

POTOMAC / GARRETT STATE FOREST

ANNUAL WORK PLAN

FISCAL YEAR 2014



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Potomac-Garrett State Forest
FY-14
Annual Work Plan



**Potomac- Garrett State Forest
FY-14 Annual Work Plan**

<u>Page #</u>	<u>Contents</u>
5	I. State Forest Overview
5	II. AWP Summary
	III. General Location Maps
7	– Map Key
8	– Potomac State Forest
9	– Garrett State Forest
	IV. Special Projects – Forest Resource Management and Planning
10	A. Certified Sustainable Management Plan Development
10	B . ESA Management Plan Development
11	C .Forest Stand Delineation and Inventory
	V. Maintenance and Operations
12	A. Maintenance & Management of Roads and Trails
12	B. Boundary Line Maintenance
13	C. Campground Operation and Maintenance
13	D. 3-D Archery Range Maintenance and Management
13	E. Interpretation and Education
	VI. Recreation Proposals
14	Potomac-Garrett State Forest Trail / Access Improvement Plan
	VII. Wildlife Habitat Improvement Proposals
19	Comp. 23/24 Wildlife Opening - proposal
20	Comp. 23/24 Wildlife Opening - map
21	Comp. 32 Wildlife Opening - proposal
22	Comp. 32 Wildlife Opening - map
23	Comp. 44 Wildlife Opening - proposal
24	Comp. 44 Wildlife Opening - map

VIII. Watershed Protection

- 25 Comp. 19 – Lostland Run HWA Mitigation/Red Spruce Planting
Proposal (extension FY-12 proposal)
- 27 **Comp. 19 – Lostland Run HWA Mitigation/Red Spruce Planting Map**

IX. Ecosystem Restoration / Protection Projects

- 28 Comps. 5&7 – Backbone Mtn. Japanese Knotweed Control (Continuation of
FY-12 Proposal)
- 30 Comps. 5&7 – Backbone Mtn. Japanese Knotweed Control Map
- 31 Comps. 21-26 – Wallman/Laurel Run Garlic Mustard Control (Continuation of
FY-12 Proposal)
- 32 Comps. 21-26 – Wallman/Laurel Run Garlic Mustard Control Project Map

X. Silvicultural Proposals

- 33 Comp. 12 -Stand 6 Non – Commercial TSI / CTR Proposal
- 34 Comp. 12 -Stand 6 Non – Commercial TSI / CTR Map
- 35 Comp. 16– Stand 2 Regeneration Harvest Proposal
- 37 Comp. 16– Stand 2 Regeneration Harvest Map
- 38 Comp. 26– Stand 6 Non-Commercial Conditioning Proposal
- 40 Comp. 26– Stand 6 Non-Commercial Conditioning Map
- 41 Comp. 32– Stand 30,29,25 Non-Commercial TSI/ CTR Proposal
- 42 Comp. 32– Stand 30,29,25 Non-Commercial TSI/CTR Map
- 43 Comp. 34- Stand 3 Regeneration Harvest Proposal
- 45 Comp. 34- Stand 3 Regeneration Harvest Map
- 46 Comp. 37- Stand 1 Non-Commercial Conditioning Proposal
- 48 Comp. 37- Stand 1 Non-Commercial Conditioning Map
- 49 Comp. 39 -Stand 14 Non-Commercial Conditioning Proposal
- 50 Comp. 39- Stand 14 Non-Commercial Conditioning Map
- 52 Comp. 46- Stand 1 Non-Commercial Conditioning Proposal
- 54 Comp. 46- Stand 1 Non-Commercial Conditioning Map

55 XI. Operational Management and Budget Summary

56 Appendix 1 – 10 Year Harvest Summary

56 Appendix 2 – Annual Work Plan Review Summary of Comments

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-2014 Annual Work Plan for Potomac-Garrett State Forest details three “*special management*” projects and eleven *land management projects* that will be the focus of the State Forest management staff for FY-14.

A. Special Management Projects Include:

- Continued development of the Potomac-Garrett State Forest Sustainable Forest Management Plan, with special focus on addressing items in need of improvement as identified in the 2012 FSC/SFI Certification Audits.

- Working with regional Natural Heritage Biologist to develop management plans for the Ecological Significant Areas identified within the Potomac-Garrett State Forest Sustainable Forest Management Plan.

- The fifth and final summer season of the 5 year Forest Stand Delineation and Inventory Project.

- Oversight and management of Access Trail Improvement project utilizing a grant and contracting out over \$1,000,000 earmarked for improving access trails throughout the forest. See section VI. Recreation Proposals for summary of work planned.

B. Land Management Projects Include:

Three *wildlife habitat projects* involving improvements to several grassy openings.

One continued *watershed protection project* mitigating impacts of a harmful forest pest; Hemlock Woolly Adelgid mitigation / Red Spruce Restoration.

Two continued *ecosystem restoration projects* involving control of invasive, exotic plants in both the Wallman/Laurel Run area and the Backbone Mtn. area.

Eight *silvicultural projects* including:

- Two commercial regeneration harvests using a clear cut with variable retention. on sites with well established oak regeneration.

-Six non-commercial practices:

-Two non-commercial Timber Stand Improvement (TSI) projects involving Crop Tree Release in poletimber sized stands focused at improving stand quality and condition in young stands for the future.

-Four non-commercial Timber Stand Improvement (TSI) projects involving shelterwood systems, with a initial 'conditioning or preparatory' work in which interfering, undesirable vegetation is removed creating conditions suitable for desired seedling development. These projects require an investment up front to assure sustainable and diverse forest ecosystems for the future.

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

The FY-14 Work Plan calls for the harvest of approximately 300,000 Bd.ft. of hardwood saw timber, putting an estimated \$70,000 worth of raw wood products out into the local markets. With the repeated Gypsy Moth infestations and weather related damages to the State Forests oak stands in the past decade, much of the silvicultural work laid out in this work plan is focused on initiating seedling development to better insure oak regeneration successes in future harvests. Much of the value of the harvests in the work plan will be directed back into the forest providing the essential investment in pre-harvest cultural work that will assure the long term sustainable management of these important forest resources.

The cultural operations and management projects outlined within the FY-14 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-14 Land Management proposals.

Map Key

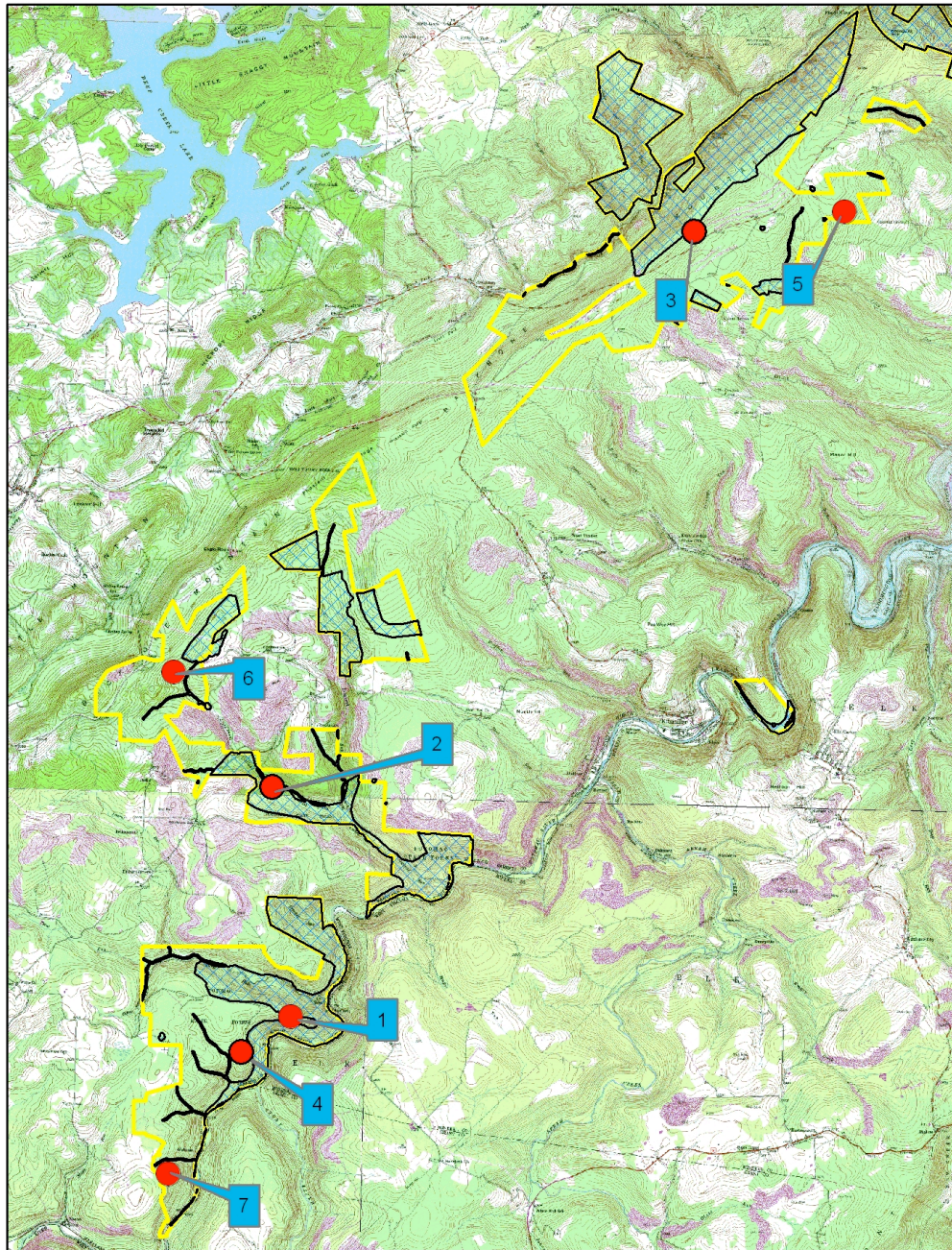
Potomac State Forest

- 1) Comp. 23 – Wildlife Opening
- 2) Comp. 18-21 – Watershed Protection
- 3) Comp. 5&7 – Ecosystem Restoration
- 4) Comp. 21-26 – Ecosystem Restoration
- 5) Comp. 12– Crop Tree Release
- 6) Comp. 16 – Regeneration Harvest
- 7) Comp. 26 – Non-Commercial TSI

Garrett State Forest

- 1) Comp. 32 – Wildlife Opening
- 2) Comp. 44 – Wildlife Opening
- 3) Comp. 32 – Crop Tree Release
- 4) Comp. 34 – Regeneration Harvest
- 5) Comp. 37– Non-Commercial TSI
- 6) Comp. 39 – Non-Commercial TSI
- 7) Comp. 46 – Non-Commercial TSI

Potomac State Forest FY-14 General Location Map

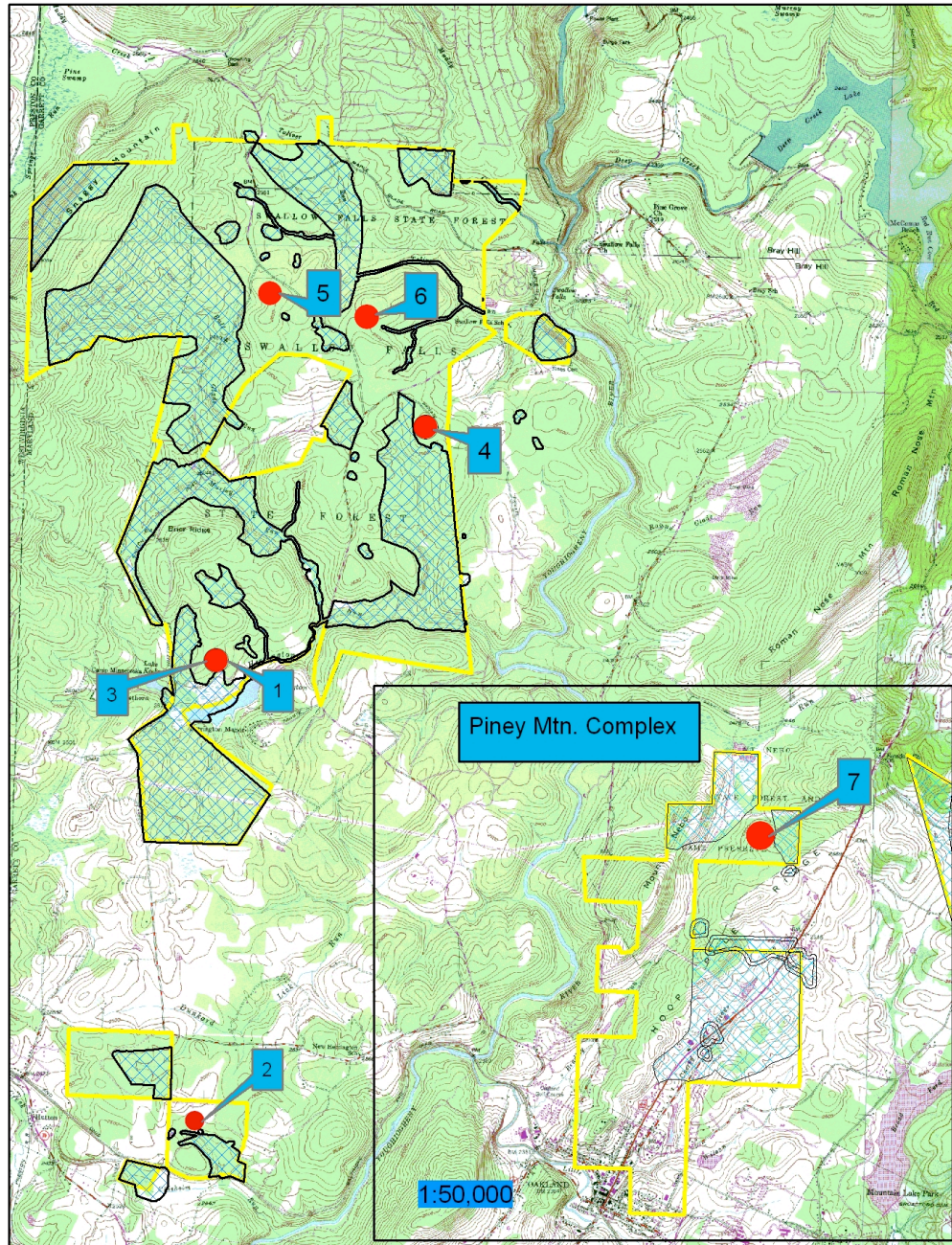


1:100,000

 High Conservation Value Forest (Total)



Garrett State Forest FY-14 General Location Map



1:60,000

 High Conservation Value Forest (Total)



IV. Special Projects - Forest Resource Management Planning

A. Certified Sustainable Forest Management Plan Development

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

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

Audit findings indicate a number of 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. State Forest staff time and field operations have been adjusted and redirected to assist in addressing all of 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 2012, these areas will be reviewed with the region's Natural Heritage Biologist to develop site specific management plans to identify conservation measures appropriate for each ESA. This will be done in order that these significant features are not just assumed protected by steering direct management activity away from them, but rather actively identifying appropriate management practices that may increase the stability and long term existence of the communities and habitats that make up these ESAs. These ESA plans will be incorporated into the Potomac-Garrett State Forest Sustainable Forest Management Plan before the next audit cycle.

