - August 31, 2018, taking care to limit contact with the storm damaged hardwood saplings that will later be cut to contribute to our regeneration effort. The harvest, will be scheduled to begin 2 weeks after the herbicide treatments completion (September – March); culvert installation will take place prior to fence construction, this work may be carried out as part of our routine trail maintenance work in 2017 in order to deal with stream closure restrictions that may be in place. Fence construction will begin immediately after harvest, to be completed by May 1st, in order to be in place by beginning of the first growing season after harvest, to maximize regeneration potential by protecting our new stump sprouts and developing seedlings.

Compartment 32 Stand 18 FY-18



Stand Acres.....	29
Harvest Acres.....	23
Forest Type.....	Allegheny Hardwood
Basal Area.....	138
BA AGS.....	28
Stocking.....	71%
Site Index.....	65 for Black Cherry
Composition.....	Black Cherry 64%
	White Oak 18%
	Red Oak 7%

Proposed Area

HCVF Components

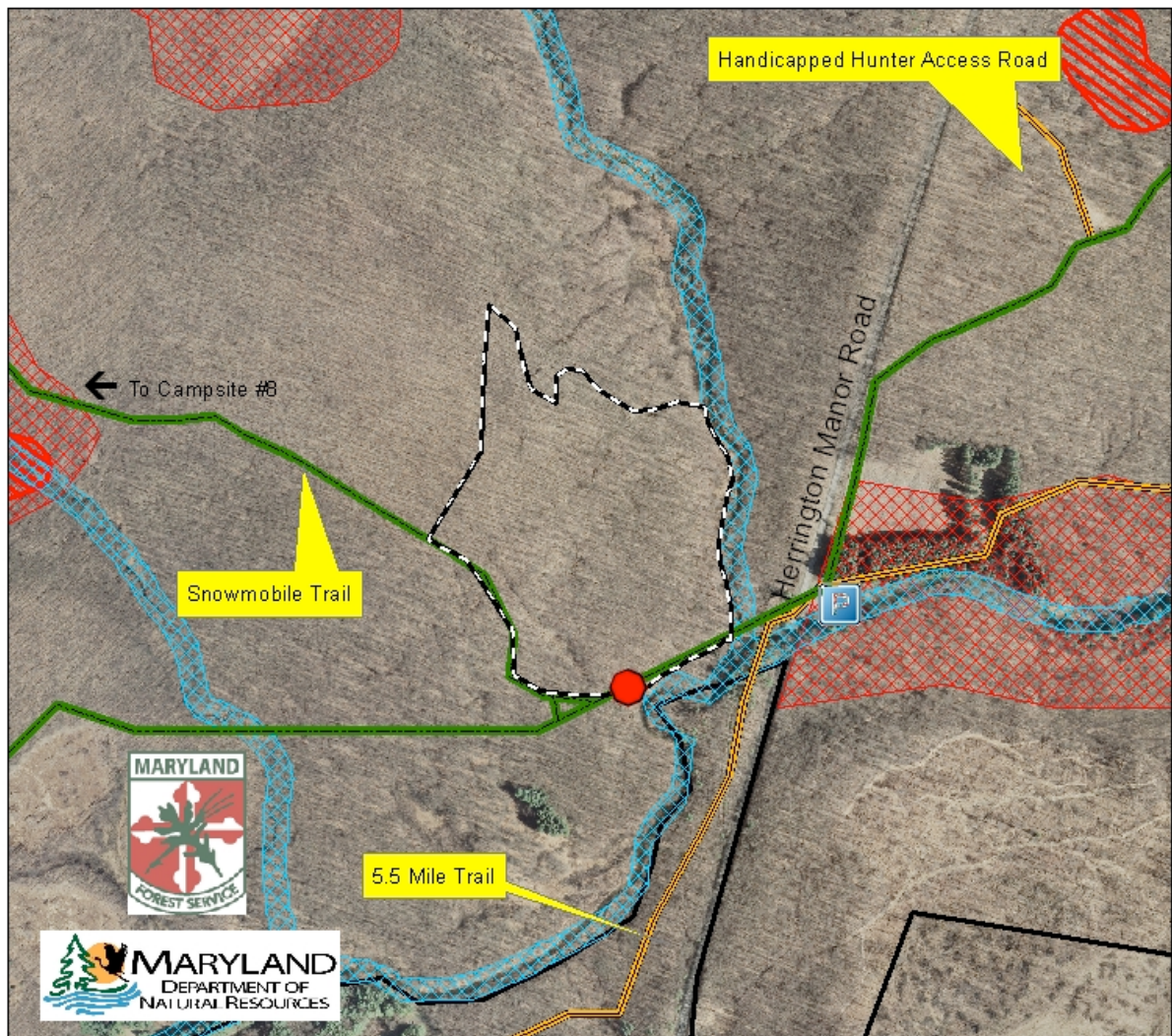
- Wildlands
- Ecologically Significant Area
- Old Growth w/300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

0 215 430 860 1,290 1,720
 Feet

79°26'48.091"W 39°27'49.456"N



Compartment 32 Stand 18 FY-18



Stand Acres.....	29
Harvest Acres.....	23
Forest Type.....	Allegheny Hardwood
Basal Area.....	138
BA AGS.....	28
Stocking.....	71%
Site Index.....	65 for Black Cherry
Composition.....	Black Cherry 64%
	White Oak 18%
	Red Oak 7%

 Proposed Area

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

0 215 430 860 1,290 1,720
 Feet

 79°26'48.091"W 39°27'49.456"N



Description/Resource Impact Assessment

Location: This area is located on the Snaggy Mountain Complex in Compartment #33 Stand 2 of the Garrett State Forest. This site is accessed by way of the Handicapped Hunter Access Road on the east side of Herrington Manor Rd. The stand lies between the Snaggy Mountain Snowmobile Trail and the 5 ½ mile Hiking Trail.

Forest Community Type and Condition: This 38-acre site contains an over-mature, 105 year old Allegheny Hardwoods stand made up primarily of Black Cherry (58%), White Oak (22%) and Red Maple (16%). The stand has sustained excessive storm damage from the October 2012 “Super Storm Sandy” and is in poor condition. Black Knot, a stem canker disease common to Cherry, and caused by the fungus *Apiosporina morbosus*, is prevalent throughout the stand and has resulted in numerous dead and dying trees, many of which failed and snapped off under the weight of the heavy wet snow during the October 2012 storm. The stand is just fully stocked, at 62% relative density and 120 sq.ft. BA/acre; of which only 49 sq.ft. are considered to be acceptable growing stock, therefore there is insufficient acceptable growing stock to warrant continued management of this stand. Despite the rather open overstory condition of the stand, there is very little established desirable regeneration present; this is due to the significant amount of interfering elements restricting seedling development. The minimal oak seedlings present should be given consideration when addressing the interfering vegetation.

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 is considerable; 50% of the stand has tall woody interference, with 1/2 of this attributed to otherwise desirable Red Maple saps and poles being bent horizontal by the wet snow storm in October of 2012. While only 18% of the stand contains interfering levels of dense ferns, a full 100% of the stand contains problematic low woody interference, in the form of a robust population of ground covering Dewberry. Non-native invasive species (NNIS) observed in the stand inventory include Japanese Barberry which was found along the 5 ½ Mile Hiking Trail in the southern half of the stand, and generally in the seeps and drains that will be retained in riparian buffers.

Historic Conditions: This site, like most of PGSF, was likely cutover and burned around the turn of the 20th century. In recent time, this stand has not been entered. The stand was sprayed for Gypsy Moth suppression in 1989, 90 and 91. There were no forest pests identified during the inventory. Black Knot, a stem canker disease common to Cherry, is prevalent through out the stand and has resulted in numerous dead and dying trees, many of which failed and snapped off under the weight of the heavy wet snow during the October 2012 storm.

Rare, Threatened and Endangered Species: The stand sits upslope of the HCVF (High Conservation Value Forest) associated with Herrington Creek and the Herrington Springs ESA (Ecologically Significant Area). The area provides protection to a number of threatened and endangered plants, as well as a rare amphipod. The HCVF also offers a Deer Wintering Area and

managed wildlife openings. The Forest Manager knows of no rare, threatened or endangered species on the site or impacted by the silvicultural prescription.

Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.

Water Resources: This ridge top site drains toward an unnamed tributary of Herrington Creek to the east, and directly to Herrington Creek to the south; within the Youghiogheny River Watershed. There are several spring drains at the toe of the slope. The proposed silvicultural treatments will be outside of all required protective riparian buffers of wetlands and streams reducing the harvestable acreage from 38 acres to 31, or 18%.

Recreation Resources: The stand lies between part of the 5.9 mile long Snaggy Mountain Snowmobile Trail as well as the 5 ½ Mile Hiking trail that joins Herrington Manor and Swallow Falls State Parks through the Garrett State Forest. The stand is accessed by way of the Handicapped Hunter Access Area Road, which contains an existing log landing that has served 3 separate prior harvests.

Soil Resources: The northern / uplands of the sites underlying soils include: 'Dekalb and Gilpin very stony loams' on 0-25% slopes. 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. The lower slopes underlying soils are mapped as "Stony land, steep": These soils are generally moderately deep and well drained with inclusions of some poorly drained soils (hence the spring drains that are mapped to be buffered out.) 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. Overall, the site has good productivity for woodland management, with a site index of 60-75 for upland oaks.

Management and Silvicultural Recommendations

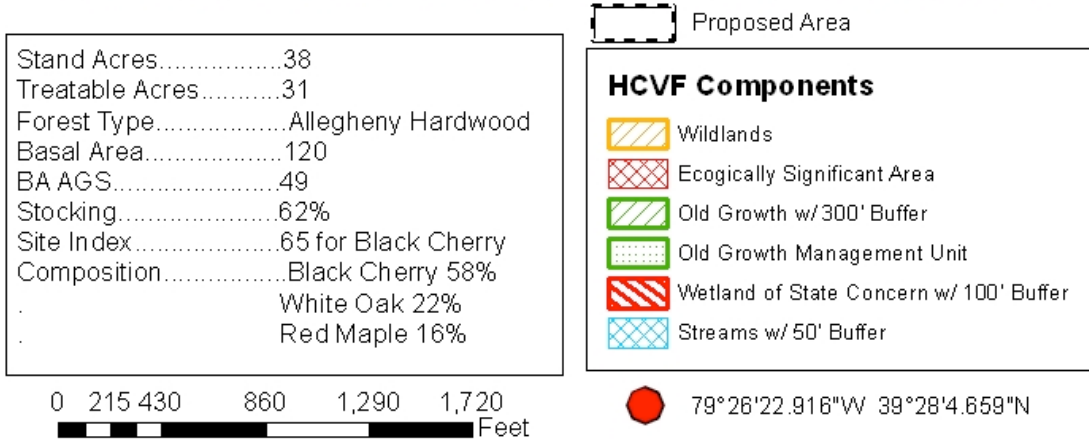
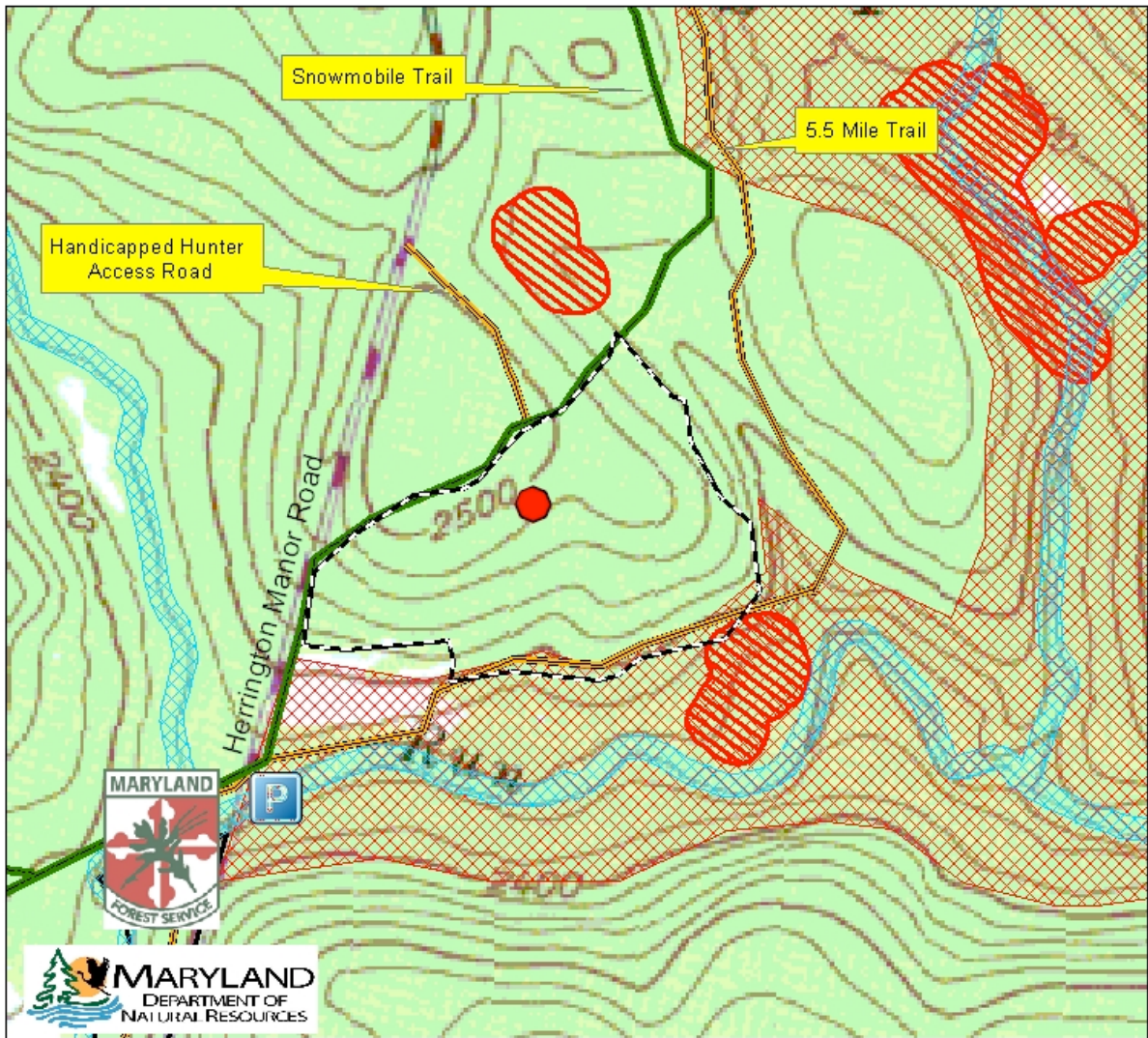
The management goal for this stand is to begin the regeneration process now by providing suitable conditions for seedling establishment. The moderate stocking level of the overstory is allowing enough sunlight to filter through the canopy, however, this light is not reaching the forest floor as it is intercepted by the tall woody and low woody inference; tall woody being poles and saplings much of which are bent horizontally by the storm, and the low woody being the excessively thick mat of Dewberry covering the forest floor. These interfering plants will be controlled with targeted herbicide applications. The Dewberry and problematic fern cover will be treated with a foliar application of an appropriate herbicide, using broadcast spraying methods. (Pending the condition of the few 'new oak seedlings at time of treatment, the herbicide utilized may lean toward a Sulfometuron-methyl based product such as "Oust", without surfactant to prevent damage to the limited, existing oak seedlings present.) This work will be carried out between July 1st and August 31st, to assure optimum fern control within the broader control calendar for the Dewberry. The control of the invasive Dewberry and fern cover should not only allow for the development of desired tree seedlings, but will also provide conditions for the regeneration and establishment of other desirable herbaceous plants displaced