C. Forest Stand Delineation and Inventory

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 will involve collecting detailed inventory data on both overstory and understory conditions over the entire State Forest. The data will be collected and analyzed using the SILVA Inventory System developed by the USFS. Full time forest management staff attended a week long training course on the use of this system in June of 2010.

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

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 Throughout the State Forests

PGSF staff maintains 59 mi. of roads and trails including 37 miles of improved road and 22 mi. of multi-use trails. This work is ever ongoing. A lack of sufficient road maintenance budget makes the upkeep of this road and trail system a considerable challenge. In order to attempt to meet this challenge, alternative sources are continuously sought to provide the necessary equipment, labor and materials required for the maintenance and improvements needed to sustain this aging and primitive transportation system.

In FY-14, maintenance staff will be involved in the coordination of private contractors carrying out over \$1,000,000 worth of planned capital improvements to the multiple-use and motorized-use access trail system. As this will require considerable attention, maintenance staff will concentrate any remaining time on basic maintenance on the segments of multiple-use and motorized-use trails that have rehabilitated using National Recreation Trail Grants over the past 5 years.

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

B. Boundary Line Maintenance

PGSF has 130 miles of boundary line, including interior lines, exterior lines, and road frontage. Boundary maintenance is critical to the management of all public lands. In order to keep up with this effort, PGSF maintains approximately 30 miles of line each year. In addition to routine marking/painting, considerable effort is spent on researching relocating or establishing missing and/or new line, as well as addressing boundary conflicts. As conflicts arise, every effort is made to resolve the issue in a timely and professional manner. Often, this work leads to the need for a licensed surveyor and legal recourse in order to resolve the issue. The FY-14 planned budget request will include funds to carry out survey needs identified in the Backbone Mountain Complex of the Potomac State Forest.

C. Campground Operation and Maintenance

PGSF offers year round, primitive camping in five separate areas of the State Forest; Lost Land 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. Between 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 are 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. The State Forest hosts a summer fun league, an annual tournament shoot, as well as a fall 'hunters special' shoot.

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

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 \$1,000,000 of this will be directed to improving the public access and trail network on the Potomac -Garrett State Forests according to the following plans:

Potomac-Garrett State Forest Trail / Access Improvement Plan

The Potomac-Garrett State Forest has a diverse network of some 59 miles of multi-use trails and roads. Much of this infrastructure was built in the 1940s by the Civilian Conservation Corps. The road and trail locations and their design are not ideal under current standards and user demands, creating a situation where routine maintenance alone cannot adequately keep up with failing conditions of this aging infrastructure. As access road and trails fail, not only is public access reduced, but eroding conditions jeopardize precious water quality, aquatic habitats and sensitive plant and animal species being protected by our public forest lands.

The following projects are being designed to restore function and stability to 18.2 miles of the existing access road and trail network on the Potomac State Forest an additional 31.6 miles on the Garrett State Forest and at least 1.2 miles of new trail to provide better continuity and flow to the existing system. Additional adjustments and additions to the network will be designed in where necessary to improve overall trail function and service to visitors. Permitted use on any given trail is dependent upon trail location and site suitability. All new trail system proposals as well as maintenance work will be submitted and reviewed through the Annual Work Plan process.

The following list offers brief description of a number of planned 'Recreational Access and Trail Restoration Projects' being considered for the Potomac - Garrett State Forests. Projects have been broken out by Complex location for design and planning purposes.

GARRETT STATE FOREST ROJECTS

Snaggy Mtn. Nested Loop Trail System - Garrett State Forest

Will restore, improve and develop 28.6 miles of multi-use trails and access roads found on the 5,499 acre Snaggy Mt. Complex of the Garrett State Forest. These multiple use trails form a nested loop trail system that offers a variety of visitor /user options. The system complements the trail network within the adjoining Herrington Manor and Swallow Falls State Parks. This work will improve public access and recreation opportunities on the State Forest lands and the adjacent State Parks; improving recreational opportunities for: biking, hiking, fishermen, ATV/ORV and snowmobile use, hunting, camping access, horseback riding, and other nature based recreation.

Work will include grading and reshaping road and trail beds, correcting/restoring drainage, replacement of failing water control devices (culverts, ditches, swales etc.) bridge repairs and replacements, resurfacing, parking lot improvements, trail relocation and re-routes as well as some new construction to improve upon or provide functioning loop connections. Partners in

trail improvement design include The Garrett Trails Organization, OPSS –Oakland People Powered Sports, and Garrett College Adventure Sports Program. Trails to be addressed:

Snaggy Mtn. Road/ORV Trail 3.2 miles

Improved gravel road which provides vehicle access to campsites and day use areas.

Watchable Wildlife Trail .25 miles

Foot traffic only.

Snaggy Mtn. Ski Trails 6.7 miles

Groomed skiing surface when snow is present, and in the off season, these trails are great for other non-motorized use.

Snaggy Mtn. Snowmobile Trail 8.5 miles (includes the 3.2 miles of Snaggy Mtn. ORV Trail)

A network of unimproved forest roads. When snow is not present, the trail is great for non-motorized activities.

Herrington Creek Handicapped Hunter Access Road .5 mile

Improved gravel road open to vehicle traffic, with a permit, during the hunting season. Non-motorized use welcome year round.

Maple Glade Handicapped Hunter Access Road .25 mile

Improved gravel road open to vehicle traffic, with a permit, during the hunting season. Non-motorized use welcome year round.

Maple Glade Road 1.9 miles

Improved gravel road that provides access to Swallow Falls State Park.

Maple Glade Fishermen's Access Trail 0.5 miles

Unsurfaced forest trail, offering access Muddy Creek. Non-motorized use only.

5-1/2 Mile Hiking Trail 5.5 miles

Unsurfaced trail, width varies from single track, to two track, ungroomed skiing during the winter. Non-motorized use only

Toliver Trail .7 mile

Unimproved forest access road.

Maryland Bicentennial Oak Trail .3 mile

Unsurfaced forest trail, non-motorized use only.

Wilderness Ranch Access Trail 1.8 miles

Unsurfaced forest road, non-motorized use only

Proposed new trail 1.2 miles

To be developed as an unsurfaced , single track trail well suited to biking and hiking.

Shared Access Road 0.5 miles

Improved gravel road that provides access to Snaggy Mt. Complex of Garrett State Forest.

Herrington Manor State Park Ski Trails 2.7 miles

Groomed skiing surface when snow is present; in the off season, these trails are great for other non-motorized use. (Connect directly to the 6.7 miles of Ski Trails on the Garrett State Forest.)

Fire tower Road 0.7 miles

Improved gravel road that provides access to ‘Wilderness Ranch’ area of Garrett State Forest.

Piney Mtn. Recreational Access and Trail Restoration Project

Will restore 3.0 miles of multi-use trail and access road. Improving public access to 1,359 acres of State Forest lands to increase recreational opportunities for: handicapped hunters, ATV/ORV and snowmobile use, hiking, biking, hunting, horseback riding, and other nature based recreation. Work will include grading and reshaping road and trail beds, correcting/restoring drainage, replacement of failing water control devices (culverts, ditches, swales etc.) and stone resurfacing and parking lot improvements. Trails to be addressed:

Piney Mtn. ORV/Snowmobile Trail 2.5 miles

Unimproved forest road, a portion of a power line right of way, and also includes the entire Piney Mtn. Road/Trail. When snow is not present, non-motorized use welcome.

Piney Mtn. Handicapped Hunter Access Road .5 mile

Improved gravel road open to vehicle traffic, with a permit, during the hunting season. Non-motorized use welcome year round.

Hutton Recreational Access and Trail Restoration Project

Will restore 1.2 miles of multi-use trail and access road. Improving handicapped public access to 387 acres of historic State Forest lands; the birthplace of Maryland’s State Forest and Park System, part of the original 2000 acre donation of land given to the State in 1906 from which to develop a scientific forestry service. This work will increase recreational opportunities for: handicapped hunters, hiking, biking, hunting, horseback riding, and other nature based recreation. Work will include grading and reshaping road and trail beds, correcting/restoring drainage, replacement of failing water control devices (culverts, ditches, swales etc.) and stone resurfacing and parking lot improvements. Trails to be addressed:

Kindness Demonstration Area Handicapped Hunter Access Road 1.2 miles

Improved gravel road open to vehicle traffic, with a permit, during the hunting season. Non-motorized use welcome year round.

POTOMAC STATE FOREST PROJECTS:

Wallman / Laurel Run Recreational Access and Trail Restoration Project

Will restore 6.3 miles of multi-use trails and access roads. Improving public access to 2,419 acres of State Forest lands and Potomac River Access to increase recreational opportunities for: fishermen, ATV/ORV and snowmobile use, hiking, biking, hunting, campsite access, horseback riding, and other nature based recreation. Work will include grading and reshaping road and trail beds, correcting/restoring drainage, replacement of failing water control devices (culverts, ditches, swales etc.) and stone resurfacing and parking lot improvements. Trails to be addressed:

Wallman Road/ORV Trail 3.9 miles

Improved gravel road which provides vehicle access to campsites, day use areas, and fishing areas.

Laurel Run Road/ ORV Trail 2.4 miles

Improved gravel road which provides vehicle access to campsites, day use, and fishing areas.

Lostland Recreational Access and Trail Restoration Project

Will restore 3.0 miles of multi-use trail and access road. Improving public access to 2,189 acres of State Forest lands and Potomac River Access to increase recreational opportunities for: fishermen, hiking, biking, hunting, campsite access, horseback riding, and other nature based recreation. Work will include grading and reshaping road and trail beds, correcting/restoring drainage, replacement of failing water control devices (culverts, ditches, swales etc.) and stone resurfacing and parking lot improvements. Trails to be addressed:

Lostland Run Road / Trail 3.0 miles

Improved gravel road which provides vehicle access to campsites, day use, and fishing areas as well as trail heads for the 3.5 mile long Lostland Run Hiking Trail.

Burkholder Road Recreational Access and Trail Restoration Project

Will restore 2.7 miles of multi-use trail and access road. Improving public access to 4,725 acres of State Forest lands to increase recreational opportunities for: ATV/ORV and snowmobile use, hiking, biking, hunting, horseback riding, and other nature based recreation. Work will include grading and reshaping road and trail beds, correcting/restoring drainage, replacement of failing water control devices (culverts, ditches, swales etc.) and stone resurfacing and parking lot improvements. Trails to be addressed:

Burkholder Road/ORV Trail 2.7 miles

Improved gravel road.

North Hill Recreational Access and Trail Restoration Project

Will restore 2.0 miles of multi-use trail and access road. Improving public access to 980 acres of State Forest lands to increase recreational opportunities for: hiking, biking, hunting, horseback riding, and other nature based recreation. Work will include grading and reshaping road and trail beds, correcting/restoring drainage, replacement of failing water control devices (culverts, ditches, swales etc.) and stone resurfacing and parking lot improvements. Trails to be addressed:

North Hill Road/Trail 2 miles

Semi-improved dirt/gravel road, open during the hunting seasons to vehicle traffic, non-motorized use welcome year round.

VII. Wildlife Habitat Improvements

COMPARTMENTS 23/24

FY-14

Description

The Wallman area of the Potomac State Forest contains a wide mix of habitat conditions ranging from early succession forest through mature forest and conifer cover and including a limited amount of ‘permanently maintained grassy openings’ that are regularly maintained within this expansive forested tract. With the right mix of grasses and legumes, these openings provide a protein rich source of food for various wildlife species. The rich grasses also attract a variety of bugs, crickets, grasshoppers, beetles, etc., that are a further source of protein to bugging turkey and grouse. Without further maintenance, these grassy areas eventually revert back to weedy areas with limited grass and legumes, lessening their wildlife food value. In the past few years, seven such areas in the Wallman Area have been rehabilitated through the cooperative efforts of the Backbone Mt. Chapter of the Ruffed Grouse Society, Safari Club International and MD DNR. With the most recent rehab work being done on the 3 small grassy openings that straddle the ridge line between compartments 23 and 24.

These three openings totaling approx. 1 acre, are surrounded by narrow bands of conifers made up of Red Pine and Norway Spruce. These stands were planted in 1968, and have matured to the point of crowding the small fields as their crowns expand. In 2012, the openings were 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. While carrying out this work, it became evident that the openings were being heavily shaded by the surrounding conifer plantations, reducing growth potential of the grass/legume mix being planted.

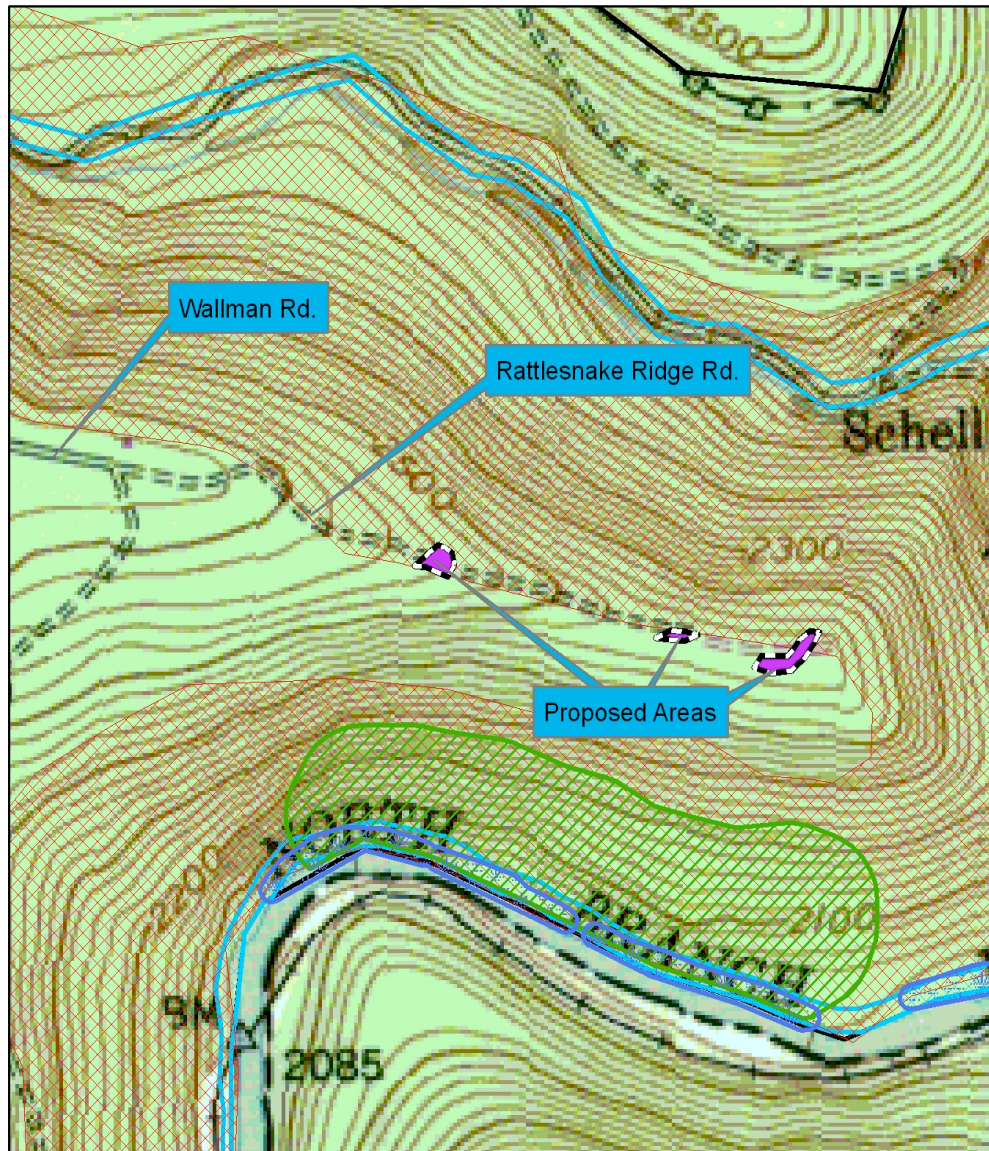
The slopes below these ridge top sites contain an area of HCVF that provides protection to a number rare, threatened or endangered plant and animal species and an Old Growth Management Area. The openings generally have an eastern aspect and are within the Potomac River Watershed. The underlying soils include: “Dekalb and Gilpin very stony loams” on 5-15% slopes. These soils are moderately deep and well drained. They are not well suited to cultivation due to the abundance of larger sandstones 10 inches and greater. Though not well suited to cultivation, grasses and legumes may be planted using minimum tillage methods, eg. frost seeding and no till methods. Equipment limits and erosion potential are slight.