by these invasives. The interfering tall woody material 4 inches DBH and smaller will be treated with an appropriate herbicide using direct application to cut surface treatments, 'hack and squirt / frill' techniques or basal bark applications. Those stems less than 15 ft tall may be treated with the foliar application noted above.

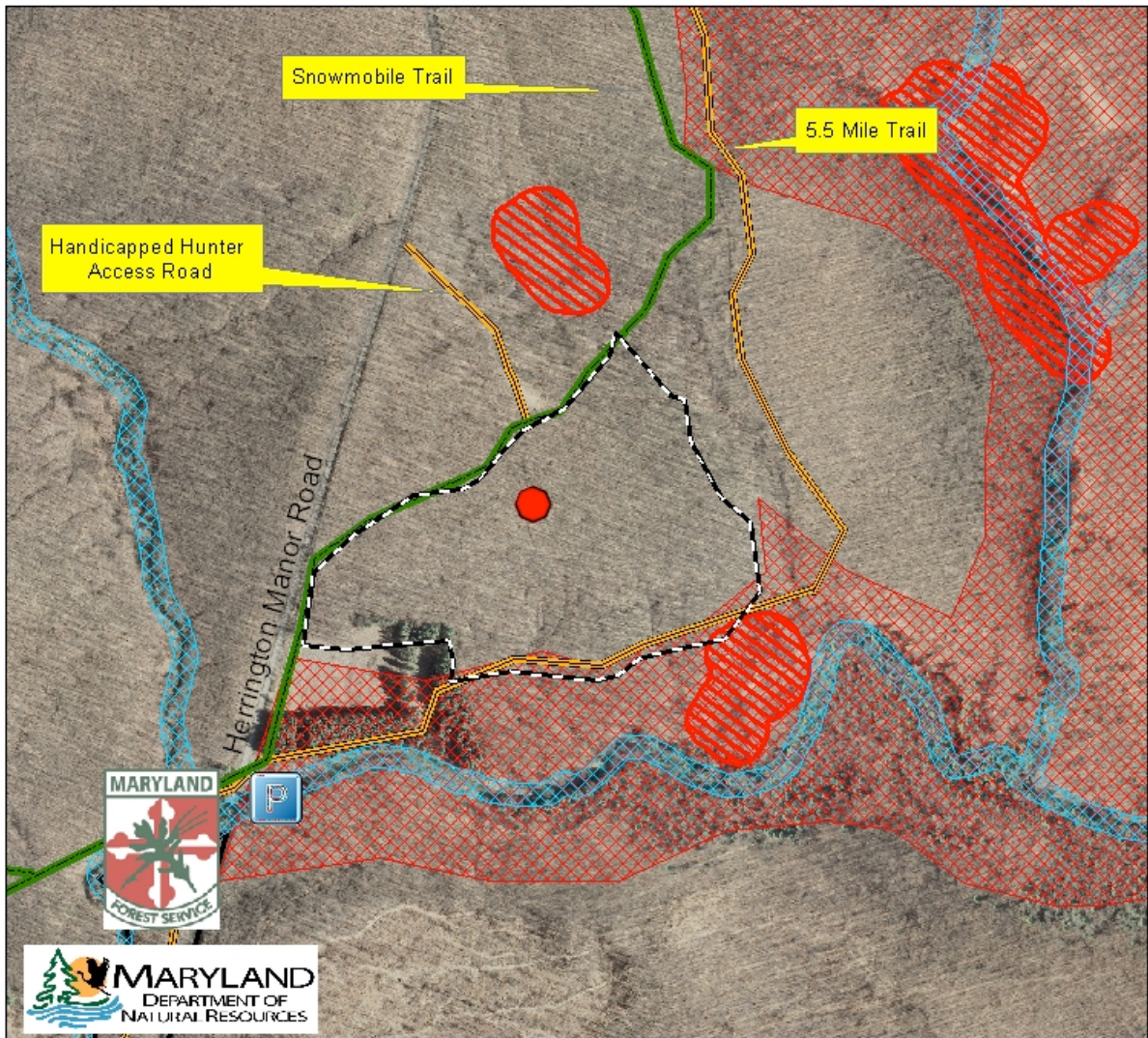
All treatments will be carried out to the edge of the trails. For the safety of visitors, and the contractors carrying out the work, the Handicapped Hunter Access and affected sections of the trails will be posted and temporarily closed, with visitors being redirected to other trails and access areas on the forest.

Following these treatments, the stand will be monitored for regeneration establishment. Once the stand is fully stocked with acceptable seedlings, (approx. 5-8 years) a final harvest will release the competitive seedlings from overhead competition to fully regenerate the site.

Compartment 33 Stand 2 FY-18



Compartment 33 Stand 2 FY-18



Stand Acres.....	38
Treatable Acres.....	31
Forest Type.....	Allegheny Hardwood
Basal Area.....	120
BA AGS.....	49
Stocking.....	62%
Site Index.....	65 for Black Cherry
Composition.....	Black Cherry 58%
	White Oak 22%
	Red Maple 16%

	Proposed Area
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

0 215 430 860 1,290 1,720 Feet

79°26'22.916"W 39°28'4.659"N



Description/Resource Impact Assessment

Location: This area is located on the Snaggy Mountain Complex in Compartment #39 Stand 12 of the Garrett State Forest. It sits on the south side of the ‘5 ½ Mile Hiking Trail’ approximately 0.7 miles from the Trail head parking lot on Cranesville Rd.

Forest Community Type and Condition: This 16-acre site contains an uncommon cover type for the Garrett State Forest; it is a mature, 95 year old mixed oak / white pine stand. The over story is made up primarily of White Oak (46%), Red Maple (27%) and Eastern White Pine (13%). The stand is fully stocked at 92% relative density and 123 sq.ft. BA/acre, of which 103 sq. ft. are acceptable growing stock. Desirable regeneration is present on only 25% of the site, with 6 of this 25% being made up of White Pine and the balance being mixed oaks. White Pine is sparsely distributed among all size and age classes in the stand.

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 is moderate, with 25% of the stand having problematic ferns. However, tall woody and low woody interference each only occupy 6% of the site. No non-native invasive species (NNIS) were observed in the stand inventory

Historic Conditions: This site, like most of PGSF, was likely cutover and burned around the turn of the 20th century. (Note the adjacent 5 ½ mile Hiking Trail is located on the “dinky track” rail road bed that was used to transport timber out of the woods in this area in late 1800-early 1900s.) In recent time, this stand has not been entered. The stand was sprayed for Gypsy Moth suppression in 1989, 90 and 91. There were no forest pests identified during the inventory.

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

Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.

Water Resources: This stand has a south – east aspect and drains toward an unnamed tributary of Toliver Run within the Youghiogheny River Watershed.

Recreation Resources: The stand borders a section of the “5 ½ Mile Hiking Trail” that joins Herrington Manor and Swallow Falls State Parks through the Garrett State Forest.

Soil Resources: The northern half of the sites underlying soils include: ‘Dekalb and Gilpin very stony loams’ on 0-25% slopes. 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. The southern and lower half of the stands underlying soils are mapped as: ‘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

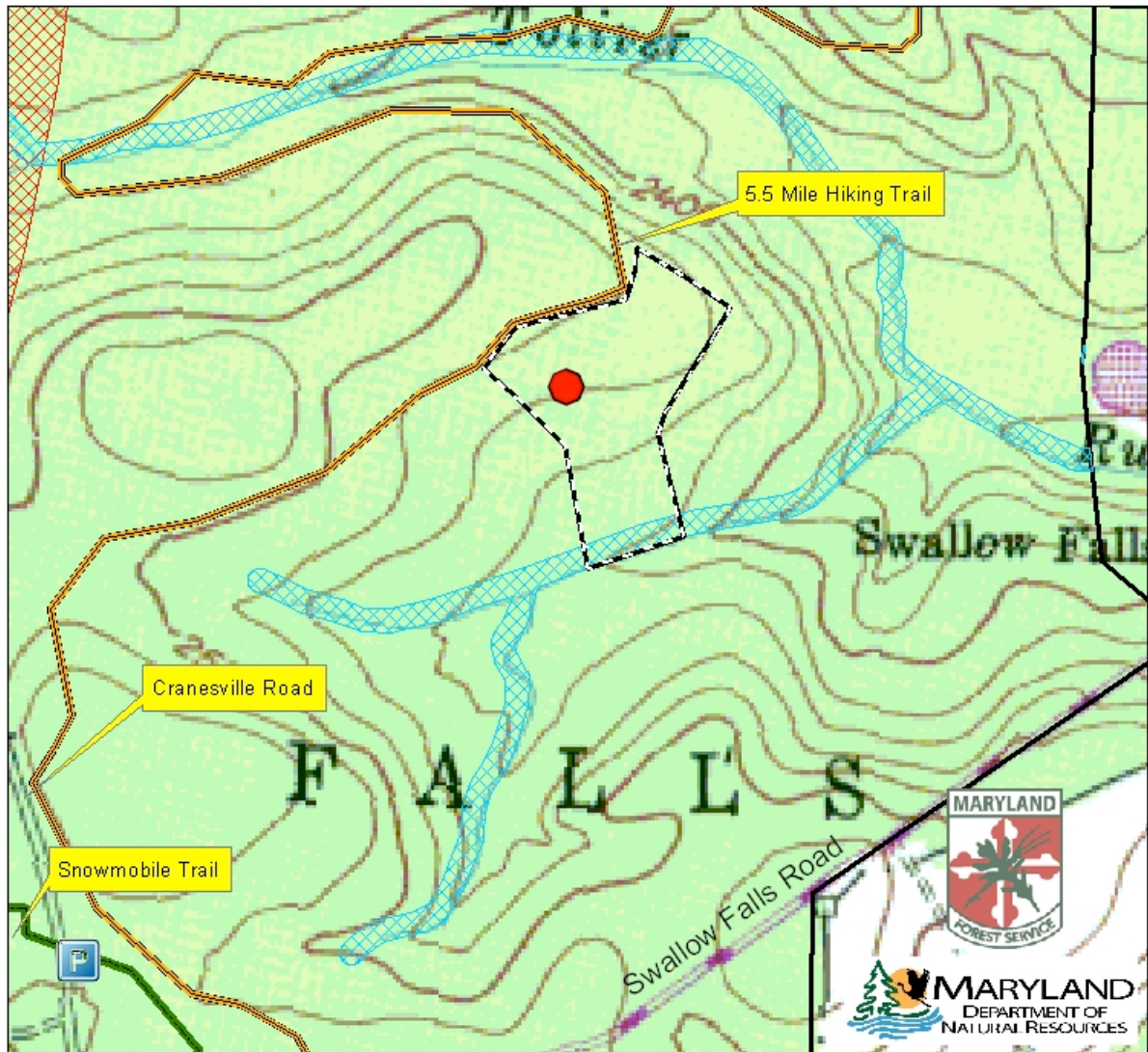
Management goals for this stand are to further the development of this limited oak/pine cover type by promoting the growth and eventual regeneration of the scarce, native White Pine found in the stand.