Management Recommendation

The proposed treatment for these three grassy openings is to “feather” the field edges by cutting the large trees within the first 55-75 feet of the field edges, varying the depth to provide a more natural, irregular edge around the perimeter of the fields. Conifer trees will be either cut and pushed into brush piles around the outer edges, or removed where there is any commercial value. Hardwoods will be either “hinge-cut” or felled and left on the ground while dormant, to provide additional wildlife cover to serve as protection to any developing seedlings and sprouting stumps. Travel corridors will be left in the brush piled around the field edge to insure that wildlife can readily travel between the field and surrounding woodlands. The objectives will be to both provide additional sunlight to reach the grassy fields, and to soften the hard edge around these fields with an early succession stage of hardwoods.

The completed project will enhance the habitat values of the small openings which offer an important food source for a variety of wildlife species including grouse, turkey, deer and a variety of non-game species.

Compartment 23 Wildlife Openings FY-14



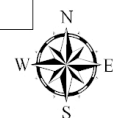
Compartment..... 23
 Area.....1 Acre
 Species Mix..... Field

0 230 460 920 1,380 1,840 Feet

39 20' 23.42" N 79 16' 00.23" W

HCVF Components

-  PGSF_HCVF_OLD_GROWTH_300FT_BUFFER
-  PGSF_HCVF_OLD_GROWTH_MGT_UNIT
-  Wildlands
-  PGSF_HCVF_WSSC_100_FTBuffer
-  PGSF_HCVF_ESA
-  PGSF_HCVF_BLUE_LINE_50FT_BUFFER
-  PGSF_Wetlands_50 ft_Buffer



Description

This area is located south of Snaggy Mountain Snowmobile Trail, within Compartment 32 of the Garrett State Forest. It is situated upslope of the HCVF associated with the Herrington Manor Lake. The HCVF offers protection to several threatened or endangered plants, a wetland of special state concern, and the habitat of a rare butterfly. The site is a long and narrow, 2 acre permanent wildlife opening. The field is bordered by the pole timber stands slated for further management in this Annual Work Plan. The field edge has alternating blocks of pole timber and brushy sapling cover that DNR staff has created by hinge cutting the pole timber and leaving it on the ground to protect the developing seedlings and stump sprouts. Presently, the area is made up of various perennial and annual weeds and grasses offering limited bugging and nesting areas for a variety of wildlife species.

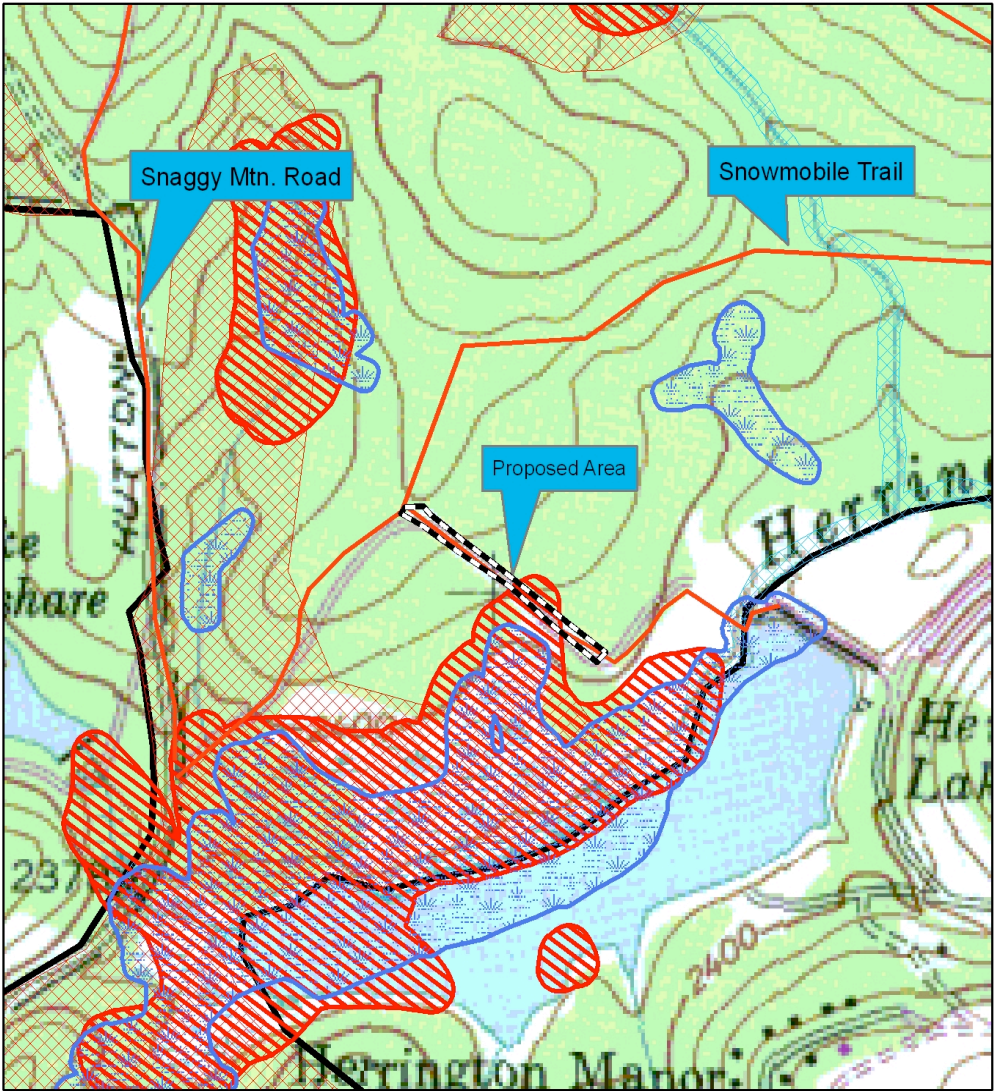
The site has a south-eastern aspect and drains to the HCVF and the Herrington Manor Lake, part of the Youghioghny River system. Underlying soils include 'Cookport channery loams' and 'Ernest silt loams'. These soils are moderately well drained to somewhat poorly drained. The subsoil contains a medium textured plow layer; a dense tough fragipan or heavy clay which results in saturated soils near the surface in wet weather. Equipment limits can be moderate due to seasonally perched water table. Degree of slope ranges from 0-8% throughout the site. The productivity of the site is very good with site index of 75-85 for Red Oak and Black Cherry .

Management Recommendations

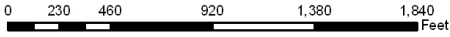
The proposed treatment for the field is to lime, fertilize, and reseed with a grass, forbs and legume mix that will serve as a quality food source that will be beneficial to a wide range of wildlife species. Surface preparation of the grassy openings will include brush hogging and herbicide application in the fall, with follow up spring treatments prior to planting if necessary. The seed mix to be used is a mix offered by the National Ruffed Grouse Society; "RGS Grouse Trail Mix", which contains 'Star Fires Red Clover', 'Hunt Club Brand White Clover', 'Plot Enhancer Brand Chicory', Alsike Clover', 'Birds foot Trefoil', and 'Crimson Clover'. This mix has been formulated especially for the harsh growing conditions found on log landings and skid trails, and has proved to work well on these types of sites.

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 32 Wildlife Opening FY-14



Compartment.....34
Area.....2 Acres
Species Mix.....Field



39 27' 30.87" N 79 27' 29.38" W

HCVF Components

- PGSF_HCVF_OLD_GROWTH_300FT_BUFFER
- PGSF_HCVF_OLD_GROWTH_MGT_UNIT
- Wildlands
- PGSF_HCVF_WSSC_100_FTBuffer
- PGSF_HCVF_ESA
- PGSF_HCVF_BLUE_LINE_50FT_BUFFER
- PGSF_Wetlands_50 ft_Buffer



**COMPARTMENT 44 - Stand 14
(Kindness Demonstration Area Field)**

FY-14

Description:

This 2 acre field is located within Compartment #44 which is part of the Kindness Demonstration Area of the Garrett State Forest. The Demonstration Area was established to exhibit all manner of forestry and wildlife management practices. This field was established as a permanent grassy opening in 1993. At that time the perimeter of the field was cut back approx. 66 feet to provide a soft brushy edge of protective cover around the field. The brushy edge of hardwoods has matured into open pole timber that no longer provides the desired protective cover and soft edge around the field.

The site has a slight southern aspect and drains toward an un-named tributary of Chisholm Run, part of the Youghiogheny River drainage system. This site sits upslope of an area of HCVF that provides protection to an ESA that contains habitats for various threatened and endangered plants and animals.

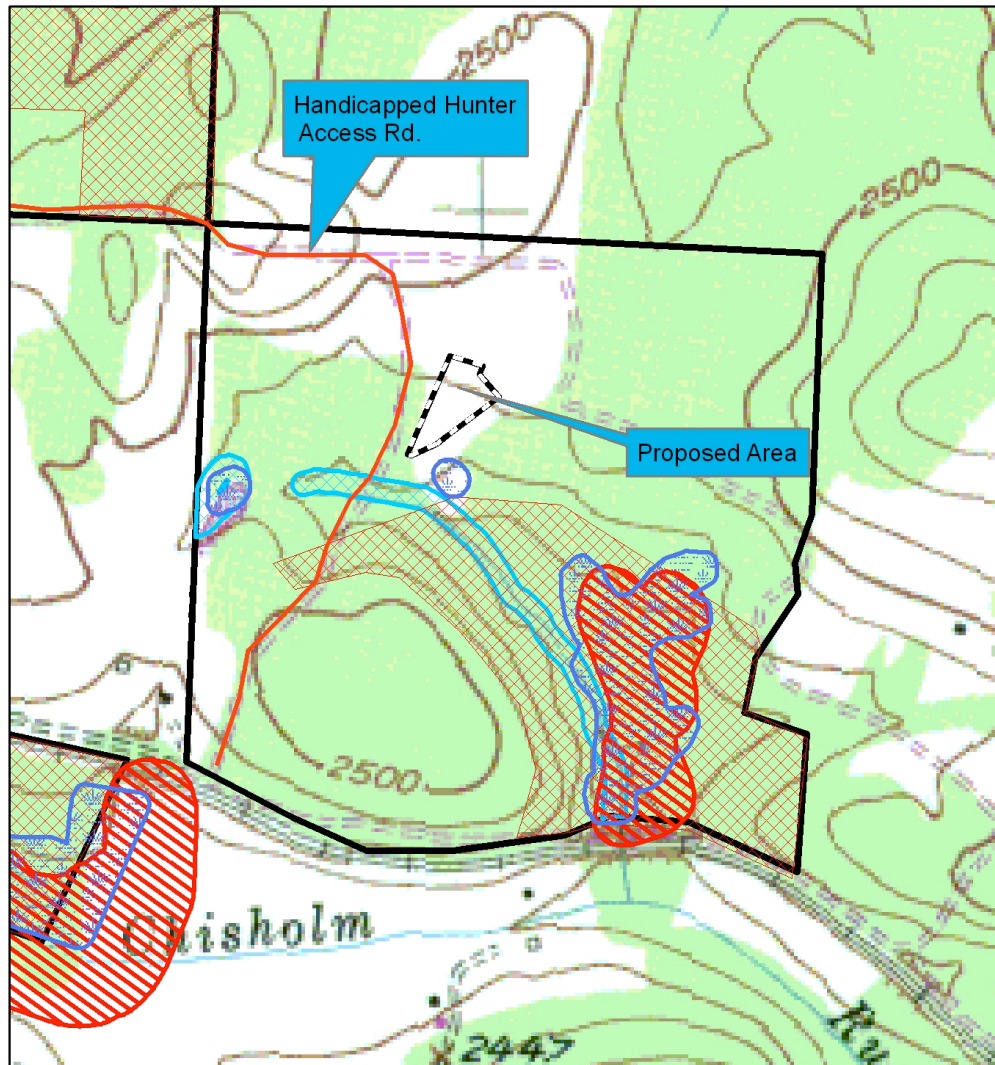
Underlying soils include 'Cookport and Ernest very stony loams'. These soils are moderately deep and moderately well drained to somewhat poorly drained. Equipment limits can be moderate due to seasonally perched water table. Degree of slope ranges from 0-8% through out the site. The productivity of the site is fair-good with site index of 55-60 for White Oak.

Management and Silvicultural Recommendations:

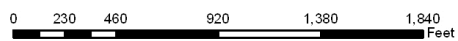
The proposed treatment for the field is to restore the "feathered" edge by cutting the large trees within the first 55-75 feet of the field edges, varying the depth to provide a more natural, irregular edge around the perimeter of the fields. Conifer trees will be either cut and pushed into brush piles around the outer edges, or removed where there is any commercial value. Hardwoods will be either "hinge-cut" or felled and left on the ground while dormant, to provide additional wildlife cover to serve as protection to any developing seedlings and sprouting stumps. Travel corridors will be left in the brush piled around the field edge to insure that wildlife can readily travel between the field and surrounding woodlands. The objective will be to both provide additional sunlight to reach the grassy fields, and to soften the hard edge around the fields with an early succession stage of hardwoods.

The completed project will enhance the habitat values of this small opening which offers an important food source for a variety of wildlife species including grouse, turkey, deer and a variety of non-game species. This practice will serve to demonstrate the habitat improvement technique of maintaining a soft edge around fields and openings.

Compartment 44 Stand 14 FY-14



Compartment.....44
 Area.....2 Acres
 Species Mix.....Field



39 24' 51.20" N 79 27' 30.03" W

- HCVF Components**
- PGSF_HCVF_OLD_GROWTH_300FT_BUFFER
 - PGSF_HCVF_OLD_GROWTH_MGT_UNIT
 - Wildlands
 - PGSF_HCVF_WSSC_100_FTBuffer
 - PGSF_HCVF_ESA
 - PGSF_HCVF_BLUE_LINE_50FT_BUFFER
 - PGSF_Wetlands_50 ft_Buffer



VIII. Watershed Protection

COMPARTMENT 19

FY-14

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 US 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 no readily 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.

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.

While the Lostland HWA population seems to be minor and somewhat stable, 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.

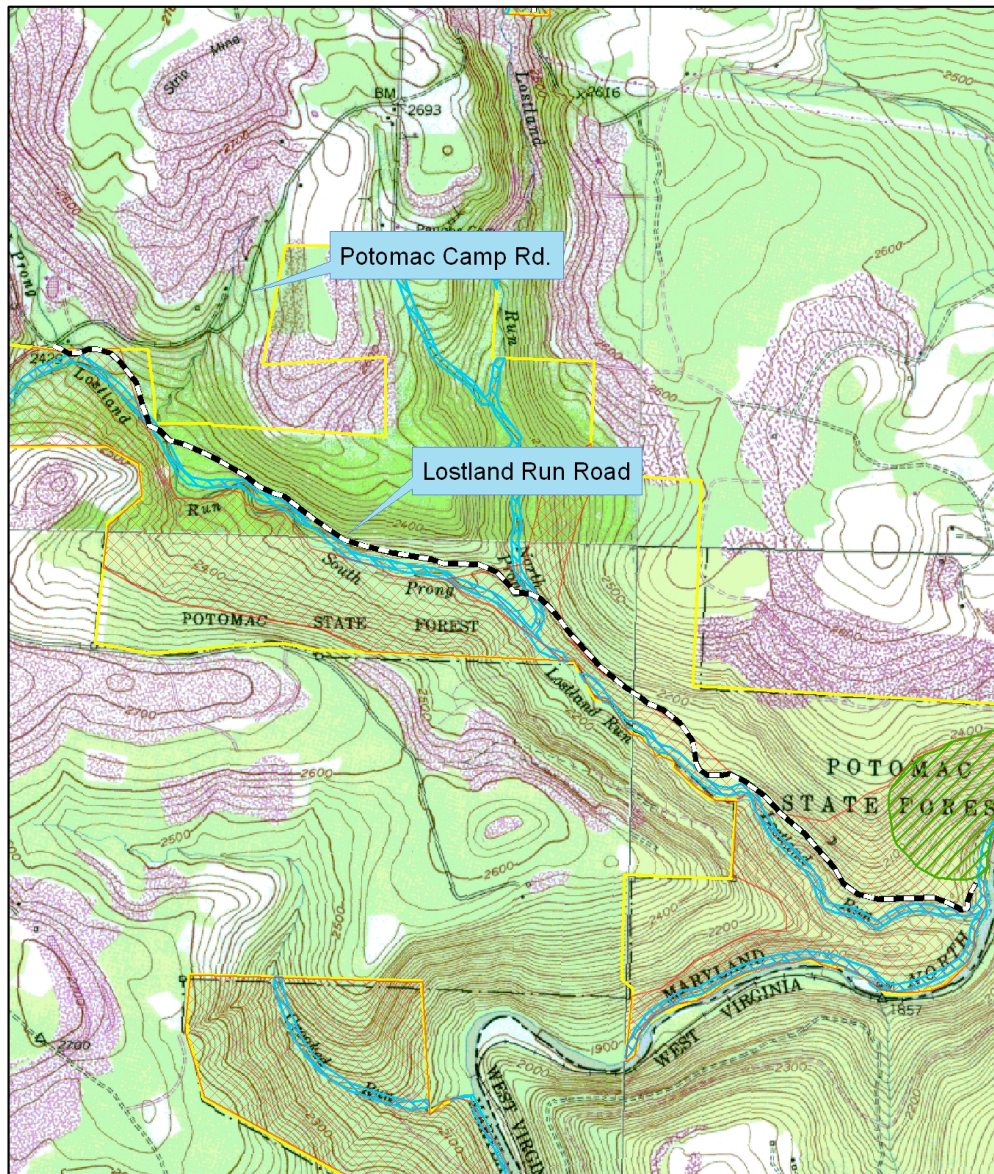
Further research and experimentation with control of the available light is necessary to determine if under planting with Red Spruce is a viable option that may offer a natural means of offsetting the negative impacts associated with the likely loss of the hemlock stands along this important brook trout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

Management Recommendation

The plan for this site in the fall of 2012 is to establish three 1-acre planting sites that will have varying levels of understory light controls carried out by thinning 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 is met. Each of the sites will be planted with 100 Red Spruce seedlings in the spring of 2013. The tops of all trees that are cut will be left on the forest floor to serve as a protection from deer browsing the seedlings. All hardwood stumps will be treated with appropriate herbicide to prevent resprouting, allowing the seedlings to fully develop with out reoccurrence of limiting shade provided by hardwood sprouting. The plantings will be monitored for survival success. Successful treatments will be duplicated the following year 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.

Compartments 18,19,20,21 Lostland Run HWA Mitigation/ Red Spruce Underplanting FY-14



Compartments.....18,19,20,21
Quad.....Deer Park, Gorman
Mt. Storm, Kitzmiller

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

1:24,000

HCVF

- PGSF_HCVF_OLD_GROWTH_300FT_BUFFER
- PGSF_HCVF_OLD_GROWTH_MGT_UNIT
- WILDLANDS
- PGSF_HCVF_WSSC_100_FTBuffer
- PGSF_HCVF_ESA
- PGSF_HCVF_BLUE_LINE_50FT_BUFFER
- PGSF WETLANDS WITH 50' BUFFER



IX. Ecosystem Restoration / Protection Projects

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 appropriate control of 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.

Populations of two invasive exotic plant species have been identified as being in need of control on PGSF, they are Japanese Knotweed (*Polygonum cuspidatum*) and garlic mustard (*Alliaria petiolata*). The following efforts are being taken to limit the impacts of these invasive species.

COMPARTMENTS 5&7

FY-14

Japanese Knotweed Control Project Continued – Backbone Mt.

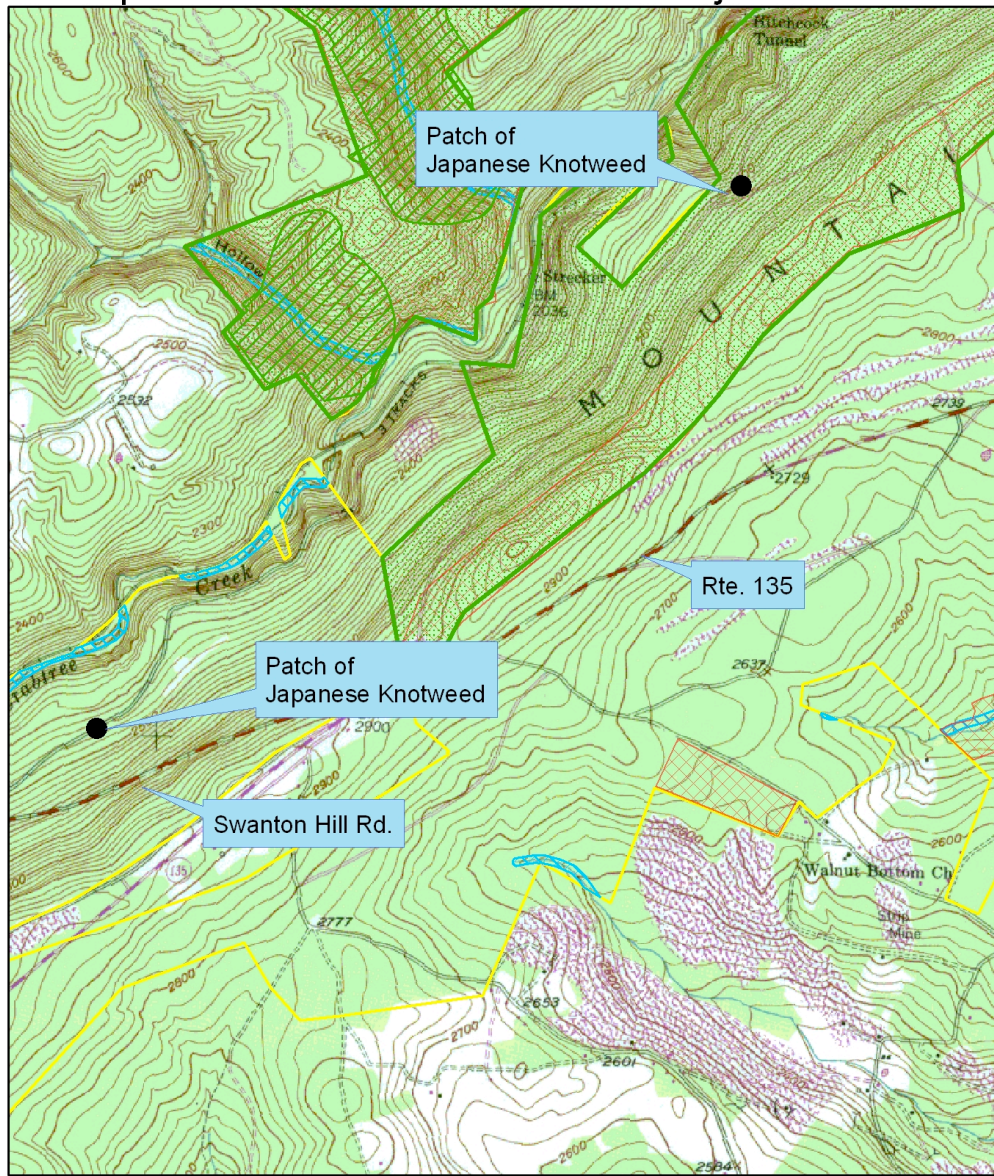
Ongoing Project

Within the Potomac State Forest, Japanese Knotweed is well established along the base of Backbone Mountain following the railroad bed at the base of the mountain. It has overtaken much of the lower reaches of Crabtree Creek which runs along the railroad grade. However, within the State Forest, its spread has been generally limited to the base of Backbone Mountain; the area associated with the railroad and Crabtree Creek. In recent years, two ‘patches’ have been found on the upper slopes of Backbone Mt. The first is located on the roadside edge of a section of the State Forest access road that serves as the Backbone Mt. ORV trail. This road defines the upper boundary of the Crabtree Slopes Special Management Zone. The second and smaller population is located along a gated forest access on the east side of Swanton Hill Road. State Forest staff has been working to restrict the spread of these populations by mowing the roadsides prior to seed development. In 2004, as an educational program for the Maryland Conservation Corps., an effort was made to eliminate the plant colony by strictly mechanical means including mowing and later grubbing out the plants roots and rhizomes. This effort was not successful. Mechanical controls alone cannot eliminate this aggressive plant invader.

In 2005 and 2006, in a cooperative effort between MD DNR Wildlife and Heritage Service, MDA Plant Protection and Weed Management Program, and Potomac-Garrett State Forest staff took an integrated pest management approach toward the control of these knotweed populations. Carefully timed mechanical and chemical treatments were applied to the plant colonies. The areas were mowed just prior to seed development, and later following re-sprouting, but just before the start of fall dormancy, the plants were sprayed with an appropriate herbicide (*glyphosate*). In 2009, 2010, 2011 and 2012 only a few individual plants were present, and they were treated with the same mechanical and herbicide treatments. These areas will continue to be monitored annually and follow-up treatments will be applied as necessary to prevent reestablishment of these colonies.

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Compartment 5 Backbone Mtn. Japanese Knotweed Control Project FY-14



Compartment.....5
 Quad.....Kitzmiller
 39 27' 24.63" N 79 12' 59.11" W
 Scale 1 : 24000

HCVF	
	PGSF OLD GROWTH WITH 300FT BUFFER
	PGSF_HCVF_OLD_GROWTH_MGT_UNIT
	WILDLANDS
	PGSF WSSC WITH 100FT BUFFER
	PGSF ESA
	PGSF BLUE LINE STREAM WITH 50FT BUFFER
	PGSF WETLANDS WITH 50' BUFFER



Garlic Mustard Control Project Continued - Wallman/Laurel Run**Description**

Garlic Mustard is one of the most prevalent invasive plants found in Maryland. It can be found throughout the Potomac-Garrett State Forest, where it frequently occurs in moist, shaded soil of river floodplains, forests, road sides, edges of woods and trail edges and forest openings. Disturbed areas are most susceptible to rapid invasion and quick establishment of dominance. Though invasive under a wide range of light and soil conditions, garlic mustard is associated with calcareous soils and does not tolerate high acidity.

Garlic mustard poses a severe threat to native plants and animals in forest communities in much of the eastern and Midwestern United States. Many native wildflowers that complete their life cycles in the springtime occur in the same habitat as garlic mustard. Once introduced to an area, garlic mustard outcompetes native plants by aggressively monopolizing light, moisture, nutrients, soil and space. Wildlife species that depend on these early plants for their foliage, pollen, nectar, fruits, seeds and roots, are deprived of these essential food sources when garlic mustard replaces them. Humans are also deprived of the vibrant display of beautiful spring wildflowers.

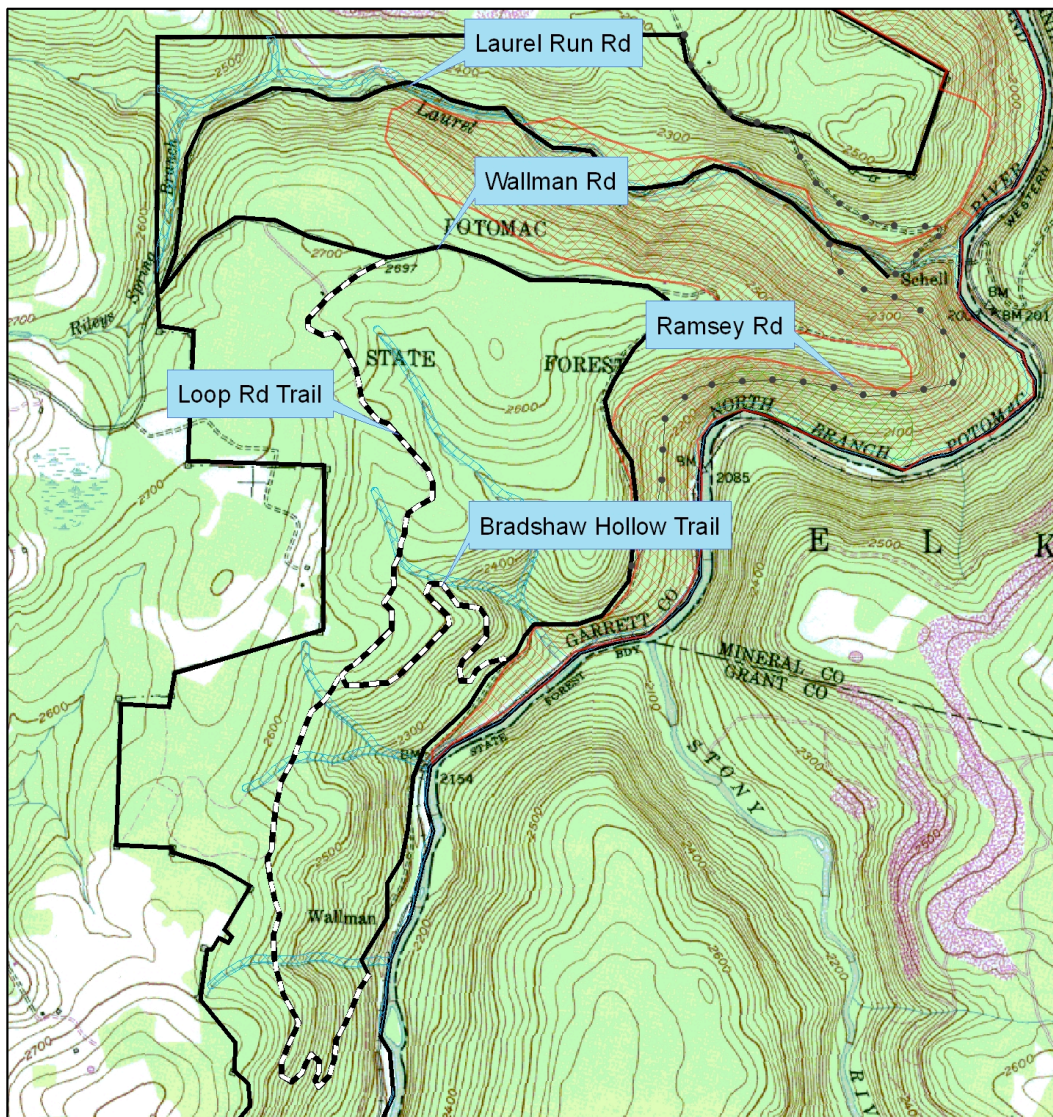
Garlic mustard also poses a threat to one of our rare native insects, the West Virginia White butterfly (*Pieris virginiensis*). Several species of spring wildflowers known as "toothworts" (*Dentaria*), also in the mustard family, are the primary food source for the caterpillar stage of this butterfly. Invasions of garlic mustard are causing local extirpations of the toothwort, and chemicals in garlic mustard appear to be toxic to the eggs of the butterfly, as evidenced by their failure to hatch when laid on garlic mustard plants. Natural Heritage biologists have conducted inventories of West Virginia White butterflies in this area, and will monitor the population's response to the control efforts. On an even larger scale, recent research indicates that garlic mustard may be allelopathic to important beneficial mycorrhizal fungi, and therefore may retard forest tree regeneration.