In order to provide suitable protection to the developing White Pines in the understory, the planned silvicultural treatment will involve a non-commercial thinning from below. The objective of this thinning is to reduce the stocking level to approximately 65% relative density. Particular emphasis will be placed on releasing the limited, young, White Pine from overhead competition in order to stimulate their growth with the intent of carrying them to cone bearing age and condition. This practice will remove approximately 30-40 sq. ft. of basal area (and 15 cords) per acre primarily from the pole-timber and un-acceptable growing stock. Trees to be 'removed' in this practice will be treated with an appropriate herbicide using hack and squirt and/or basal bark spray methods to effectively kill the undesired trees and leave them standing on the stump to slowly decay and gradually fall to the forest floor. This low impact thinning practice is less likely to cause damage to the limited pine resource.

As there will be no heavy equipment involved in this treatment, and therefore no soil disturbance, this practice will be carried out in the entire stand, including the HC VF - riparian buffer zone, as the primary goal is the conservation of this high conservation value forest cover type.

The treatment will run to the trails edge. Trail side management will address aesthetic, safety and maintenance concerns. Trees with particular visual appeal, that would otherwise be removed in this practice, will be retained; eg. serviceberry, sugar maples, or other trees of particular visual interest. Certain trees near the trail may be felled and larger, merchantable sized, trail side trees that should be taken to release the White Pine, may be cut and removed in the planned thinning of adjacent stands. The area should be examined again in 10 years to begin planning for a regeneration harvest that would favor the development of this mixed oak white pine cover type.

Compartment 39 Stand 12 FY-18



Stand Acres.....	16
Treatable Acres.....	13
Forest Type.....	Mixed Oak
Basal Area.....	123
BA AGS.....	103
Stocking.....	92%
Site Index.....	60 for White Oak
Composition.....	White Oak 46%
	Red Maple 27%
	White Pine 13%

 Proposed Area

HCVF Components

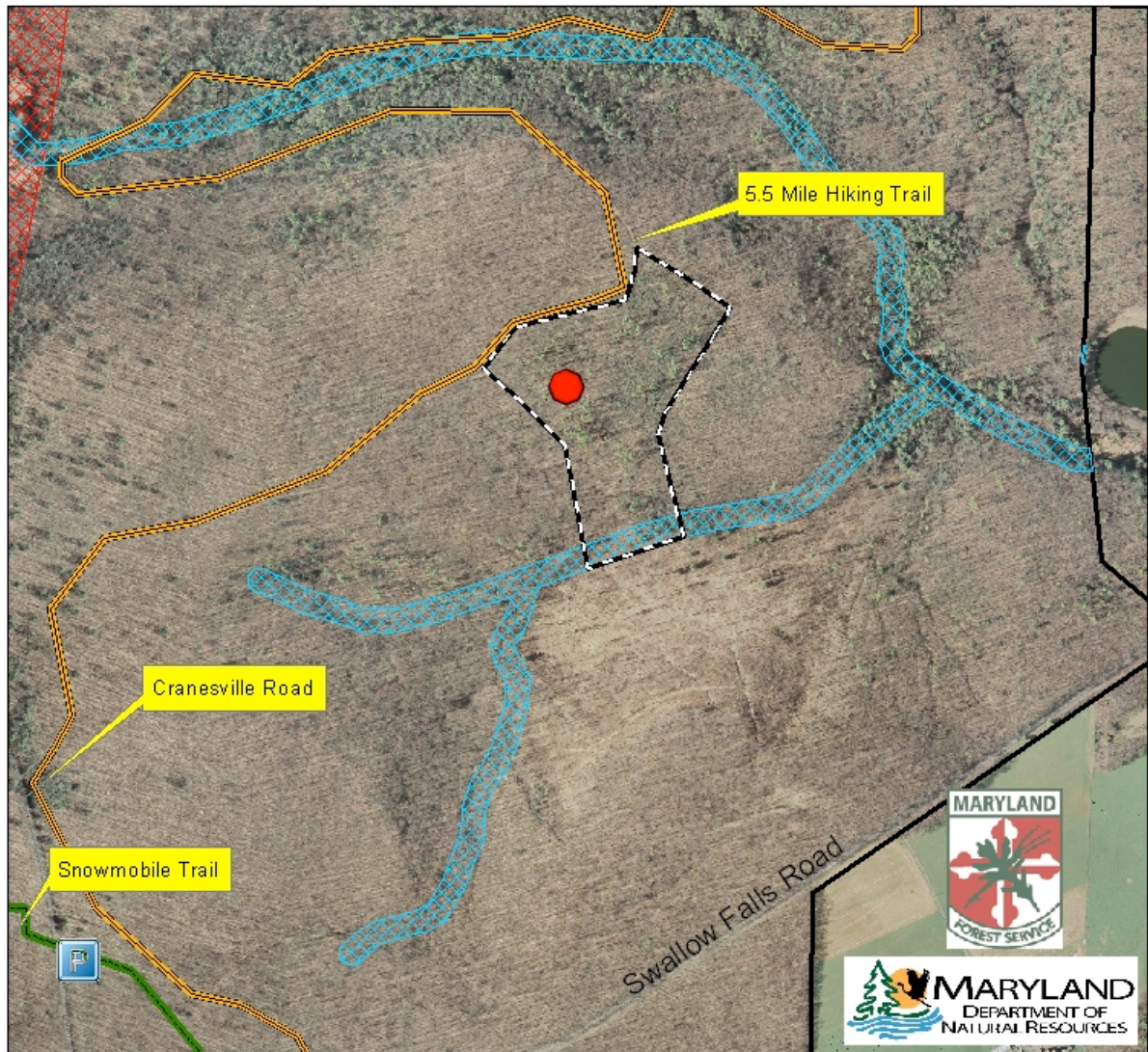
-  Wildlands
-  Ecologically Significant Area
-  Old Growth w/ 300' Buffer
-  Old Growth Management Unit
-  Wetland of State Concern w/ 100' Buffer
-  Streams w/ 50' Buffer

0 215 430 860 1,290 1,720 Feet

 79°26'0.444"W 39°29'42.701"N



Compartment 39 Stand 12 FY-18



Stand Acres.....	16
Treatable Acres.....	13
Forest Type.....	Mixed Oak
Basal Area.....	123
BA AGS.....	103
Stocking.....	92%
Site Index.....	60 for White Oak
Composition.....	White Oak 46%
	Red Maple 27%
	White Pine 13%

Proposed Area

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

79°26'0.444"W 39°29'42.701"N

0 215 430 860 1,290 1,720 Feet



Description/Resource Impact Assessment

Location: This area is located on the Snaggy Mountain Complex in Compartment #39 Stand 13 of the Garrett State Forest. It sits on the south side of the 5 ½ Mile Hiking Trail approximately 0.5 miles from the Trail head parking lot on Cranesville Rd.

Forest Community Type and Condition: This 25-acre site contains a mature, 95 year old mixed hardwood stand. The over story is made up primarily of Red Maple (36%), White Oak (35%), Black Cherry (21%) and Eastern White Pine (5%). The stand is fully stocked at 86% relative density and 126 sq.ft. BA/acre. This stand contains an unusual condition in which desirable regeneration is present on 75% of the site, of which nearly half (35%) is oak and another 5% is White Pine.

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 is moderate, with only 15% of the stand having tall woody interference (much of this being Serviceberry) although 50% of the stand contains low woody interference in the form of the problematic Dewberry. No non-native invasive species (NNIS) were observed in the stand inventory

Historic Conditions: This site, like most of PGSF, was likely cutover and burned around the turn of the 20th century. (Note the adjacent 5 ½ mile Hiking Trail is located on the “dinky track” railroad bed that was used to transport timber out of the woods in this area in late 1800-early 1900s.) In recent time, this stand has not been entered. The stand was sprayed for Gypsy Moth suppression in 1989, 90 and 91. There were no forest pests identified during the inventory.

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

Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.

Water Resources: This stand has a southeast aspect and drains toward an unnamed tributary of Toliver Run within the Youghiogheny River Watershed.

Recreation Resources: The stand borders a section of the 5 1/2 Mile Hiking Trail that joins Herrington Manor and Swallow Falls State Parks through the Garrett State Forest.

Soil Resources: The northern half of the sites 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 0-60% 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. The southern and lower half of the stands underlying soils are mapped

as: '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.

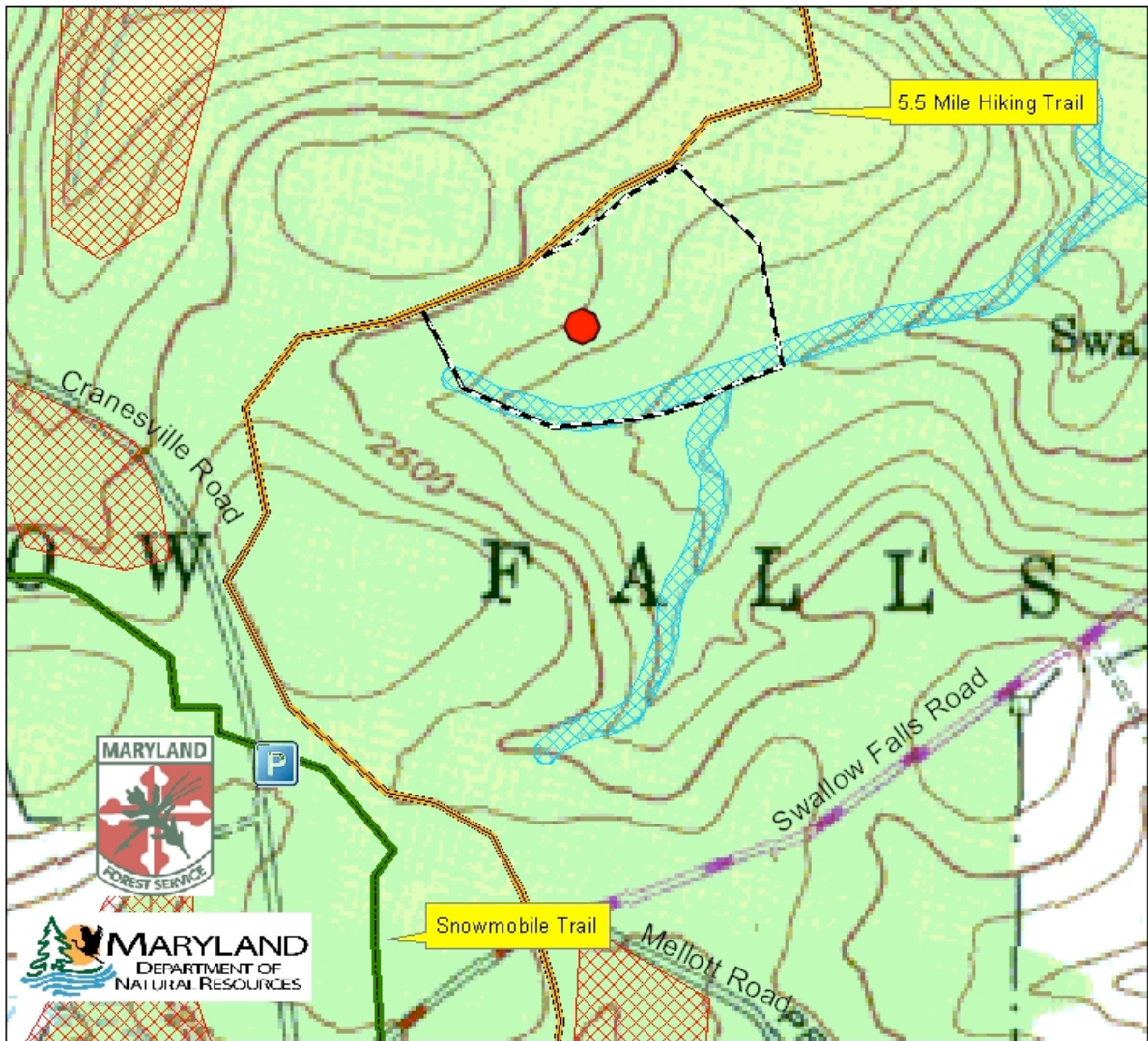
Management and Silvicultural Recommendations

Management goals for this stand are to regenerate this stand, taking advantage of the well established and uncommon condition of 75% established desirable regeneration and the 35% oak seedlings present at this time. This work will be accomplished using a clearcut with variable retention. This harvest will involve the cutting of the majority of the overstory trees. A variable retention approach will be used whereby 4-6 healthy, dominant or co-dominant trees shall be retained for each acre of this harvested area. Particular emphasis shall be placed on retaining groups of dominant and co-dominant white pines and live or dead den/cavity trees. All other hardwood trees greater than 2 inches DBH shall be cut; and all White Pine will be retained. While a large portion of the stand contains what are problematic densities of fern and grass, these plants should not present a problem with these regeneration efforts as the desired seedling stand is at a competitive height, already up and above the influences of the fern and grasses.

As deer impacts are expected to be moderate, all 'top-wood' /pulpwood from saw timber trees shall be left as 'high tops' to deter excessive deer browsing of desired, established regeneration. As desirable seedlings reach a competitive position in the stand, the remaining coarse woody debris will continue to serve as a host to beneficial insects, fungi, and animals as it continues its nutrient cycling role in the forest. Delaying this harvest will likely result in the loss of this uncommon, competitive oak seedling cohort.

The timber will be hauled out across the hiking trail through the adjacent Stand #39-14, in order to utilize the existing landing along side the Cranesville Road. To reduce impacts to the trail bed during the harvest, a timber mat will be placed over the trail crossing. The harvest will run to the trails edge. Trail side management will involve retaining individual trees of particular visual appeal such as serviceberry, hemlock and pine. For the safety of trail users and the contractors carrying out the work, during the harvest, the effected sections of the trails will be posted and closed, with visitors being redirected to other trails in the area. Notice will be posted at affected trail heads as well as on the MD Forest Service website and the State Forest web page.

Compartment 39 Stand 13 FY-18

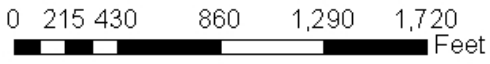


Stand Acres.....	25
Harvest Acres.....	15
Forest Type.....	Mixed Oak
Basal Area.....	126
BA AGS.....	98
Stocking.....	86%
Site Index.....	60 for White Oak
Composition.....	Red Maple 36%
	White Oak 35%
	Black Cherry 21%

Proposed Area

HCVF Components

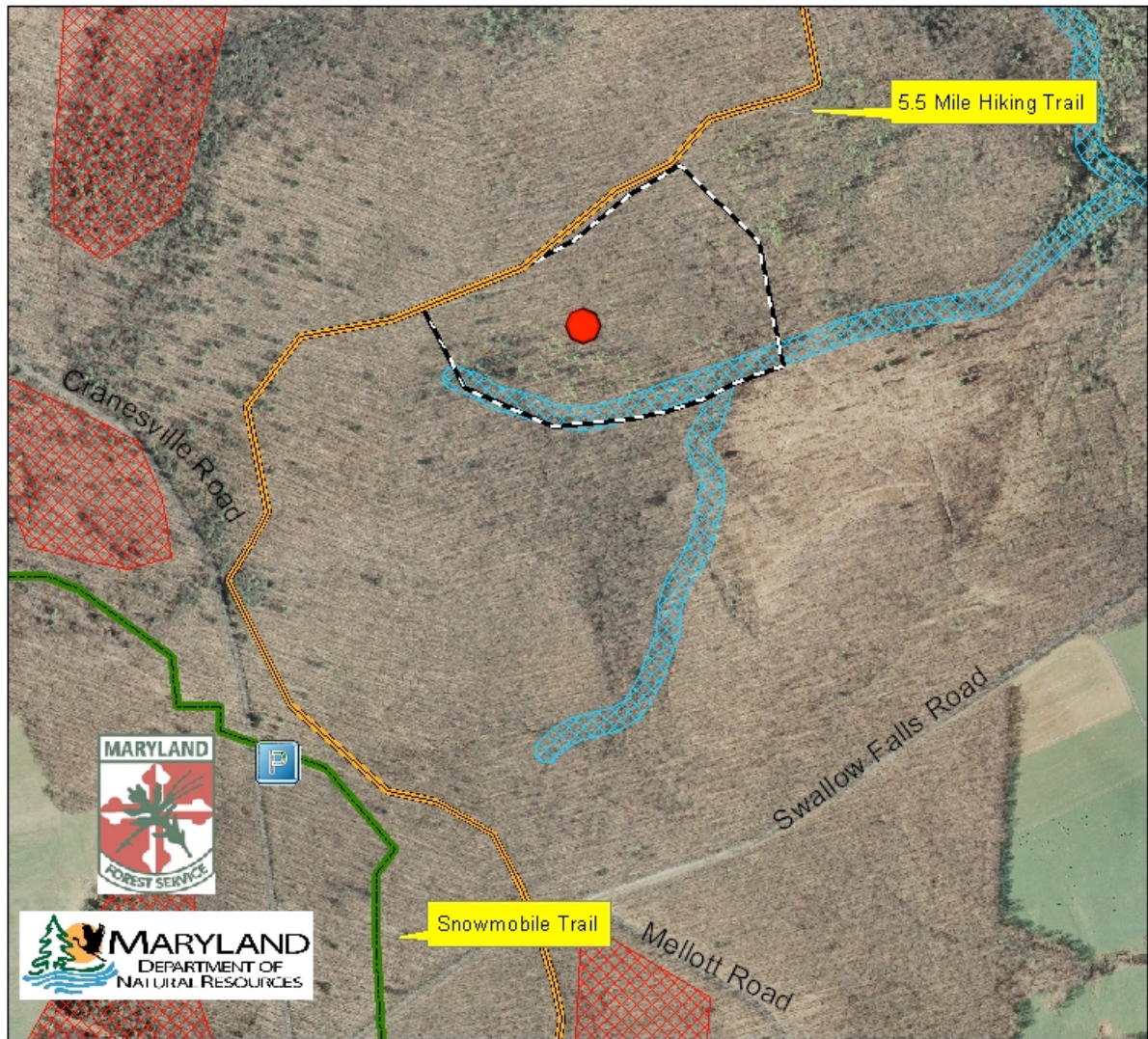
- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer



79°26'9.972"W 39°29'36.978"N



Compartment 39 Stand 13 FY-18



Stand Acres.....	25
Harvest Acres.....	15
Forest Type.....	Mixed Oak
Basal Area.....	126
BA AGS.....	98
Stocking.....	86%
Site Index.....	60 for White Oak
Composition.....	Red Maple 36%
	White Oak 35%
	Black Cherry 21%

0 215 430 860 1,290 1,720
Feet

Proposed Area

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

79°26'9.972"W 39°29'36.978"N



Description/Resource Impact Assessment

Location: This area is located on the Snaggy Mountain Complex in Compartment #41 Stand 8 of the Garrett State Forest. The stand fronts on both the Toliver Trail and the 5 ½ Mile Hiking Trail.

Forest Community Type and Condition: This 33-acre site contains a mature, 100 year old Allegheny Hardwoods stand. The over story is made up primarily of Black Cherry (40%), White Oak (21%), and Red Maple (21%). The stand is fully stocked at 80% relative density and 132 sq.ft. BA/acre, of which 80 sq. ft. are acceptable growing stock. There is insufficient competitive, desirable regeneration present throughout the stand with only (5%) stocking. Most notable is the presence of a few Red Spruce and Balsam Fir trees located within a portion of the stand (primarily seedlings and saplings with a couple larger “parent” trees.) The minimal oak seedlings present should be given consideration when addressing the interfering vegetation.

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 is high, with 64% of the stand having problematic ferns, and 32% having problematic Dewberry cover. Tall woody interference occupies 70% of the stand and is comprised of Serviceberry, Eastern Hemlock, Hawthorn and Witch-Hazel. Non-native invasive species (NNIS) were observed in the stand inventory including Japanese Barberry.

Historic Conditions: This site, like most of PGSF, was likely cutover and burned around the turn of the 20th century. This stand has not been entered in recent time. The area was sprayed for Gypsy Moth suppression in 1990 and 91. There were no forest pests identified during the inventory.

Rare, Threatened and Endangered Species: Within the body of the stand, several remnant native Red Spruce (*MD State Listed as S-3) and a few, very rare native Balsam Fir (**MD State Listed as S-1) trees and seedlings were discovered during the inventory. The very few Balsam Fir are all that is left of a small, approximately 1 acre, isolated pole stand that had gone undiscovered and has recently died out; as evidenced by numerous dead, down and decaying on the forest floor. The Forest Manager knows of no other rare, threatened or endangered species on the site or impacted by the silvicultural prescription.

**(S-1 = Highly State Rare. Critically imperiled in MD because of extreme rarity typically 5 or fewer estimated occurrences or very few remaining individuals or acres in the State)*

*** (S-3 = Rare to uncommon with the number of occurrences typically in the range of 21-100 in MD.)*

Habitats and Species of Management Concern: The eastern edge of the stand fronts on the Toliver Trail which also runs through the edge of the Toliver Run ESA. This ESA is associated with the bog and headwater stream drainages of Toliver Creek. The ESA provides habitats for various threatened and endangered plants and animals largely associated with the bog community. Species of concern include Mountain Earth Snake, and Coal Skink. The ESA also

serves as a deer wintering area. A maintained wildlife opening is also located along the edge of the stand and the ESA.

Within the body of the stand, several remnant native Red Spruce and a few, very rare native Balsam Fir trees and seedlings were discovered during the inventory. The very few Balsam Fir are all that is left of an approximately 1 acre isolated pole stand that had gone undiscovered and has recently died out; as evidenced by numerous dead, down and decaying on the forest floor.

Water Resources: This stand has a southern aspect and drains toward Toliver Creek, within the Youghiogheny River Watershed

Recreation Resources: The stand fronts on both the Toliver Trail and the 5 ½ Mile Hiking Trail. The maintained wildlife opening provides additional wildlife habitat diversity and offers additional hunting opportunities.

Soil Resources: The underlying soils include: ‘Cookport and Ernest very stony silt loams’ on 0-8% slopes. These soils are generally moderately deep and range from moderately well drained to somewhat poorly drained. They have moderate equipment limits because water table is close to the soil surface in winter and early in spring. The western edge of the stand is underlain with “Brinkerton and Andover very stony silt loams” These soils in addition to being very stony, are poorly drained to very poorly drained and are wet much of the time. In fact some areas can be seasonally flooded. Slopes range from level to 15% . Both of the dominant soils in the stand are considered to be very good productivity with site index for oak and cherry ranging 75-85, though they can be difficult to work in due to wetness.

Management and Silvicultural Recommendations

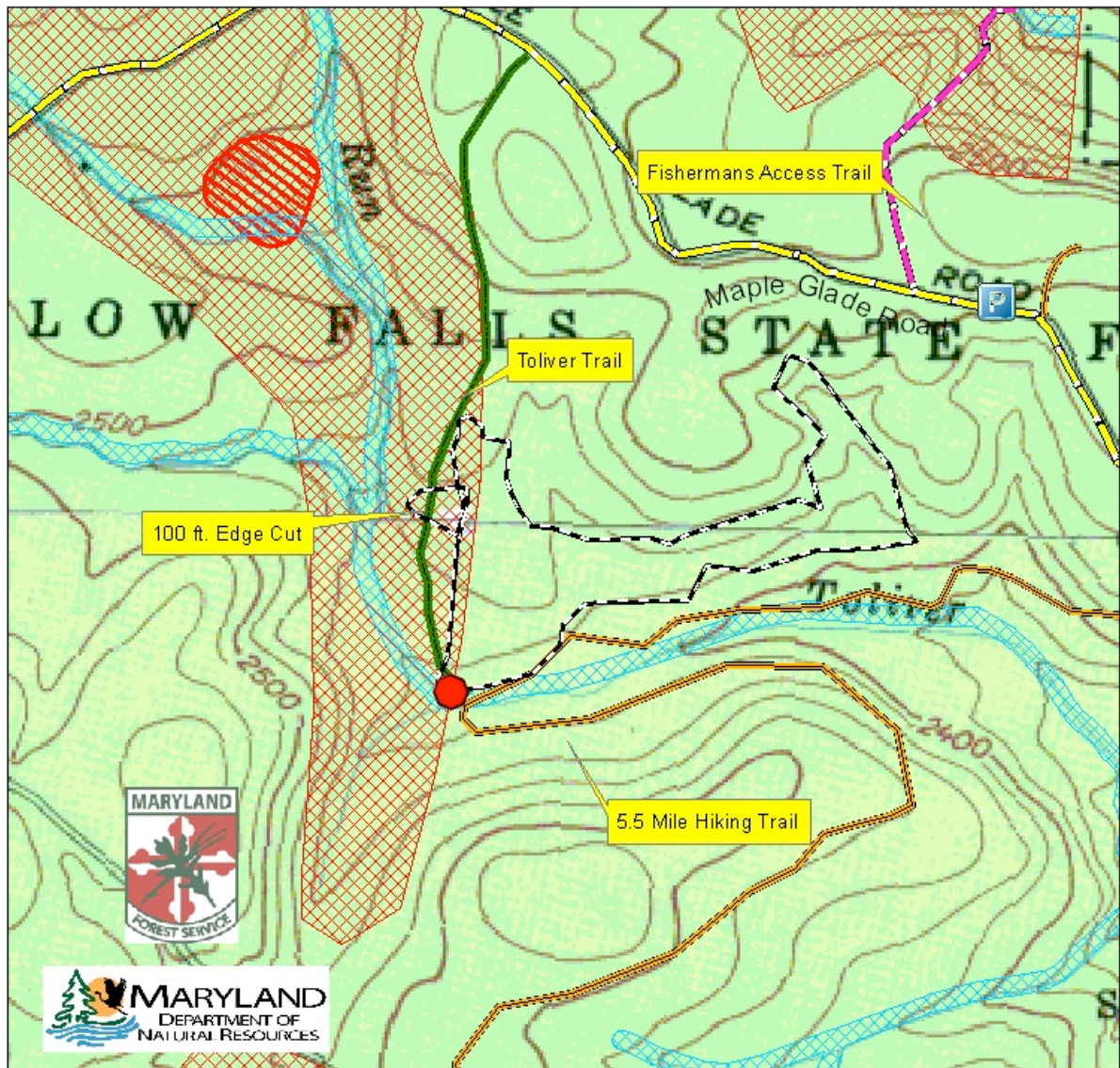
Management goals for this stand are to begin regenerating the stand using what is expected to be a 2-stage shelter-wood system, while providing additional protection and improved growing conditions for the Red Spruce and Balsam Fir components.