Management Recommendation

As with most invasive plants, complete elimination is often neither practical nor possible, especially at a forest-wide level. However, a management goal of protecting specific, ecologically significant areas (ESA) is often feasible using accepted control measures. A number of ESAs have been identified within the Wallman/Laurel Run area of the Potomac State Forest as being jeopardized by adjacent garlic mustard populations. These ESAs contain at least 9 known Maryland rare, threatened or endangered species that could be negatively impacted if garlic mustard overtakes these ESAs. Critical garlic mustard colonies have been mapped, and evaluated for control priority. Total acreage infested is approximately 1 acre, with this acre comprised of numerous small patches spread out along nearly 5 miles of road edge, and several pockets of infestation under closed canopy away from the roads.

Treatments have involved an initial two-year planned spray program in which glyphosate herbicide will be applied in three applications. The first application was carried out in October of 2009, followed by an early spring 2010 application to catch any survivors of the Oct. 09 treatment and early spring germinants. A return visit was made in spring (2011) in which any survivors or first-year plants newly recruited from the soil seedbank were treated. The area will be monitored for at least two more years to ensure exhaustion of the residual seed bank in the soil. Herbicide application will be done using a combination of backpack allowing target specific application. Natural Heritage NNIS specialists are reviewing these treatments and the overall effects, and are developing an approach to address this problem species beyond the limits of the initial project, and out into the greater Wallman / Laurel Run / Lostland Run Areas.

Compartments 21, 22, 23, 24, 25, 26 Wallman/Laurel Run Garlic Mustard Control Project FY -14



Compartments.....21, 22, 23, 24, 25, 26
Quad.....Gorman

39 20' 24.65" N 79 16' 20.22" W

Scale: 1: 24000

HCVF	
	PGSF OLD GROWTH WITH 300FT BUFFER
	PGSF OLD GROWTH MGT UNIT
	WILDLANDS
	PGSF WSSC WITH 100FT BUFFER
	PGSF ESA
	PGSF BLUE LINE WITH 50FT BUFFER
	PGSF WETLANDS WITH 50' BUFFER



X. Silvicultural Proposals

COMPARTMENT 12 Stand 6

FY-14

Description

This area is located to the west of the Backbone Mt. Handicapped Hunter Access Road, within Compartment 12 of the Potomac State Forest. There is no HCVF associated with the site. The stand includes approximately 30 acres of 30 year old mixed hardwood, sprout origin, pole timber with an average diameter of 7 ½ inches. This fully stocked stand is dominated by Black Cherry which accounts for 46% of the stand, with Red Maple making up an additional 31%. The stand is growing at approximately 4.2%/ year. Although at the present stocking, growth rate is beginning to slow, and natural mortality is increasing due to crowding.

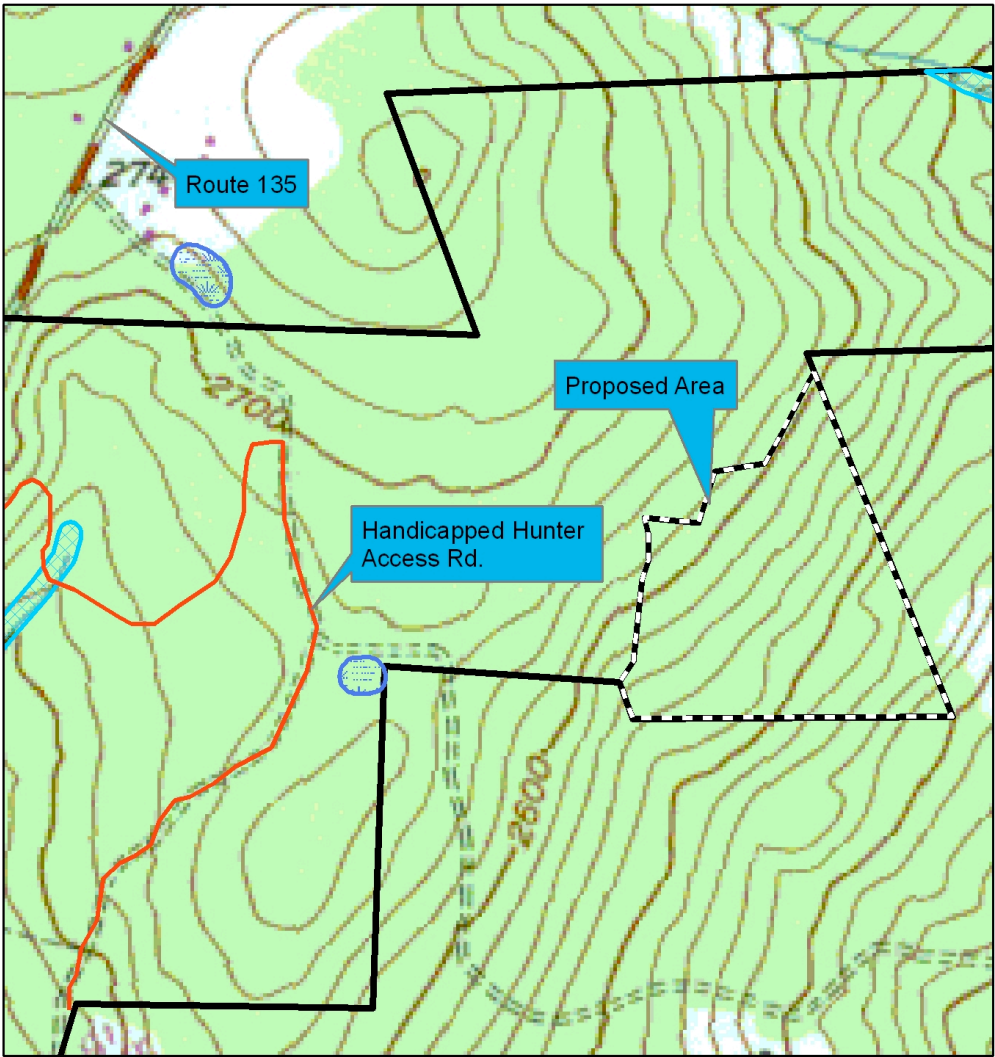
Underlying soils include: 'Dekalb and Gilpin very stony loams'. The soils are well drained and very acidic. Stones, generally acid sandstones, more than 10 inches in diameter are abundant. Degree of slope ranges from 0-25% throughout the site. Equipment limits are slight to moderate based on slope. The site has good productivity for woodland management, with site index of 65 for Black Cherry. The site has a south-eastern aspect and falls within the Potomac River watershed.

Management and Silvicultural Recommendations

In an effort to improve the overall quality and condition of the stand, and to retain the very limited oak component, a non-commercial, timber stand improvement (TSI) practice in the form of a Crop Tree Release (CTR) will be carried out. During this operation, approximately 30-60 trees/acre will be selected as future crop trees. These crop trees will be released from crown competition on all sides. In selecting potential crop trees, special emphasis will be given to the release of Oaks for their mast producing potential and wildlife benefits; while most of the effort will concentrate on releasing the best quality Black Cherry stems. The volumes in the trees to be removed for this release work will not support a commercial sale, and the poor access to the site will restrict opportunities for small scale firewood operators. This work will be carried out as a non-commercial practice utilizing both directed application of herbicide to targeted trees of seedling origin, and felling undesired trees of stump sprout origin.

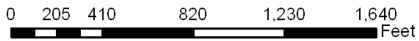
This Crop Tree Release will improve the survival rate among the desirable oak species and improve the overall quality and condition of the higher value Black Cherry trees found on this site.

Compartment 12 Stand 6 FY-14



Approx. Acres.....	30
Age.....	32
Forest Type.....	Allegheny Hardwood
Trees/Acre.....	817
Basal Area.....	129
AGS.....	106
Stocking.....	98%
Growth Rate.....	4.2%
Composition.....	Black Cherry 46%
	Red Maple 31%
	Birch 9%

HCVF Components	
	PGSF_HCVF_OLD_GROWTH_300FT_BUFFER
	PGSF_HCVF_OLD_GROWTH_MGT_UNIT
	Wildlands
	PGSF_HCVF_ESA
	PGSF_HCVF_WSSC_100_FTBuffer
	PGSF_HCVF_BLUE_LINE_50FT_BUFFER
	PGSF_Wetlands_50 ft_Buffer



39 28' 21.34" N 79 09' 09.10" W



Description

This area is located on the south side of Upperman Road, approx. 0.3 mile east of the intersection of Upperman Road and Eagle Rock Road, within Compartment #16 Stand 2 of the Potomac State Forest. The stand lies down stream, and across the county road from a mapped HCVF (High Conservation Value Forest) which includes an Ecologically Significant Area known as the Upperman Bog. The bog area includes several wetlands of special State concern and provides protection to a number of threatened and endangered plants and invertebrates. This stand had been subjected to moderate Gypsy Moth defoliations in the 1990's. Mortality as a result of the insect infestation appears to have been minor. The oaks in the stand appear to have responded to the stress placed on them by producing a strong acorn crop in following years as evidenced by the abundant oak seedling cohort.

This 42-acre site contains a mature, 95 year old mixed oak stand. The overstory is made up primarily of Red Maple (33%) and mixed oaks including Northern Red Oak (27%), Chestnut Oak (12%), Scarlet Oak (7%) and White Oak (4 %). The stand is over stocked at 115% relative density and contains 152 sq.ft. BA/acre. The understory is moderately developed. At current deer densities, there is sufficient regeneration present to produce a fully stocked stand. Thirty-nine (39%) of the site is stocked with established and competitive oak seedlings assuring the likely presence of a strong oak component in future stand. 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 significant with 76+% of the site harboring some form of plant competition. This being primarily tall woody interference (70%) comprised of Witch Hazel (40%), with Black Birch (10%) and Striped Maple(9%). Problematic fern and grass densities occupy only a slight (11%) of the area and are not expected to be a problem with future management efforts. No non-native invasive species (NNIS) were observed in the stand inventory.

Underlying soils include: 'Dekalb and Leetonia very stony sandy loams' and 'Laidig very stony loams.' The soils are well drained and very acidic. Stones, generally acid sandstones, more than 10 inches in diameter are abundant. Degree of slope ranges from 0-25% throughout the site. Equipment limits are slight to moderate based on slope. The site has fair productivity for woodland management, with site index of 50 for Chestnut Oak. Of the 42 acres in this stand, 10 ac. are unsuitable for timber management, due to site limitations including excessive rock, and water sources at or very near the surface. This ridge top site has an eastern aspect and drains to an un-named headwater tributary of Lostland Run; part of the Potomac River drainage system.

Management and Silvicultural Recommendations

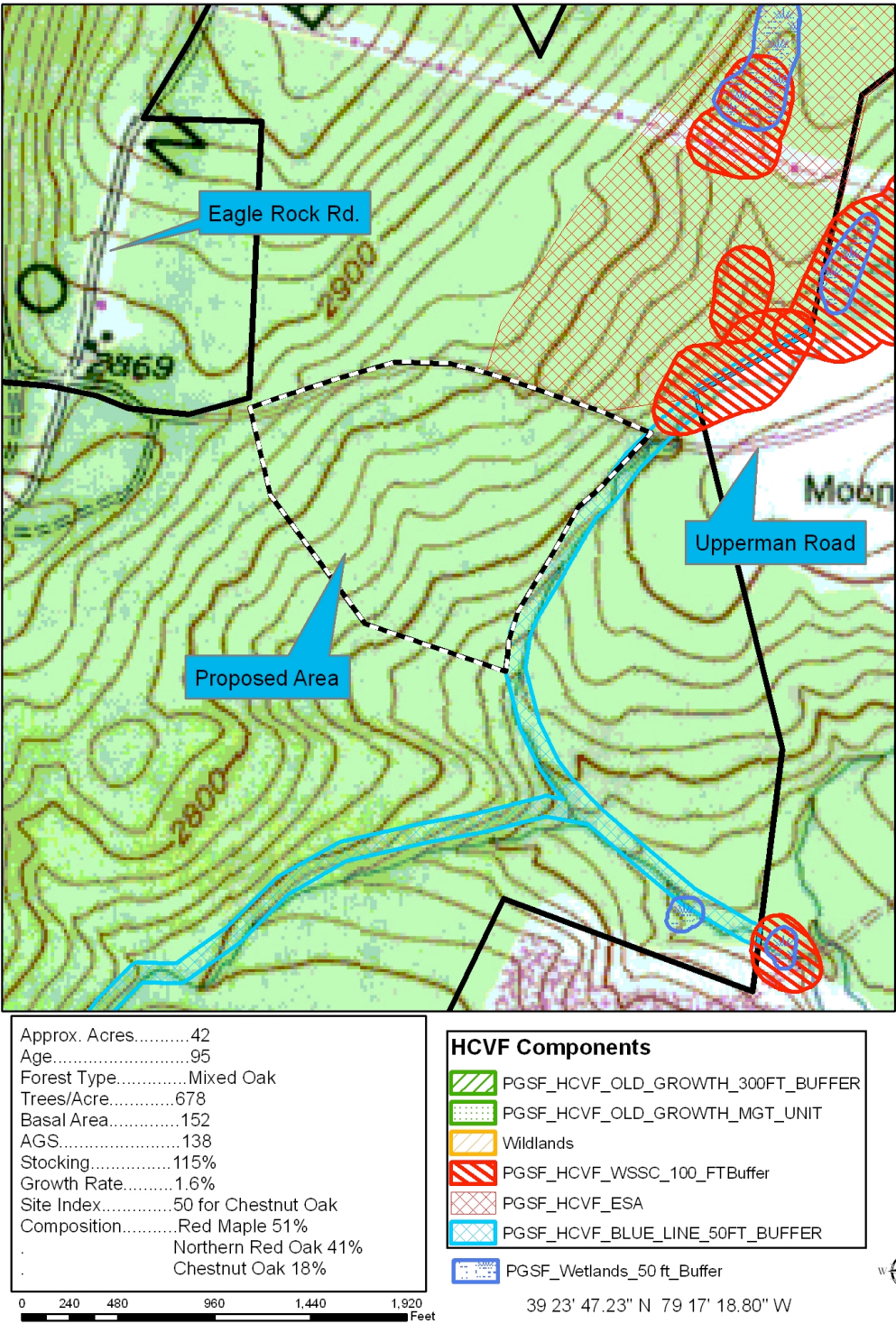
The proposed silvicultural treatment for this stand is to regenerate the stand using a clearcut with variable retention. This harvest will involve the cutting of the majority of the overstory trees. On this site, the retained forest will be concentrated within the rocky and wet areas on the lower slope of this stand, where approximately 25% of the acreage will be retained in its current condition. In addition to the large block of forest retained at the toe of the slope, where available, 1-2 snags and/or large cavity trees will be retained per acre. Particular emphasis shall be placed on retaining groups of dominant and co-dominant oaks associated with live den trees or snags.