Initial work on this site will be carried out as a non-commercial practice designed to create understory conditions suitable for the establishment of desirable seedling growth. Stand stocking and overstory conditions are suitable for seedling establishment, however, interfering vegetation in the understory is preventing this from occurring. As such, the interfering vegetation will be controlled using appropriate herbicide applications. The problematic ground cover of ferns, Dewberry, and low growing woody stems will be treated using appropriate herbicides applied using hand held equipment with low volume/low concentration foliar applications to prevent damage to non-target species, primarily the Red Spruce and Balsam Fir. (Pending the condition of the few “new oak” seedlings at time of treatment, the herbicide utilized may lean toward a Sulfometuron-methyl based product such as “Oust”, without surfactant to prevent damage to the limited, existing oak seedlings present.) The larger (≤ 4 ” DBH) sapling sized hardwood tall woody interference will be treated with a stem directed herbicide treatment (cut surface or basal bark application). Hemlock will not be treated in order to retain this limited conifer component, offering diversity to this otherwise hardwood dominated stand. 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.

Additionally, the small pockets of Red Spruce and Balsam Fir will be released from overhead competition, applying a cut surface treatment to the adjacent competing hardwoods. The rare Red Spruce and Balsam Fir seedlings and saplings will be protected from further deer browse by either stacking brush around them, and or erecting protective fencing.

Compartment 41 Stand 8 FY-18



Stand Acres.....33
 Treatable Acres.....20
 Forest Type.....Allegheny Hardwood
 Basal Area.....137
 BA AGS.....80
 Stocking.....80%
 Site Index.....65 for Black Cherry
 Composition.....Black Cherry 40%
 White Oak 21%
 Red Maple 21%

0 265 530 1,060 1,590 2,120
 Feet

Proposed Area

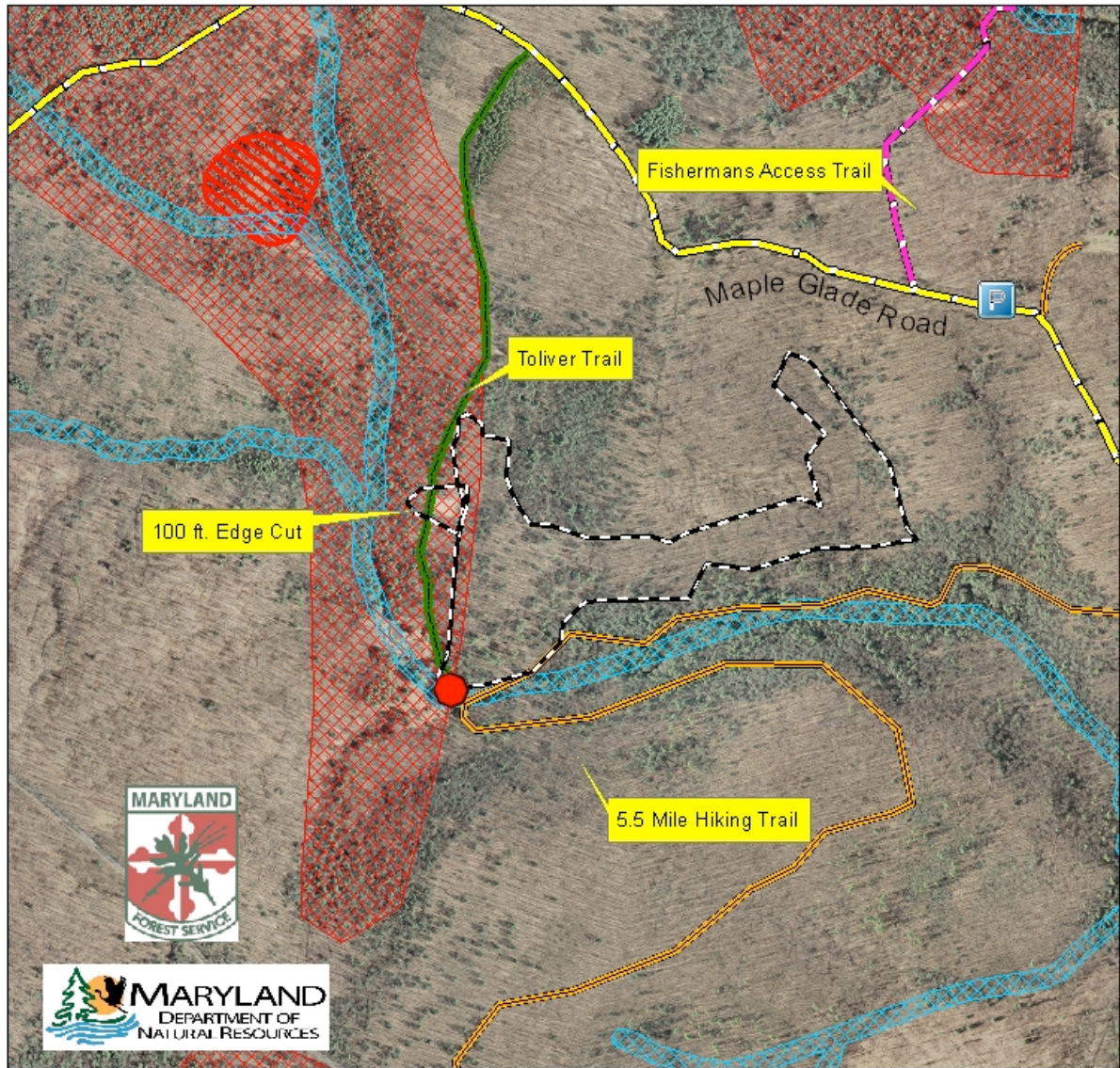
HCVF Components

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

79°26'26.643"W 39°29'58.426"N



Compartment 41 Stand 8 FY-18



Stand Acres.....	33
Treatable Acres.....	20
Forest Type.....	Allegheny Hardwood
Basal Area.....	137
BA AGS.....	80
Stocking.....	80%
Site Index.....	65 for Black Cherry
Composition.....	Black Cherry 40%
	White Oak 21%
	Red Maple 21%

0 265 530 1,060 1,590 2,120 Feet

Proposed Area

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

79°26'26.643"W 39°29'58.426"N



Description/Resource Impact Assessment

Location: This area is located on the Snaggy Mountain Complex in Compartment #42 Stand 8 of the Garrett State Forest. The stand fronts on the Maple Glade Road at the parking lot / trail head for the fishermen's access to Muddy Creek, and also surrounds the Maple Glade Road, Handicapped Hunter Access Area.

Forest Community Type and Condition: This 40-acre site contains a mature, 95 year old mixed oak stand. The over story is made up primarily of White Oak (35%), Red Maple (28%), Black Cherry (11%) and Northern Red Oak (10%). Having been thinned in 1987 the stand is fully stocked at 72% relative density and 102 sq.ft. BA/acre, of which 68 sq. ft. are acceptable growing stock. Sufficient competitive, desirable regeneration is present on only 7% of the site, though 39% of the stand contains tall woody interference comprised largely of storm damaged (bent over) red maple saplings (27 of the 39%) that would have offered an additional desirable regeneration component had they not been destroyed by the October 2012 snow storm. (Note- these trees do offer potential stump sprout opportunity.) The minimal oak seedlings present should be given consideration when addressing the interfering vegetation.

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 is high, with 41% of the stand having problematic ferns, and 20% having problematic Dewberry cover. Tall woody interference occupies 39% of the stand (with 27 of the 39% being Red Maple rendered unacceptable by storm damage, but offering stump sprout potential. No non-native invasive species (NNIS) were observed in the stand inventory

Historic Conditions: This site, like most of PGSF, was likely cutover and burned around the turn of the 20th century. This stand was thinned in 1987 and was sprayed for Gypsy Moth suppression in 1989, 90 and 91. There were no forest pests identified during the inventory.

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

Habitats and Species of Management Concern: The stand sits upslope of the Muddy Creek Springs ESA, which provides habitats for Long Tail Shrews, Water Shrews, and some rare wildlife opening.

Water Resources: This stand has a northeast aspect and drains toward Muddy Creek, a stocked trout stream within the Youghiogheny River Watershed.

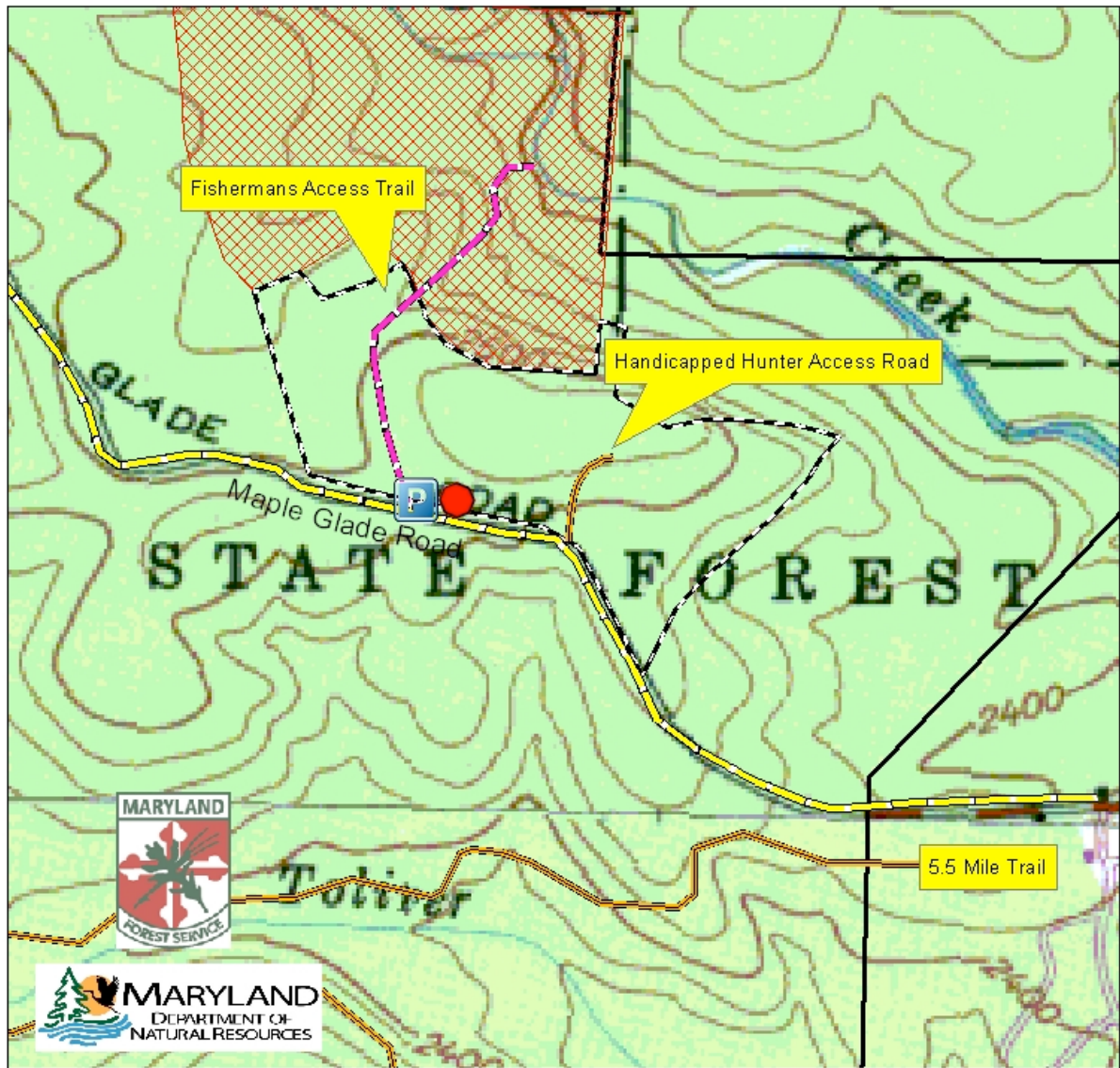
Recreation Resources: Two service roads run through the stand; one runs through the maintained wildlife opening and serves as walk-in fishermen's access to Muddy Creek, and the other that serves as the Handicapped Hunter Access Road.

Soil Resources: The northern half of the sites underlying soils include: ‘Dekalb and Gilpin very stony loams’ on 0-25% slopes. 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. The site has very good productivity for woodland management, with a site index of 75-85 for upland oaks.