In order to address the concern of woody interference competing with desired regeneration, all other trees greater than 2 inches DBH shall be cut and the timber contractor will be instructed to trample dense Witch Hazel brush where ever possible. These two practices along with the planned harvest of merchantable trees should reduce interference by woody plants to well within acceptable levels assuring successful regeneration of this mixed oak stand.

As deer impacts are expected to be moderate, all 'top-wood' /pulpwood from saw timber trees shall be left on the forest floor to deter excessive deer browsing of desired, established regeneration. Once desirable seedlings become competitive 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, established and competitive oak seedling cohort.

Compartment 16 Stand 2 FY-14



Description

This area has been approved for shelter-wood harvest in the FY-08 AWP. The timber was marked but did not draw sufficient interest, and subsequently was not sold. The amount of road improvement work necessary to get into this lower valued sale area made the project unattractive in a declining timber market. The site is located on the south end of the Loop Road Snowmobile Trail, in the south-west corner of Compartment #26 of the Potomac State Forest. Access to this compartment is provided by the snowmobile trail which also runs along the eastern edge of much of this stand. This site contains a 58-acre mixed hardwood stand comprised primarily of Northern Red Oak (36%), Red Maple (19%), White Ash (12 %), Sugar Maple (9%), and Hickory (9%). This mature hardwood stand is approximately 114 years old and has an average tree diameter of 15.3 inches. The stand is fully stocked at 92% relative density and contains 143 sq.ft. BA/acre. Beneath the dense canopy of this mature stand, there is very little understory. Only 19% of the stand contains competitive desired regeneration with oak seedlings found on 3%. Of the 58 acres in the stand, approximately 13 acres are located in stream buffers, wet areas or inoperable rocky areas much of which will be held as forest retention in later regeneration harvests. 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 also a significant factor with 63% of the site harboring some form of plant competition that is interfering with seedling germination and development. This plant interference includes tall woody stems on 27% of the site; comprised primarily of Witch Hazel (18%) and Birch (7%) as well as problematic fern and grass densities which occupy (36%) of the area. Non-native invasive species (NNIS) were observed in the stand inventory on or near 6% of sample plots. Garlic Mustard was recoded on or near 4% of the plots, and Multiflora Rose was recoded on or near 2%.

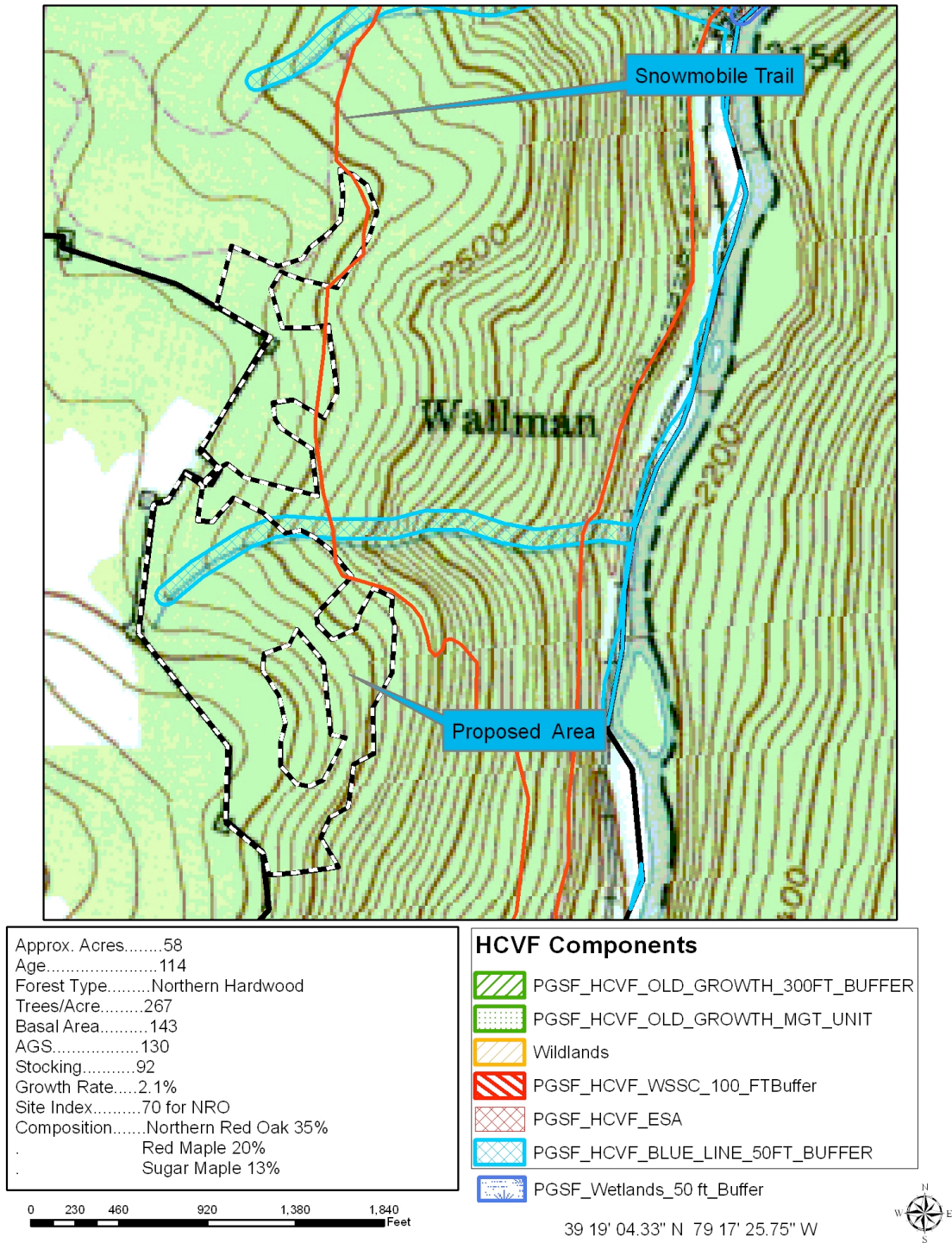
The site has an eastern aspect and is drained by unnamed tributaries within the Potomac River Watershed. The underlying soils include: "Dekalb and Gilpin very stony loams" on 10-15% slopes. These soils are moderately deep and well drained. Equipment limits and erosion potential are slight. Productivity is very good with site index of 70 for Red Oak.

Management and Silvicultural Recommendations

The planned treatment for this mature stand was to regenerate it using a two stage Shelterwood Method. The first stage was to consist of a commercial thinning. The stand was to be thinned to approximately 60% stocking in order to provide conditions suitable for the development of a well-stocked understory of hardwood seedlings. As the significant road improvements required of this job made this sale impractical as a commercial thinning, the proposal at hand is to revisit the site with a non-commercial approach. The goal is the same; establish a well stocked seedling understory that can be later released in a final harvest. However, the objective will be to control the stand density and subsequent light reaching the forest floor, by treating the competing, interfering vegetation in a combination ‘thinning from below’ and ‘herbaceous fern and grass control’ – both carried out using appropriate herbicide applications. Emphasis will be placed on the retention of mixed oak species in order to assure the likely development of oak regeneration in the next stand. Once sufficient, advanced regeneration has developed, the second and final stage of this shelter-wood system shall be initiated. This will be a ‘liberation cut’, in which the remaining overstory canopy shall be removed in order to release the newly developed regeneration from competition. (This second stage should take place in approximately 8 years.)

Herbicide treatments will not be carried out within the stream buffers in order to assure protection of all streams, springs, and wetlands per the guidelines set forth in the Potomac-Garrett State Forests Sustainable Forest Management Plan.

Compartment 26 Stand 6 FY-14



Description

This area is located along the south side of Snaggy Mountain Snowmobile Trail, within Compartment 32 of the Garrett State Forest. It is situated upslope of the HCVF offering protection to several threatened or endangered plants, a wetland of special state concern, and the habitat of a rare butterfly. The site includes 24 acres of mixed hardwood pole timber that has developed as a result of the salvage driven red pine clear cuts harvested in the early 1980s. The initial pine salvage was done as part of an effort to utilize the dead and dying non native red pines that were dying as a result of a pine beetle infestation. With the pine overstory removed, the moderately developed hardwood understory was released and has developed into this fully stocked poletimber stand with considerable variability across the site. The stand is dominated by Black Cherry which accounts for 61% stand, while 13% is Red Maple, 11% is White Oak. As witnessed on adjacent stands with similar soils, Red Maple and Black Cherry will typically out compete the White Oak on this rich site which is beginning to take place in this early stage of stand development.

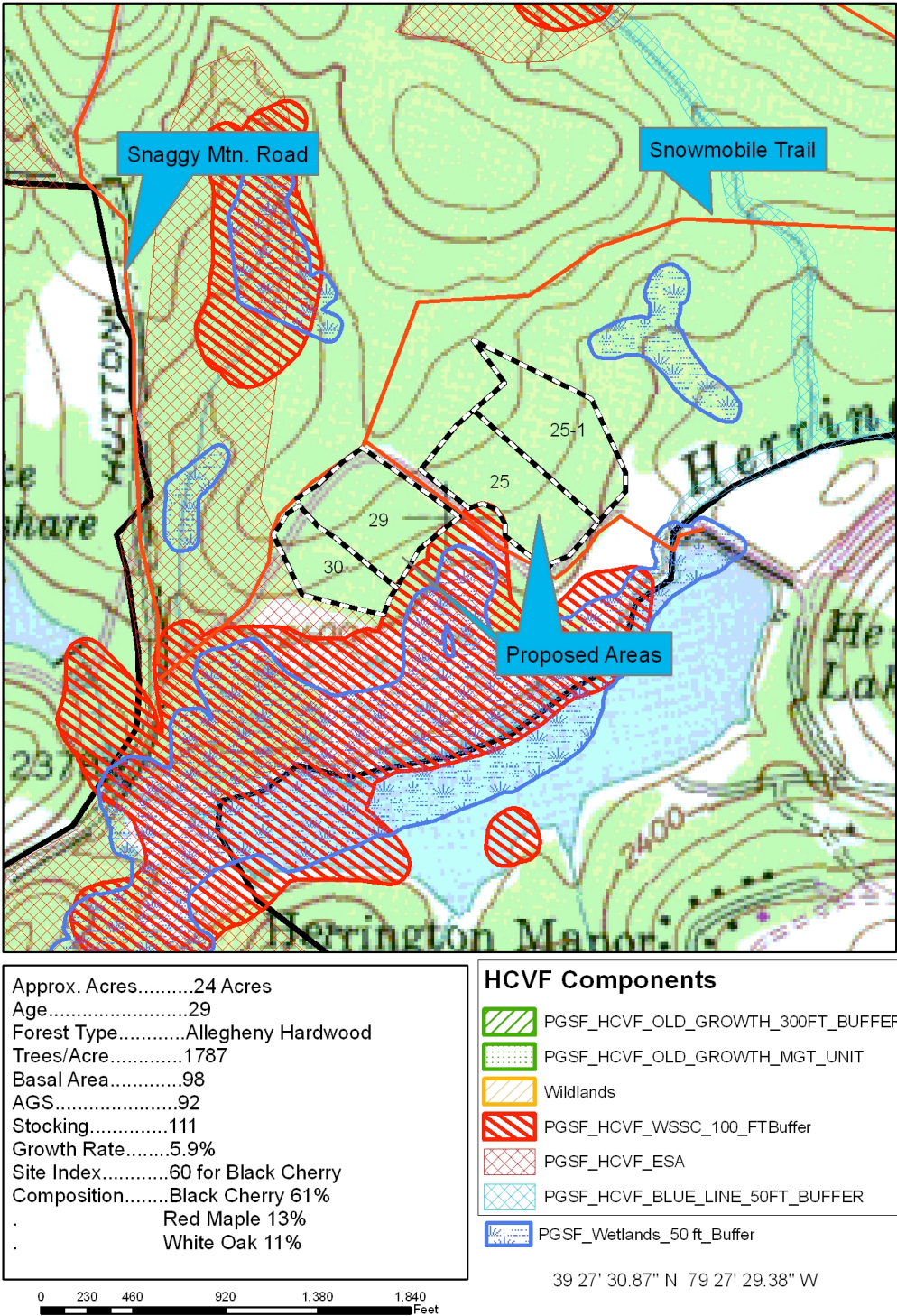
The site has a south-eastern aspect and drains to the HCVF and the Herrington Manor Lake, part of the Youghiogheny River system. Underlying soils include 'Cookport channery loams' and 'Ernest silt loams'. These soils are moderately well drained to somewhat poorly drained. The subsoil contains a medium textured plow layer; a dense tough fragipan or heavy clay which results in saturated soils near the surface in wet weather. Equipment limits can be moderate due to seasonally perched water table. Degree of slope ranges from 0-8% through-out the site. The productivity of the site is very good with site index of 75-85 for Red Oak and Black Cherry .

Management and Silvicultural Recommendations

In an effort to improve the overall quality and condition of the stand, and to retain much of the important and valuable oak component, a non-commercial, timber stand improvement (TSI) practice in the form of a Crop Tree Release (CTR) will be carried out. During this operation, approximately 30 trees /acre will be selected as future crop trees. These crop trees will be released from crown competition on all sides. In selecting potential crop trees, special emphasis will be given to the release of Oaks for their mast producing potential and wildlife benefits; as well as the best quality Black Cherry stems. The volumes in the trees to be removed for this release work will not support a commercial sale, though it may be attractive to small scale firewood operator. This work will be carried out as a small products firewood sale, or more likely, a non commercial practice utilizing both directed application of herbicide to targeted trees of seedling origin, and felling undesired trees of stump sprout origin.