Management and Silvicultural Recommendations

Management goals for this stand are to begin regenerating the stand using what is expected to be a 2-stage shelter-wood system. Initial work on this site will be carried out as a non-commercial practice designed to create understory conditions suitable for the establishment of desirable seedling growth. Stand stocking and overstory conditions are suitable for seedling establishment, however, interfering vegetation in the understory is preventing this from occurring. As such, the interfering vegetation will be controlled using appropriate herbicide applications. The problematic ground cover of ferns, and Dewberry, low growing woody stems will be treated using appropriate herbicide applied using low volume/low concentration foliar applications. (Pending the condition of the few “new oak” seedlings at time of treatment, the herbicide utilized may lean toward a Sulfometuron-methyl based product such as “Oust”, without surfactant to prevent damage to the limited, existing oak seedlings present.) The larger sapling sized (≤ 4 ” DBH) hardwood, tall woody interference 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 42 Stand 8 FY-18



Stand Acres.....	40
Treatable Acres.....	40
Forest Type.....	Mixed Oak
Basal Area.....	102
BA AGS.....	68
Stocking.....	74%
Site Index.....	60 for White Oak
Composition.....	White Oak 35%
	Red Maple 28%
	Black Cherry 11%

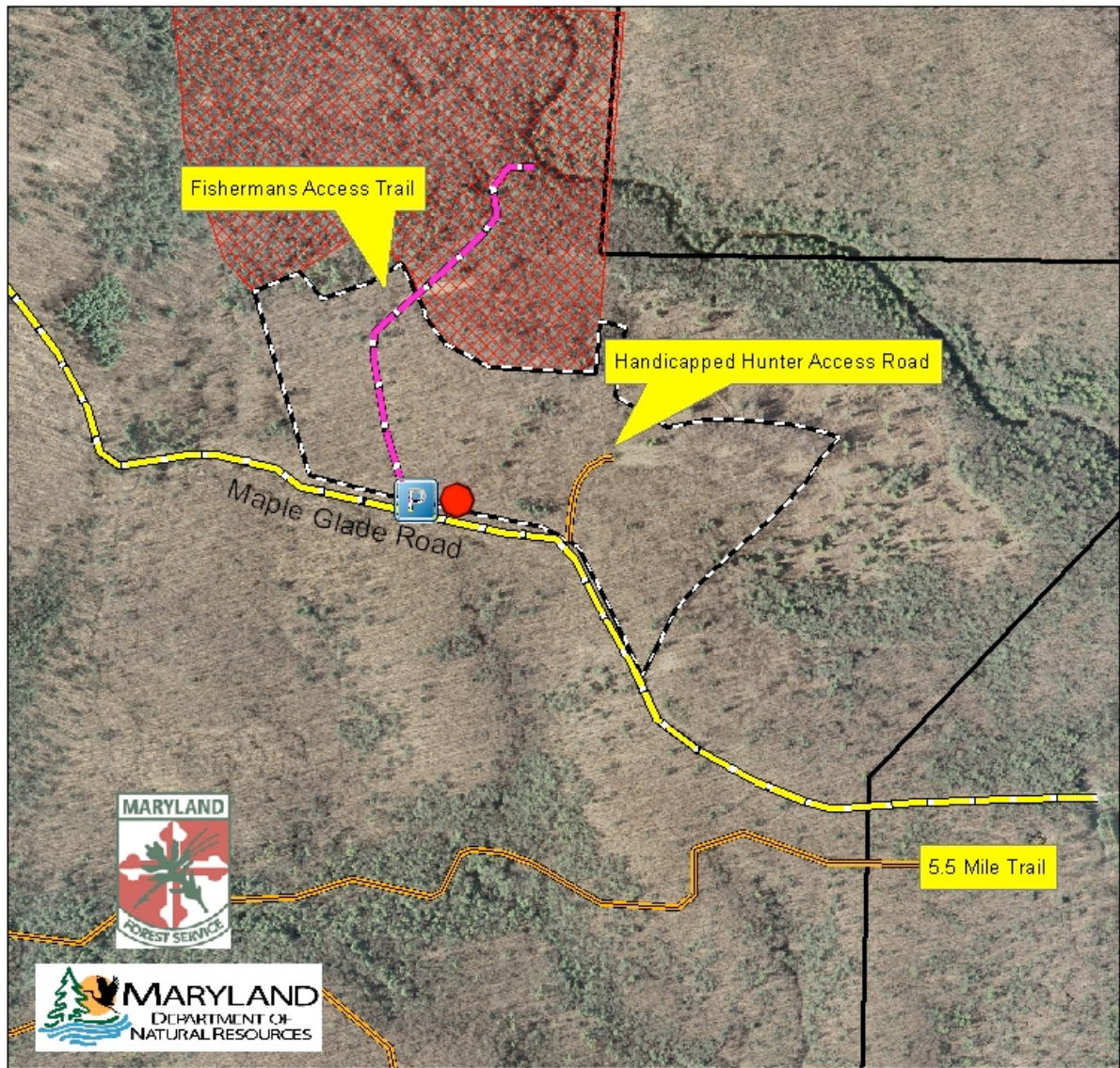
	Proposed Area
HCVF Components	
	Wildlands
	Ecologically Significant Area
	Old Growth w/300' Buffer
	Old Growth Management Unit
	Wetland of State Concern w/ 100' Buffer

79°25'56.473"W 39°30'14.998"N

0 215 430 860 1,290 1,720 Feet



Compartment 42 Stand 8 FY-18



Stand Acres.....	40
Treatable Acres.....	40
Forest Type.....	Mixed Oak
Basal Area.....	102
BA AGS.....	68
Stocking.....	74%
Site Index.....	60 for White Oak
Composition.....	White Oak 35%
	Red Maple 28%
	Black Cherry 11%

Proposed Area

HCVF Components

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

79°25'56.473"W 39°30'14.998"N

0 215 430 860 1,290 1,720 Feet



Description/Resource Impact Assessment

Location: This area is located on the Piney Mountain Complex in Compartment #45 Stand 6 HCVF of the Garrett State Forest. It sits on the east side of the Piney Mountain Snowmobile Trail approximately 0.1 miles from the intersection of the snowmobile trail and the Piney Mountain Road, at Campsite #55.

Forest Community Type and Condition: This 100-acre stand contains an immature, mixed hardwood stand made up primarily of Red Maple (28%), Red Oak (29%), and Chestnut Oak (19%). Of particular interest is a very small (approx. 1 ac.) inclusion of Red Spruce, of which this proposal is based upon. (*MD State Listed as S-3 Rare to uncommon...) This small stand inclusion contains a significant component of native Red Spruce (approx. 20-30 stems per acre). Trees range from small seedlings up to the occasional 20 inch DBH parent tree. Once common in the highlands of Garrett County; being a significant timber species at the turn of the 20th century, Red Spruce has all but been displaced from the forests of western Maryland. Small pockets of Red Spruce are found throughout the county, and efforts have been made to assure the continued existence of this once abundant tree species. The Nature Conservancy has initiated significant Red Spruce restoration efforts in the Cranesville Swamp preserve immediately to the west of the State Forest. The State Forest staff have followed suit, having planted 1,600 Red Spruce seedlings (2005 -2006) to expand an existing small patch of Red Spruce on State lands within the Cranesville Swamp drainage north of this smaller 'patch'. In 2010 State Forest staff initiated crop tree release work on a 4-acre stand of Red Spruce approximately ¼ mile east of this small stand.

Interfering Elements: Deer browse pressure in this area is estimated to be high and must be addressed when considering regeneration efforts on this site. Data on interfering plant competition was not collected as it is not a factor in the planned management work for the Red Spruce work being proposed.

Historic Conditions: This site, like most of PGSF, was likely cutover and burned around the turn of the 20th century. In recent time, this stand has not been entered for harvest. The stand was sprayed for Gypsy Moth suppression in 1991. There were no forest pests identified during the inventory.

Rare, Threatened and Endangered Species: Red Spruce is found on the site. This rare plant is Maryland listed as S-3 (Rare to uncommon with the number of occurrences typically in the range of 21-100 in MD) and is the focus of the planned management efforts being proposed.

Habitats and Species of Management Concern: The stand lies within the Piney Mountain West ESA, which includes habitat for a number of species of management concern including: Bobcats, Green Salamanders, Snowshoe Hare, Red Spruce and Balsam Fir. The ESA includes wetlands of special State concern and falls within the larger "Bio-Net Tier 1 Area" inclusive of the nearby Cranesville Swamp area managed by The Nature Conservancy.

Water Resources: This stand has a southeast aspect and drains toward Piney Run a tributary of Muddy Creek within the Youghiogheny River Watershed.

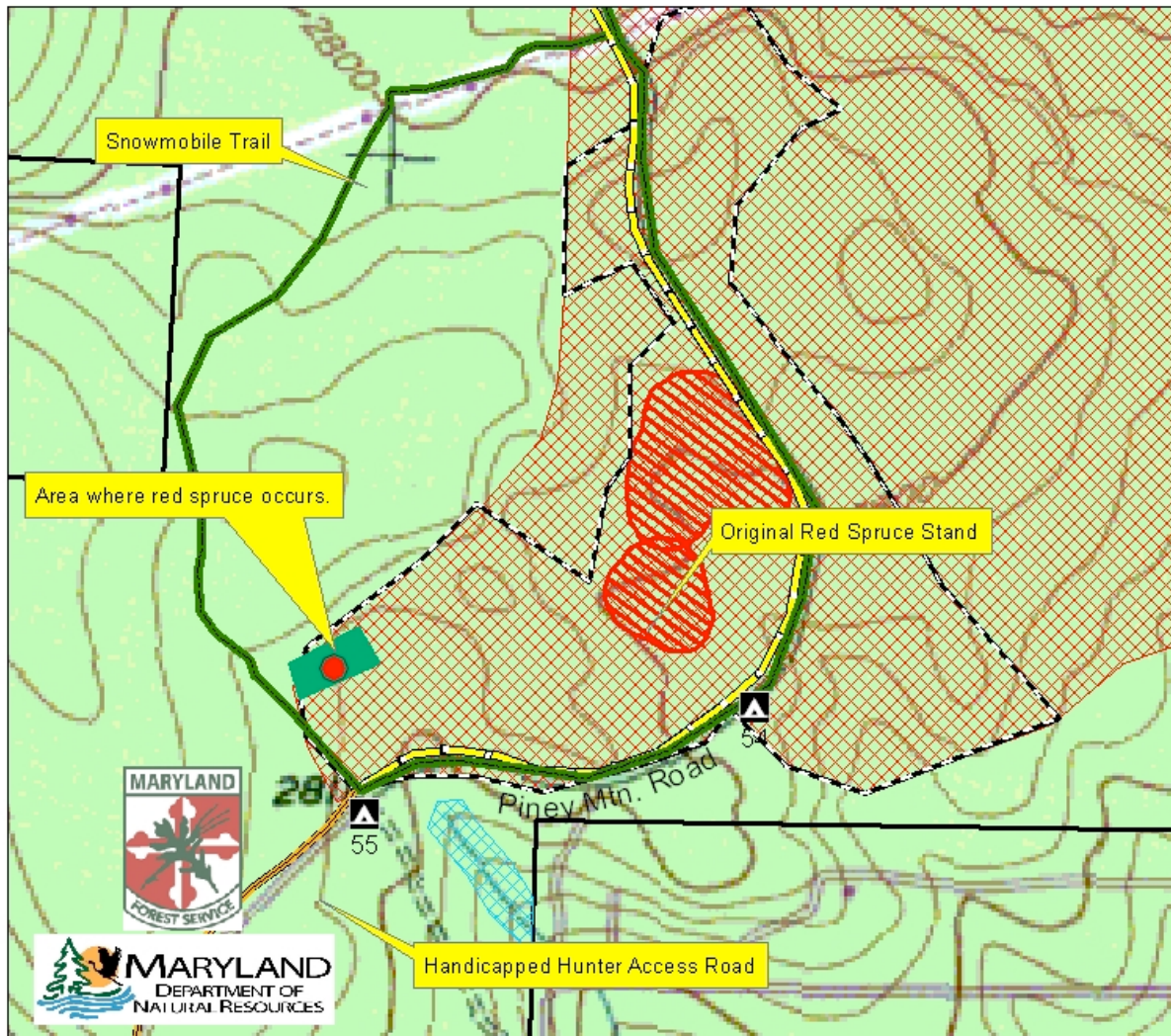
Soil Resources: The spruce patch is underlain with soils mapped as “Brinkerton and Andover very stony silt loams” These soils in addition to being very stony, are poorly drained to very poorly drained and are wet much of the time. In fact some areas can be seasonally flooded. Slopes range from level to 15% and these soils are considered to be very good productivity with site index for oak and cherry ranging 75-85, though difficult to work in due to wetness.

Management and Silvicultural Recommendations

The goal for this stand is to manage the Red Spruce component to improve the health and vigor of these trees in order that they may one day begin to naturally expand and return as a more viable component of the forest. The proposed silvicultural treatment for this stand is a non-commercial timber stand improvement practice in the form of a crop tree release among the Red Spruce stand. During this operation, the Red Spruce shall serve as the ‘crop trees’. These spruce crop trees will have approximately 30% of the competing hardwood overstory removed by girdling. Girdling will take place in the dormant season, to lessen the effects of sun shock. The girdling method will be used verses felling the trees, as this will avoid potential damage to the spruce trees during a felling operation. Girdled trees will be left standing dead for wildlife habitat, and they will slowly decay and fall to the ground. Smaller pole sized trees may be cut in this operation.

This practice will improve the growing conditions for the selected spruce trees as competition for both sunlight and nutrients will be reduced by 30%. With a reduction in competition, the spruce will be more vigorous and healthy and should continue to mature to a point in the future where they may begin to produce cones and further naturalize the area.

Compartment 45 Stand 6 HCVF FY-18



Stand Acres.....	100
Treatable Acres.....	1/2- 1
Forest Type.....	Mixed Oak
Basal Area.....	126
BA AGS.....	113
Stocking.....	96%
Site Index.....	55 Red Oak
Composition.....	Red Oak 29%
	Red Maple 28%
	Chestnut Oak 19%

Proposed Area

HCVF Components

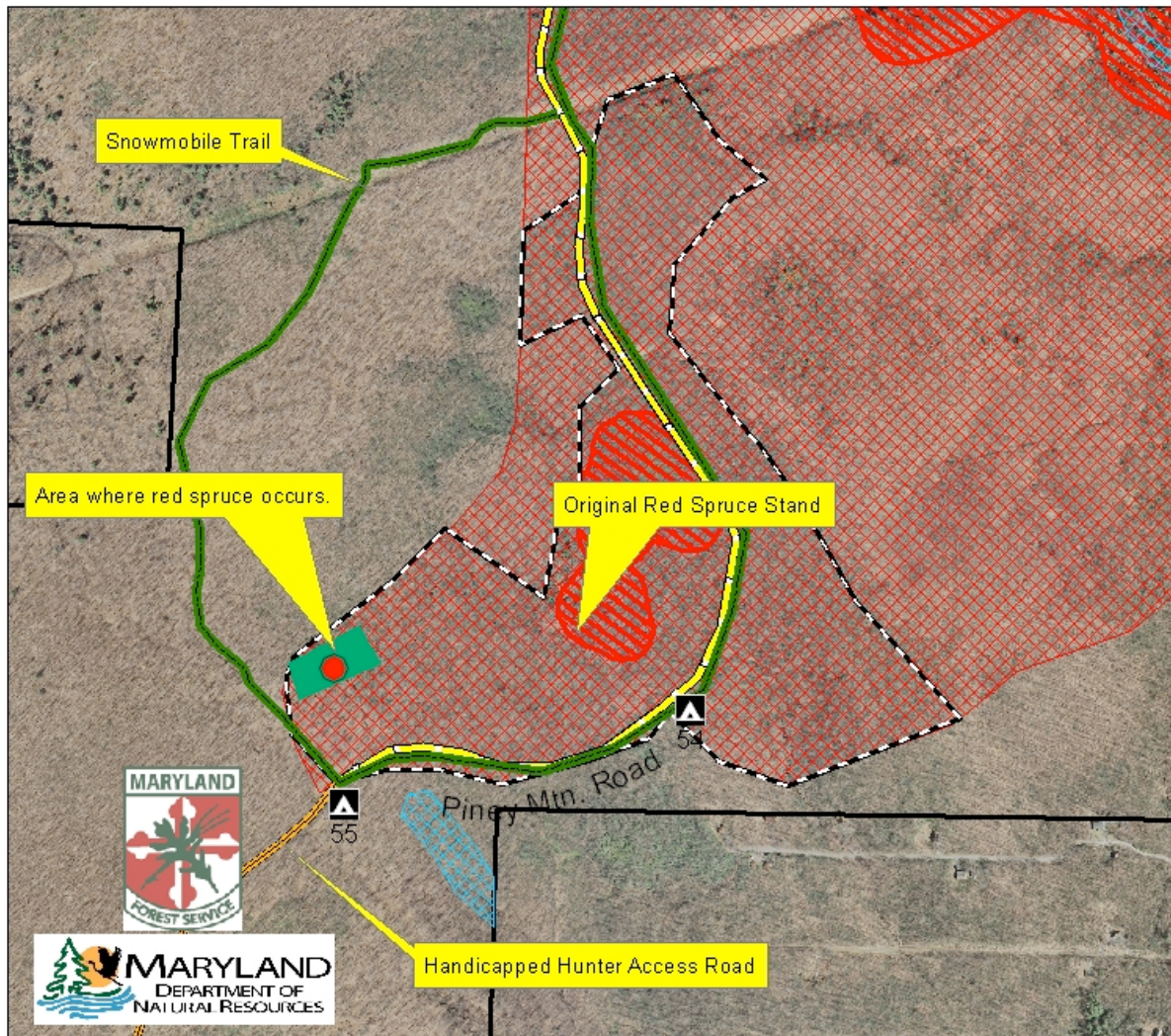
- Wildlands
- Ecologically Significant Area
- Old Growth w/ 300' Buffer
- Old Growth Management Unit
- Wetland of State Concern w/ 100' Buffer
- Streams w/ 50' Buffer

0 215 430 860 1,290 1,720 Feet

79°27'30.453"W 39°32'9.371"N



Compartment 45 Stand 6 HCVF FY-18



Proposed Area

Stand Acres.....	100
Treatable Acres.....	1/2- 1
Forest Type.....	Mixed Oak
Basal Area.....	126
BA AGS.....	113
Stocking.....	96%
Site Index.....	55 Red Oak
Composition.....	Red Oak 29%
	Red Maple 28%
	Chestnut 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

0 245 490 980 1,470 1,960 Feet

79°27'30.453"W 39°32'9.371"N



XI. Operational Management and Budget Summary (Final FY-18 AWP)

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). The numbers expressed in this section are averages based on actual annual expenses and revenues over 10 years ending July 1, 2017. These numbers should reflect expected results for upcoming Fiscal Years Work Plan. However, annual changes in management prescriptions, timber markets, weather conditions, and public use of the forest can significantly affect revenues.

(Figures reported are a reflection of 2018 Budget amounts compared to the previous 10-year average. See 10-Year Budget Summary.)

B. PGSF FUNDING SOURCES

1. General Fund 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 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).

3. ORV Fund 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. 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 Certification Funds

Grant monies secured for the completion of the particular requirements associated with maintaining "Forest Certifications".

b. National Recreational Trail Grants

These grants are competitive and were 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.

c. Other Grants

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 had been directed to improving the public access and trail network on Potomac-Garrett State Forests.

d. NGO Conservation Partnerships

State Forest staff has regularly sought wildlife habitat improvement grants from various non-governmental conservation organizations. Local chapters have been generous with support and sponsorship of grants submitted to their national, state and local offices. National Wild Turkey Federation and The Ruffed Grouse Society are regular contributors of local habitat funding.

C. BUDGET DISTRIBUTION

1. *Operational Budget for 2018 = \$550,120; 10-Year Average = \$505,346*

Operational budget expenses are those typical year to year 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. Year to year, the operational budget is expected to cover:

a. Classified Salaries, Wages and Benefits

This cost is associated with General Funds which are State tax revenues provided annually. These funds are used to pay the salaries, wages and

benefits of Maryland Classified Employees responsible for the management, operations and maintenance of the State Forest.

2018 = \$380,049; 10-Year Average = \$303,388

b. Contractual Staffing

This cost is associated with contractual personnel ("seasonals") 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. Does not include those contractual employees hired for special projects over and above the routine management and operation of the forest such as special hires to meet a particular Forest Certification requirement, or a special trail project.

2018 = \$52,467; 10-Year Average = \$69,130

c. Land Management and Operation Cost

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.

2018 = \$68,604; 10-Year Average = \$82,140

d. County Payments

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 have traditionally been used to help the counties offset the loss in property tax revenues which are not paid on State owned lands.

2018 = \$49,000; 10-Year Average = \$46,860

2. *Special Project Funds* Beyond the typical year to year costs paid directly out of the PGSF Operational Budget, the State Forest generally has a number of additional special projects being carried out to meet various resource management objectives. These special projects are taken on to meet unit objectives as funding sources are identified or secured beyond the normal State Budget stream. These funds are often narrowly targeted to cover specific deliverables over and above the routine management and operation of these public lands. Special Project Funds are loosely categorized as follows:

a. *Outside Grants*

Funding secured to address specific resource management projects otherwise not funded. Sources include National Recreation Trails Grants, NGO Conservation Organizations (NWTF, RGS, etc.)

2018 = \$90,000; 10-Year Average = \$37,081

b. *Certification Fund*

Grant monies secured for the completion of the particular requirements associated with maintaining "Forest Certifications"; including forest inventory, resource monitoring, critical cultural work, etc.

2018 = \$13,500; 10-Year Average = \$14,057

c. *ORV Funds*

ORV funds are a restricted special fund and can only be spent for ORV Trail related expenditures and have played a critical role in maintaining the ORV Trail networks for the State Forests. 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. Managers have had to rely on other grant sources to address sorely underfunded ORV Trail maintenance demands.

2018 = \$.00; 10-Year Average = \$10,234

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 costs will be reviewed quarterly as the actual picture develops within implementation of Annual Work Plan and as operating budgets are approved.

The following table offers a 10 year summary showing the Operational Budget trends for PGSF:

10 - Year Budget Summary
for
Potomac-Garrett State Forest

FY	Operational Budget	Classified Staff	Contractual Staff	Land Mngt & Operations	County Payment	Special Project Funding				Total Available funds
						"Outside" Grant	Certification Funds	ORV Funds		
2008	\$515,637.00	\$308,581.00	\$62,486.00	\$58,488.00	\$86,082.00	\$30,000.00	\$0.00	\$18,711.00		\$564,348.00
2009	\$516,723.00	\$315,623.00	\$58,980.00	\$56,038.00	\$86,082.00	\$0.00	\$0.00	\$16,033.00		\$532,756.00
2010	\$486,270.00	\$255,157.00	\$94,090.00	\$86,023.00	\$51,000.00	\$0.00	\$0.00	\$31,830.00		\$518,100.00
2011	\$376,083.00	\$209,124.00	\$59,266.00	\$63,693.00	\$44,000.00	\$30,000.00	\$25,537.00	\$17,000.00		\$448,620.00
2012	\$466,930.00	\$274,899.00	\$82,088.00	\$65,303.00	\$44,640.00	\$60,000.00	\$16,929.00	\$17,000.00		\$560,859.00
2013	\$473,147.00	\$279,875.00	\$82,088.00	\$91,524.00	\$19,660.00	\$68,750.00	\$25,167.00	\$12,000.00		\$579,064.00
2014	\$498,340.00	\$279,875.00	\$79,225.00	\$114,240.00	\$25,000.00	\$0.00	\$20,000.00	\$0.00		\$518,340.00
2015	\$542,737.00	\$317,847.00	\$83,728.00	\$103,912.00	\$37,250.00	\$0.00	\$20,000.00	\$0.00		\$562,737.00
2016	\$535,428.00	\$353,662.00	\$52,467.00	\$88,920.00	\$23,450.00	\$39,150.00	\$20,000.00	\$0.00		\$577,649.00
2017	\$597,395.00	\$362,577.00	\$53,551.00	\$106,803.00	\$49,297.00	\$90,000.00	\$13,500.00	\$0.00		\$675,728.00
2018	\$550,120.00	\$380,049.00	\$52,467.00	\$68,604.00	\$49,000.00	\$90,000.00	\$13,500.00	\$0.00		\$653,620.00
Avg.	\$505,346.36	\$303,388.09	\$69,130.55	\$82,140.73	\$46,860.09	\$37,081.82	\$14,057.55	\$10,234.00		\$562,892.82

(Appendix 1) – 10-Year Timber Harvest Summary Table

10 Year Timber Harvest Summary
for
Potomac-Garrett State Forest

<i>Fiscal Year</i>	<i>Planned harvest</i>	<i>Bd. Ft Vol. Harvested</i>	<i>Gross Value of sale</i>
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
2017	533 MBF	Not sold yet.	Not sold yet.

(* Salvage driven sales.) (**Saw log volumes lost to pulpwood.)

Forest Stewardship Council - 2016 Audit: Overview of Audit Findings

Finding Number: 2015.1

FSC-US indicator 5.6.c. – Closed

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.

SCS review

In addition to the report shown for Savage River SF, FME demonstrated quarterly silvicultural reports for other state forests of the western region (e.g., Green Ridge SF). During discussions with FME staff, the issue of keeping up with harvests involves several variables, including mechanisms for tracking progress, issues related to operability and accessibility to stands scheduled for entry, recent salvage harvests, and, in some cases, timber markets. FME determined that tracking timber harvest scheduling progress would be a possible solution to monitoring these and other variables. FME also determined that a root cause was a lack of removing inoperable areas from the current productive acreage, which was continually resulting in the failure to meet area control objectives (i.e., annual allowable harvest). Reclassification has helped to reduce the amount of overstocked, inoperable stands within the harvestable area. Including reserves and protected areas, this now puts approximately two thirds of the state forest area in the western region out of production. However, FME may be able to put some of these inoperable areas back into productive if different harvesting methods or equipment become available in the region over time.

Finding Number: 2015.2

FSC-US Indicator 6.2.b. – Closed

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.

SCS review

FME has conducted nine burns since the last audit on the Maryland Shore and has developed a system to prioritize areas for each burn season. For the 2016 season so far, approximately 40% of the areas scheduled for prescribed burns have been completed. In the western region, the shale barrens have not receive any prescribed burns, but have received other treatments such as chemical control of invading trees. Forestry staff are still in discussion with Heritage staff about using timber harvests located near priority areas to prepare sites for prescribed burns. However, see OBS 2016.4.

Finding Number: 2015.3

FSC-US Indicator 6.5.d. – Closed

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.

SCS review

A summary of completed and future projects was provided in the document provided by the FME. Through interviews with FME staff and field observation, SCS confirmed that significant progress has been made in prioritizing maintenance and in streamlining the review process to better control costs on road projects.

Finding Number: 2015.4

FSC-US Indicator 6.6.c.

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.

SCS review

Post-herbicide treatment maps were shown for recent aerial sprays. In all cases, protected individual trees and protected areas were not sprayed according to GPS data provided by the operator. FME also provided copies of hazard maps that its forestry contractor on the Maryland Shore reviews with aerial herbicide applicators prior to treatment, as well as records of these pre-application meetings.

Finding Number: 2015.5

FSC-US Indicator 7.2.a.

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.

SCS review

SCS verified that the content as cited by FME is included in all State Forests' FMPs.

Finding Number: 2016.1

FSC-US Indicator 6.3.a.1, 6.3.d and 6.3.e

Non-Conformity (or Background/ Justification in the case of Observations):

According to the FMP and interviews with FME staff, native conifer species were likely more prevalent on the landscape than they are currently. FME is considering expanding the use of native and non-native conifers on certain sites as a wildlife management component, to restore native species (both conifer and broadleaf), and possibly to adapt to climate change and invasive pests/ pathogens.

There was one site where native conifer restoration with white pine was written into the site plan as an option, but FME staff were debating on whether or not to continue with that management trajectory given deer browse pressure. Certain activities observed, specifically retention of hemlock, white pine, pitch pine and Virginia pine, within thinning and regeneration harvest units likely contribute to maintaining and/or increasing native conifer cover.

However, at the landscape level, FME has not assessed the desired future condition of the native and non-native conifer component, including selection of species that will meet social, economic, and ecological objectives depending on site conditions.