This Crop Tree Release will improve the survival rate among the desirable oak species and improve the overall quality and condition of the higher value Black Cherry trees found on this site.

Compartment 32 Stands 30,29, & 25 FY-14



Description

This area is located on the west side of Mellott Road, beginning approx. 0.1 mile south of the intersection of Mellott Road and Swallow Falls Road, within Compartment #34 Stand 3 of the Garrett State Forest. The stand borders a mapped HCVF (High Conservation Value Forest). The HCVF area includes an Ecologically Significant Area known as the “Herrington Springs”, several “Wetlands of Special State Concern” and also provides protection to a number of threatened and endangered plants and invertebrates. The forest stand had been thinned in 1995 as the first stage of a 2-stage shelter-wood cut. This initial thinning resulted in a well established understory of competitive oak seedlings.

This 28-acre site contains a mature, 95 year old transitional mixed oak stand. The overstory is made up primarily of White Oak (34%) and Red Maple (31%), Black Cherry (21%), Northern Red Oak (4%), and Scarlet Oak (4%). The stand is fully stocked at 85% relative density and contains 100 sq.ft. BA/acre. The understory is well developed. At current deer densities, there is sufficient regeneration present to produce a fully stocked stand. Seventy-nine percent (79%) of the stand contains competitively established regeneration with forty-seven percent (47%) of the site being stocked with competitive oak seedlings ! With an additional 11% of the site containing established oak seedlings, assuring the presence of a strong oak component in the future. Deer browse pressure in this area is estimated to be low based on present stand development. However deer impacts on manipulated stands at this location are expected to be more moderate and must be addressed when considering regeneration efforts on this site.

Interfering plant competition is significant with 56% of the site harboring some form of plant competition; this being primarily problematic densities of fern and grass which occupy 42% of the area. Woody interference is minimal (11%) comprised primarily of Witch Hazel. No non-native invasive species (NNIS) were observed in the stand inventory.

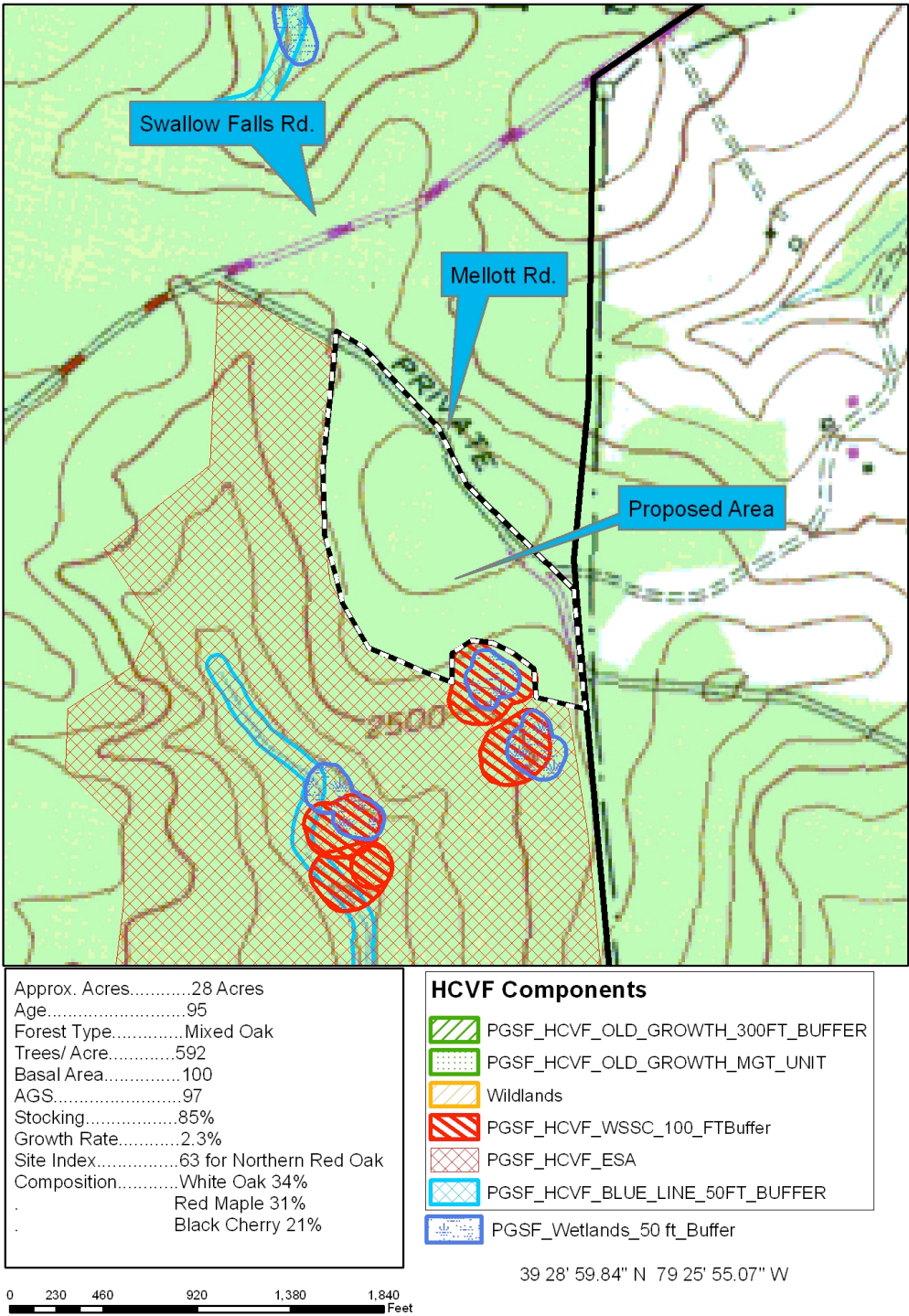
Underlying soils include: ‘Dekalb and Gilpin very stony loams’. These soils are well drained and very acidic. Stones, generally acid sandstones, more than 10 inches in diameter are abundant. Degree of slope ranges from 0-25% throughout the site. Equipment limits and erosion hazard are slight to moderate on steeper slopes. The site has fair-good productivity for woodland management, with site index 63 for Red Oak. This ridge top site has a south-western aspect and drains to the ESA and an un-named headwater tributary of Herrington Creek; part of the Youghiogeny River drainage system.

Management and Silvicultural Recommendations

The proposed silvicultural treatment for this stand is to regenerate the stand 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, islands 'varying' from 8-12 healthy, dominant or co-dominant trees and the associated understory, shall be retained for each 2 acres of this harvested area. Particular emphasis shall be placed on retaining groups of dominant and co-dominant oaks associated with live den trees or snags. All other trees greater than 2 inches DBH shall be cut. While a large portion of the stand contains what are problematic densities of fern and grass, these plants should not present a problem with the regeneration effort planned here, 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 on the forest floor 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.

Compartment 34 Stand 3 FY-14



Description

This area is located at south east corner of the intersection at Cranesville Road and the Snaggy Mountain Road, within Compartment #37 of the Garrett State Forest. In the FY-13 Annual Work Plan, a short section of a proposed multiple-use trail was planned to run through a portion of this stand. The stand was thinned in 1989 and consists of a 25 acre 117 year old, mature, transitioning mixed hardwood stand made up primarily of Red Maple (46%), and 37% mixed oak species including: Red Oak (15%), White Oak (13%), with Scarlet Oak, Black Oak, and Chestnut Oak making up an additional 9%, and Black Cherry making up another (9%) of the trees in the stand. This stand is fully stocked at 90% and contains 129 sq.ft. BA/acre.

The thinning work carried out in 1989, resulted in a well developed understory, of mixed hardwoods. However, the existing 19% stocked plots with competitive oak, and no other appreciable amount of new or established oak seedlings, indicates that stand density has grown beyond conditions suitable for retention and development an oak seedling component. At this time, established oak regeneration is insufficient to provide for the desired oak component in the future. Only 25% of the site contains sufficient desirable seedling or sapling stock capable of competing with the other established hardwoods and expected deer impacts, with 19 of the 25% being oak. 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 a significant factor affecting desired oak regeneration, with over 70% of the site harboring some form of plant competition that is interfering with acorn germination and seedling development. This plant interference is primarily in the form of mid canopy woody stems comprised primarily of Red Maple saplings and poles, along with abundant Black Birch seedlings and saplings which are found on 22% of the site. Problematic fern and grass densities are of some concern as they are found on 25% of the site and will need to be monitored for response to any silvicultural work. No non-native invasive species (NNIS) were observed in the stand inventory.

This ridge top site has both northwestern aspect and falls within the Toliver Run watershed; part of the Youghiogheny River drainage system. 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 good productivity for woodland management, with a site index of 60-70 for White oak.

Management and Silvicultural Recommendations

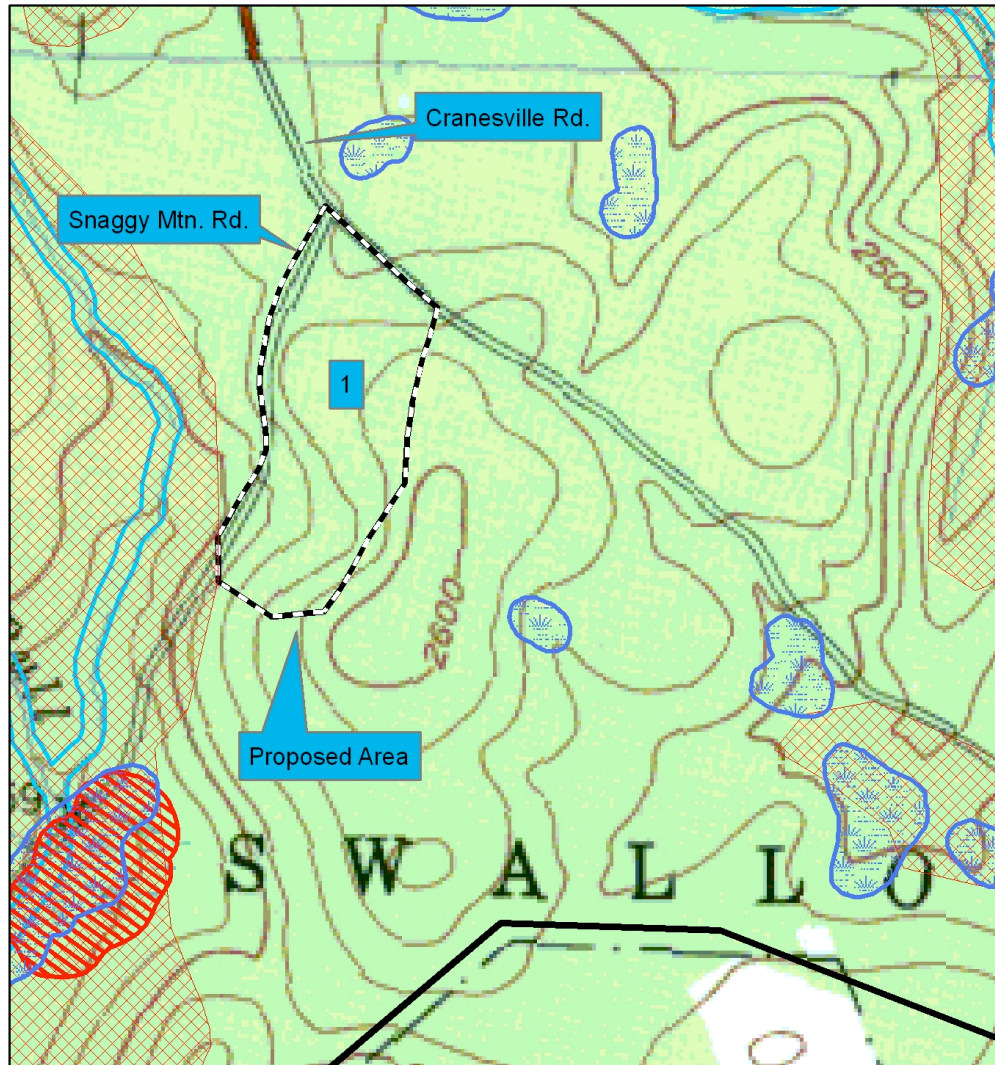
The planned silvicultural treatment for this site is to regenerate it using a 3 stage shelter-wood system. The first 'stage' of this regeneration system, will be a preparatory or conditioning practice that will involve a reduction in stocking, and control of the interfering understory, by thinning the stand to approximately 60-65% relative density. This thinning will involve a non-commercial "thinning from below" the main canopy. As this thinning from below will remove insufficient volume to support a commercial sale, the work will be expected to be carried out as a non-commercial practice. The trees to be removed from the growing stock in this thinning will be treated with an appropriate herbicide using a direct application to the target tree leaving the tree standing dead to slowly decay and fall to the forest floor. The treatment will allow defused sunlight to reach the forest floor providing optimal conditions for acorn germination and oak seedling establishment under conditions that are less favorable to other hardwoods. The trees removed in the practice will be left standing dead to slowly decay and fall to the forest floor. With the close proximity to roads, larger material may be sold and utilized as firewood.

Emphasis will be placed on the retention of acceptable growing stock, dominant and co-dominant oaks to serve as future seed source. Once sufficient oak regeneration is established, (approx. 5-10 years), the 'second stage' of this system may be employed, in which the first removal cut will commercially thin the over story allowing the established seedlings to develop into competitive large seedlings. As the oak seedlings pass into a competitive size class, the third stage of this system will be carried out as an overstory removal, or liberation cut. This final harvest will release or liberate the now competitive oak seedlings from overhead competition and fully regenerate the site.

The planned trail segment as mapped in the FY-13 AWP will be relocated within the stand. As initially laid out, the trail has been found to have areas inconsistent with International Mountain Biking Associations (IMBA) design standards for sustainable trails. The planned trail segment will be relocated to lessen future management conflicts and will be laid out using IMBA design standards as originally planned. The planned silvicultural work will be carried out across the stand as it will pose little to no conflicting use of the planned trail segment. For safety, maintenance and aesthetic consideration, trees to be removed within 50 feet of the trail, that are greater than 6 inches in diameter will be felled and the stumps treated to prevent sprouting.

The proposal at hand will best allow for the regeneration of this mature stand while retaining the significant and valuable, oak composition of the stand.

Compartment 37 Stand 1 FY-14



Approx Acres.....	25
Age.....	117
Forest Type.....	Northern Hardwood
Basal Area.....	128
AGS.....	113
Stocking.....	90%
Growth Rate.....	1.8%
Site Index.....	75 for Northern Red Oak
Composition.....	Red Maple 46%
	Northern Red Oak 15%
	White Oak 13%

HCVF Components	
	PGSF_HCVF_OLD_GROWTH_300FT_BUFFER
	PGSF_HCVF_OLD_GROWTH_MGT_UNIT
	Wildlands
	PGSF_HCVF_WSSC_100_FTBuffer
	PGSF_HCVF_ESA
	PGSF_HCVF_BLUE_LINE_50FT_BUFFER
	PGSF_Wetlands_50 ft_Buffer



39 29' 46.26" N 79 27' 12.27" W

Description:

This area is had been approved for the first stage of a 2 stage shelter-wood harvest in the FY-09 AWP. The area was later included in an Appalachian Oak Regeneration Workshop which included a number of non-commercial, intensive, forestry practices that better assure successful oak regeneration particularly on higher quality hardwood sites in the region. A number of small sample plots had been established for future use and observation. Information gathered as a result of the workshop indicated that the success of the planned 2 stage shelter-wood system could be improved upon by adding an additional operation, or stage, to the planned system. This third stage would include 'up-front' prep work that would make conditions more suitable for the development of a seedling oak component in this mixed hardwood stand, lessening the likelihood of a significant species shift away from the strong mixed oak component found here presently. As this is consistent with the management goal of retaining a strong oak component forest wide, the initial recommendation has been revised.