Finding Number: 2016.2

FSC-US Indicator 6.5.d and 6.5.g.

Non-Conformity (or Background/ Justification in the case of Observations):

Trail funding and/or restrictions on its use may not allow for the timely maintenance and closure needs of existing authorized and unauthorized trails. The audit team observed instances where trail maintenance for existing trails did not occur due to lack of funds or difficulty in obtaining them. There is also some concern from stakeholders on the density of trails, particularly its effect on hunting success. Furthermore, the density of unauthorized trails may result in a loss of productive and protected forest area. Fewer restrictions on use of trail funds may result on greater opportunities for forestry, heritage and recreational staff to collaborate on the protection of sensitive resources at reduced cost while offering user groups a positive recreational experience.

Finding Number: 2016.3

FSC-US Indicator 6.9.a

Non-Conformity (or Background/ Justification in the case of Observations):

During interviews with FME staff, there was discussion on possibly expanding the use of Norway spruce and Red pine to mitigate the loss of native conifers, and to continue to serve as habitat for RTE species. Any expanded use beyond the currently planted area would have to be justified and based on scientific data.

Siberian crabapple is no longer produced in the state nursery, but has been used in the past on early successional habitat projects. State seed mixes for use on log landings and other sensitive areas include non-native clovers and grasses. Current recommendations from heritage staff are to avoid use of Siberian crabapple and the seed mix.

Finding Number: 2016.4

FSC-US Indicator 7.1.b, 7.1.c and 7.1.e.

Non-Conformity (or Background/ Justification in the case of Observations):

The management plan describes the history of land use and past management, current forest types and associated development, size class and/or successional stages, and natural disturbance regimes that affect the FMU (see Indicator 6.1.a). However, the historical presence of conifers in the management plan could be expanded to include the knowledge presented by local forestry staff during the audit, which could help set the stage for conifer objectives on the landscape.

ESA plans may not be being completed on time according to draft annual work plans reviewed. According to these drafts, ESA plans for FY2017 were to be completed over the winter of 2016. A failure to complete these plans may result in limited opportunities to avoid negative impacts to these areas, especially where active management may benefit the species or communities found in them. ESA management plans set the stage for the implementation of maintenance and recovery objectives for RTE species and/or sensitive ecosystems, as well as detail monitoring strategies that are compatible with these objectives.

(Appendix 3) - 2016 SFI Audit Action Plan

Sustainable Forestry Initiative

2016 Audit: Overview of Audit Findings

Maryland's SFI Program demonstrated conformance against the SFI 2015-2019 Standard. There were no non-conformances, and three "Opportunities for Improvement". The program has continued to exceed the standard in several areas. As such, the program has earned continuing certification.

2015 Non-Conformances Resolved

Two non-conformances which were identified in the 2015 audit have been resolved.

Indicator 2.3.6 requires "Road construction and skidding layout to *minimize* impacts to soil *productivity*. The program has demonstrated the ability to identify and prioritize the most critical road segments for temporary repair and for major reconstruction. Reconstruction projects reviewed were completed to high standards and should be expected to sustain use at expected levels. (2015 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." Field observations allowed the audit team to conclude that the increased pace of forest management practices are developing and maintaining healthy forests in most areas. (2015 Minor Non-conformance: Management on the Savage River State Forest 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.

Indicator 8.1.1 requires that "Program Participants will provide a written policy acknowledging a commitment to recognize and respect the rights of Indigenous Peoples." The 2015 Transitional Minor Non-conformance against SFI Indicator 8.1.1 was closed before December 31, 2015; the program continues to be in conformance. Each management plan now contains a written policy acknowledging a commitment to recognize and respect the rights of Indigenous Peoples.

No new non-conformances were identified in the 2016 audit.

2016 Opportunities for Improvement

Three opportunities for improvement (OFIs) were identified in the 2016 audit:

1. There is an Opportunity for Improvement by completing site level plans for ESAs in the western forests.

SFI Indicator 1.1.1 requires "Forest management planning at a level appropriate to the size and scale of the operation, including: ... (i) a review of non-timber issues."

2. There is an Opportunity for Improvement by including in forest management plans more information (known by forest managers) about the role of conifers in the natural history, historic composition, and ecology of higher-elevation portions of the western forests.

SFI Indicator 1.1.1 requires “Forest management planning at a level appropriate to the size and scale of the operation, including: ... (i) a review of non-timber issues.”

3. There is an Opportunity for Improvement in the trail program, where funding for trails maintenance may not be adequate for the need.

SFI Indicator 5.4.1 requires participants to “Provide recreational opportunities for the public, where consistent with forest management objectives.”

Exceptional Practices

There were seven areas where the finding was “Exceeds the Requirements”:

1. The MD DNR program exceeds the requirements for promoting conservation of native biological diversity.

SFI Indicator 4.1.1 requires a “Program to incorporate the conservation of native biological diversity, including species, wildlife habitats and ecological community types at stand and landscape levels.”

2. The MD DNR program exceeds the requirements for retaining stand-level wildlife habitat elements.

SFI Indicator 4.1.2 requires the “Development of criteria and implementation of practices, as guided by regionally based best scientific information, to retain stand-level wildlife habitat elements such as snags, stumps, mast trees, down woody debris, den trees and nest trees.”

3. The MD DNR program exceeds the requirements for the protection of threatened and endangered species.

SFI Indicator 4.2.1 requires a “Program to protect threatened and endangered species.”

4. The MD DNR program exceeds the requirements for providing an exceptional range of high-quality recreational opportunities State Forests.

SFI Indicator 5.4.1 requires participants to “Provide recreational opportunities for the public, where consistent with forest management objectives.”

5. The MD DNR’s use of information and expert advice or stakeholder consultation in the identification special sites for protection exceeds the requirements for this indicator.

SFI Indicator 6.1.1 requires the “Use of information such as existing natural heritage data, expert advice or stakeholder consultation in identifying or selecting special sites for protection.”

6. The Maryland Forest Service has an exceptional program for outreach, education and involvement related to sustainable forest management.

SFI Indicator 12.2.1 requires “Periodic educational opportunities promoting sustainable forestry, such as

- a. field tours, seminars, websites, webinars or workshops;
 - b. educational trips;
 - c. self-guided forest management trails;
 - d. publication of articles, educational pamphlets or newsletters; or
 - e. support for state, provincial, and local forestry organizations and soil and water conservation districts.
7. The Maryland Forest Service has implemented an exceptional program for contact with local stakeholders over forest management issues.

SFI Indicator 13.1.2 requires “Appropriate contact with local stakeholders over forest management issues through state, provincial, federal or independent collaboration.”

(Appendix 4) AWP Review Summary and Comments as received

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; Interdisciplinary Team, Citizens Advisory Committee, and public comment period. (See copies of all written comments attached.)

Interdisciplinary Team (ID Team)

As the first layer of this review process, the DNR ID Team met on September 21, 2016, the content of the AWP was reviewed and site visits were conducted to a number of the proposed management sites. As a result of the review and discussion, it was noted that planned trail closures should be posted on the Maryland Forest Service website and State Forest web page.

Proposals within the AWP that are expected to involve trail closures of a week or more (generally those scheduled for harvest, or significant trail maintenance work) were edited to include a statement advising that not only will "...the affected sections of trail will be posted and closed, with visitors being redirected to other trails in the area. *If the trail is to be closed for longer than a week, notices will be posted at the affected trail heads, as well as on the MD Forest Service Website and State Forest webpage.*" This edit was made to the following sections:

X. Silvicultural Proposals

Comp 32 Stand 8

Comp 32 Stand 18

Comp 39 Stand 13

VI. Recreation Proposals

A. National Recreation Trail Grant Requests 1&2

The ID Team had no other specific comments or concerns.

Citizens Advisory Committee

The 2nd layer of review was by the PGSF Citizens Advisory Committee which met on October, 27, 2016. As a result of the review and discussion, the CAC had no concerns over the proposals as written within the plan. Comments were received concerning the way the budget information is presented. Noting that budget information would be more useful if presented with a look at how the budget compares to prior year's figures in order that concerned citizens could determine if funds are increasing or decreasing for the given year.

In response to the budget comment, this section was revised to reflect the current fiscal year budget as it compares to the prior 10 year average including a summary table indicating budget distributions over the past 10 years.

The CAC had no other specific comments or concerns, and supported the plan as written.

Public Comments:

The FY-18 AWP was posted to the MD Forest Service website and State Forest web page for a 30 day comment period. A public notice was sent to media outlets announcing the comment period. No public comments were received regarding the Potomac-Garrett State Forest AWP.

Aside from these edits and the addition of the received written comments as an appendix, no other changes have been made to the plan as written.

Attached are copies of comments as received:



Summary of ID Team Comments

Potomac Garrett State Forest

ID Team Annual Work Plan FY 2018

September 21, 2016

Attendance

John Denning, Jason Savage, Noah Rawe, Jeff Sweitzer (NRP), Donnie Oates (Parks), Leonard Cage (MDE), George Eberling, Jack Perdue, Rick Latshaw (W&HS - Wildlife), Ed Thompson (W&HS - Natural Heritage), Alan Klotz (Fisheries), John Wilson (LAP).

Compartment 32 Stands 89 and 18



This area was damaged by hurricane Sandy. There are understory issues with for the dewberry. The plan is to regenerate the stand but because of the extent of dewberry present will be concerns for regeneration. Dewberry is a sign of the former pastured land. This area will be treated with herbicide and fenced after harvest. The hawthorn that is present on the site is a sign of poor soils. A hiking/snowmobile trail is adjacent to the stand. The trail will be closed while the forest harvest is active.

Announcements of trail closures will be made on the Maryland Forest Service website and the State Forest webpage.

We would like to link to the Departments geo-maps and hiking information.

The watercourse will be buffered using the $50' + 4' / \text{slope}$ formula.

We would like to somehow market the state forests silvicultural program, promoting the fact that this is a working forest, that forest certification programs have declared it to be sustainably managed, and the other public benefits that are achieved through state forest management. The ID Team visited this site and no other concerns were offered.

Compartment 33 - Stand 2



This area has the same situation as Compartment 32 - Stand 8. It was damaged during the same storm event and is adjacent to the hiking trail. The trail will be closed during the forest harvest. The area adjacent to the ESA will also be buffered. This area will be treated the herbicide as well. The ID Team visited this site and no other concerns were offered.

Compartment 39 - Stand 13



This is a noncommercial White Pine release. The necessary manual work will not require trail closure. The objective to this proposal and stand management is to promote and expand the White Pine component in this area. The ID Team visited this site and no other concerns were offered.

Compartment 39 - Stand 13

This harvest will be adjacent to part of the hiking trail. This treatment will remove the trees on the other side of the trail to reduce the safety issue of the damaged trees. The ID Team visited this site and no other concerns were offered.

Compartment 39 - Stand 12



Management goals for this stand are to further the development of the oak/pine cover type by promoting the growth and eventual regeneration of the native white pine in the stand. The site is adjacent to the 5.5 Mile Hiking Trail. The trail will be closed during harvest

The ID Team visited this site and no other concerns were offered.

Compartment 41 - Stand 8



Management goals for this stand are to begin regenerating the stand using a two-stage shelterwood harvest while providing additional protection and improved growing conditions for the red spruce and balsam fir components. The stand has a good black cherry component. It also has red spruce and balsam fir, which is a rare forest component. The ID Team visited this site and no other concerns were offered.

**Closing Notes**

The ID Team visited no other sites. There were no other comments regarding proposals from this annual work plan.

CAC Comments sent following meeting

From: **Sull McCartney** >

Date: Wed, Dec 7, 2016 at 5:01 PM

Subject: 2018 Draft Work Plan

To: John Denning -DNR- <john.denning@maryland.gov>

John,

As the fisheries representative on the advisory board I see no problems with the draft work plan. I am certainly in favor of the continued attempts to establish red spruce along streams to provide shading in the very likely event we lose hemlock from the forest.

The work done on Lostland Road looks like it will reduce sediment going into that valuable brook trout stream. The surface looks very good although the height creates a problem in places. I understand that there were no funds for regrading the whole road prior to stone placement.

Sull McCartney

John R. Denning

November 6, 2016

Forest Manager

Potomac Garrett State Forest

John:

During our Board meeting of October 27th, 2016 I found it difficult to decipher the numbers in the Operational Management and Budget section of the FY-18 plan.

The difficulty arose due to the incomplete data available since, obviously, the FY-18 plan had not been put into effect. I have found in previous meetings that the same conditions persist; the budget is simply a guess.

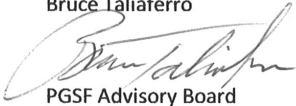
I am not aware of regulations you must obey when compiling future budgets. I do, however, have some suggestions that could make the annual plans more understandable.

Instead of putting your best guess down, I suggest that you indicate trends by listing budget data for the last 5 years that precise numbers are available and then suggesting an average for the current plan being developed. This number would probably reflect a more accurate representation of the final results for the current plan.

This method would serve two purposes. First, the reader could grasp the budget numbers as "real" since they would be able to see actual results from the last five years and realize that current estimates should follow results from past years. Second, the reader would be able to see that salaries, contractual staffing, and funding has remained static for years. This could result in more awareness of the problems associated with running PGSF under existing budgets.

I hope that this information will be helpful in making future plans more readable and in providing public knowledge concerning the difficulty faced by Forest Managers in caring for our State Forests.

Bruce Taliaferro



PGSF Advisory Board