This area is located approx. 0.6 mile north of the intersection of Cranesville Road and Herrington Manor Road, within Compartment #39 of the Garrett State Forest. The stand fronts on the Cranesville Road and is bounded by the State Forests "5 ½ Mile Hiking Trail" on much of its perimeter. This site consists of a 80 acre mature mixed hardwood stand made up primarily of White Oak (35%), Red Maple (35%), Black Cherry (10%), Scarlet Oak (8%), and Red Oak (8%). This stand is over stocked at 112% and contains 139 sq.ft. BA/acre. At this time, established oak regeneration is insufficient to provide for the desired oak component in the future, with only 5% of the site containing sufficient seedling stock capable of competing with the other established hardwoods and expected deer impacts. 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 a significant factor affecting desired oak regeneration, with over 70% of the site harboring some form of plant competition that is interfering with acorn germination and seedling development. This plant interference is primarily in the form of mid canopy woody stems comprised primarily of Red Maple saplings and poles, along with Service berry (31%) and Birch (13%) seedlings and saplings. Problematic fern and grass densities are of little concern as they are found on less than 2% of the site. No non-native invasive species (NNIS) were observed in the stand inventory.

This ridge top site has both northeastern and southeastern aspects and falls within the Toliver Run watershed; part of the Youghiogheny River drainage system. Underlying soils include: 'DeKalb and Gilpin very stony loams' and 'Stony land'. 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 good productivity for woodland management, with a site index of 60-70 for White oak.

Management and Silvicultural Recommendations

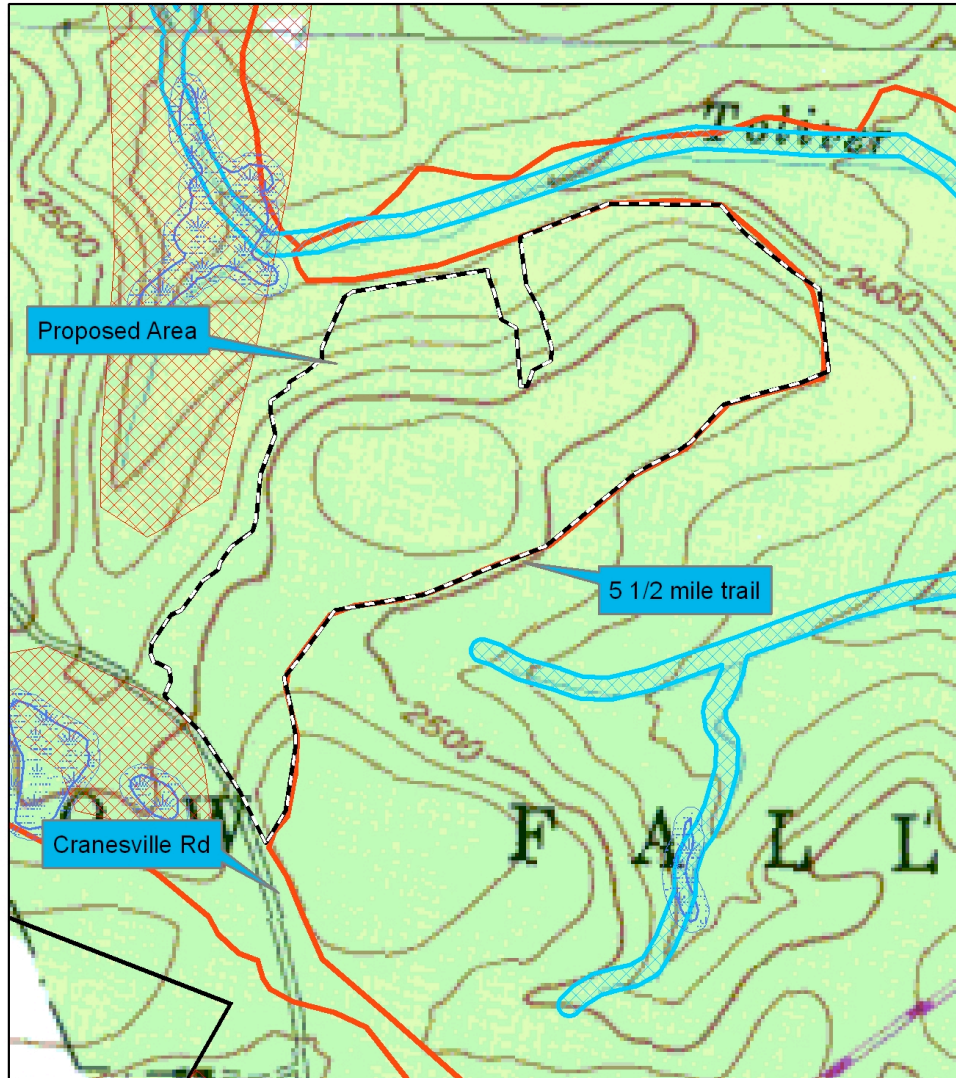
The planned silvicultural treatment for this site is to regenerate it using a 3-stage shelterwood system. The first 'stage' of this regeneration system, will be a preparatory or conditioning practice that will involve the initial planned reduction in stocking, thinning the stand to approximately 60-65% relative density. However, instead of opening up the main canopy above as previously planned with a commercial thinning, the thinning will involve a non-commercial "thinning from below" the main canopy. As this thinning from below, will remove insufficient volume to support a commercial sale, the work will be carried out as a non-commercial practice. The trees to be removed from the growing stock in this thinning will be treated with an appropriate herbicide using a direct application to the target tree leaving the tree standing dead to slowly decay and fall to the forest floor. The treatment will allow defused sunlight to reach the forest floor providing optimal conditions for acorn germination and oak seedling establishment under conditions that are less favorable to other hardwoods. The trees removed in the practice will be left standing dead to slowly decay and fall to the forest floor.

The initial proposal called for thinning the stand right to the trail edge. In keeping with this plan, the thinning from below/ herbicide treatments will be carried out to the hiking trails edge. However for safety, maintenance and aesthetic consideration, trees to be removed within 50 feet of the trail, that are greater than 6 inches in diameter will be felled and the stumps treated to prevent sprouting. The treatment will also be modified by retaining 100 ft. buffers around the established sample plots in order to allow them to continue to grow uninfluenced by the broader stand treatment for future reference.

Emphasis will be placed on the retention of acceptable growing stock, dominant and co-dominant oaks to serve as future seed source. Once sufficient oak regeneration is established, (approx. 5-10 years), the 'second stage' of this system may be employed, in which the first removal cut will commercially thin the overstory allowing the established seedlings to develop into competitive large seedlings. As the oak seedlings pass into a competitive size class, the third stage of this system will be carried out as an overstory removal, or liberation cut. This final harvest will release or liberate the now competitive oak seedlings from overhead competition and fully regenerate the site.



The initially planned commercial thinning would have resulted in a fully stocked stand. However, on this higher quality growing site, oak regeneration would have been out competed by other hardwoods, resulting in a significant shift in species composition, and ultimately a reduced oak component in final stand. The proposal at hand will better allow for the retention of the significant oak component in this stand.

Compartment 39 Stand 14 FY-14



Approx. Acres.....80
 Age.....98
 Forest Type..... Mixed Oak
 Trees/Acre.....459
 Basal Area.....175
 AGS.....160
 Stocking.....139%
 Growth Rate.....2.1%
 Site Index.....65 for WO
 Composition.....White Oak 42%
 Red Maple 29%
 Scarlet Oak 9%

HCVF Components

-  PGSF_HCVF_OLD_GROWTH_300FT_BUFFER
-  PGSF_HCVF_OLD_GROWTH_MGT_UNIT
-  Wildlands
-  PGSF_HCVF_WSSC_100_FTBuffer
-  PGSF_HCVF_ESA
-  PGSF_HCVF_BLUE_LINE_50FT_BUFFER
-  PGSF_Wetlands_50 ft_Buffer

0 200 400 800 1,200 1,600
 Feet

39 29' 34.83" N 79 26' 25.88" W



Description

This area is located on the south side of the Sang Run Cranesville Road, approx. 3/4 mile west of the intersection of Piney Mountain Road and Sang Run Cranesville Road, within Compartment #46 Stand 1 of the Garrett State Forest. The stand fronts along shared service road, with a mapped HCVF (High Conservation Value Forest) lying to the west of this access road. The HCVF area provides protection for a rare salamanders habitat, bob cat dens and coyotes. This forest stand had been thinned in 1993. This initial thinning has resulted in a moderately well established understory.

This 25-acre site contains an immature, 80 year old transitional mixed oak stand. The overstory is made up primarily of Red Maple (40%), Northern Red Oak (38%), Black Cherry (7%), and White Oak (6%). The stand is fully stocked at 80% relative density and contains 115 sq.ft. BA/acre. The understory is moderately developed, however at current deer densities, there is insufficient regeneration present to produce a fully stocked stand IF the retention of oak is a consideration. Only 13% of the stand contains well established oak regeneration. Another 17% of the site contains enough new oak seedlings to support management efforts toward promoting their full establishment to assure a minimum 30% stocking of oak seedlings for future stand development. Harvesting at this time will result in significant loss of the important oak component in this stand, and a shift toward a Red Maple stand with minimal oak.

Deer browse pressure in this area is estimated to be low based on present stand development. However deer impacts on manipulated stands at this location are expected to see more moderate impacts and must be addressed when considering regeneration efforts on this site.

Interfering plant competition is significant with 70% of the site harboring some form of plant competition; this being primarily tall woody interference in the form of the developed sapling/pole understory of Red Maple along with 9% of the site affected by Witch Hazel or Birch. Problematic densities of ferns occupy approx. 16% of the area. No non-native invasive species (NNIS) were observed in the stand inventory.

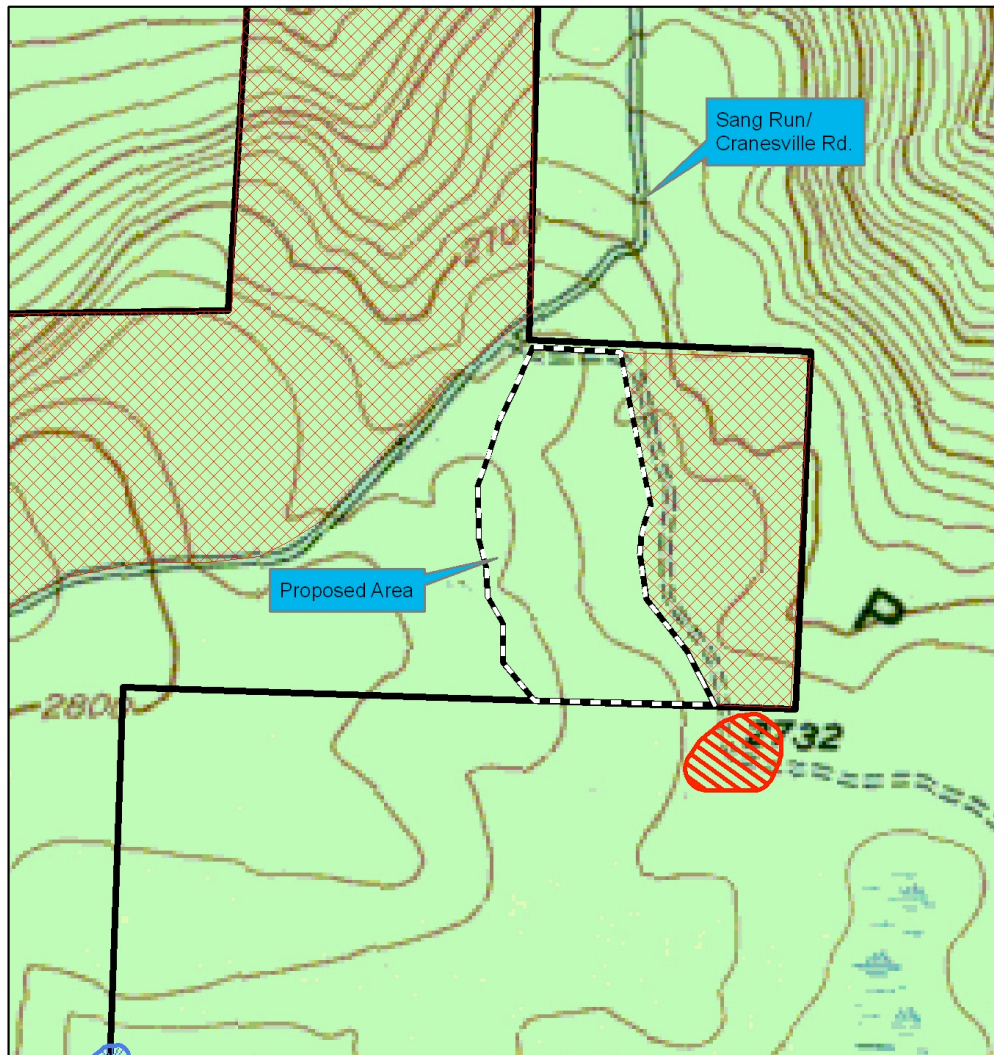
Underlying soils include: 'Dekalb and Letonia very stony sandy loams'. These soils are well drained and very acidic and do not retain moisture well. Stones, generally acid sandstones, more than 10 inches in diameter are abundant. Degree of slope ranges from 0-25% throughout the site. Equipment limits and erosion hazard are slight to moderate on steeper slopes. The site has fair-good productivity for woodland management, with site index 65 for Red Oak. This ridge top site has a north-eastern aspect and drains toward the HCVF and unnamed first order tributaries feeding the Youghiogeny River.

Management and Silvicultural Recommendations

The planned silvicultural treatment for this site is to regenerate it using a 2-stage shelter-wood system. The first 'stage' of this regeneration system, will be a "first removal cut". This will involve thinning the stand, reducing stocking to approximately 60-65% relative density. This thinning will remove insufficient volume to support a commercial sale. As such this work will be carried out as a non-commercial practice. The trees to be removed from the growing stock in this thinning will be treated with an appropriate herbicide using a combination of cut surface treatments applying the herbicide by either cut surface stump treatments or 'hack and squirt' method both of which involve direct application to the target tree leaving the tree standing dead to slowly decay and fall to the forest floor. As an alternative, this work may be completed using a combination of prescribed fire and herbicide treatments to control the interfering woody vegetation and reduce stocking to the desired levels. The objective of this project is to remove interfering woody vegetation to allow the existing, developing oak cohort sufficient sunlight to continue grow to a competitive size.


Emphasis will be placed on the retention of acceptable growing stock, dominant and co-dominant oaks to serve as future seed source. Once the existing oak cohort has reached competitive size and condition (approx. 5-10 years), the 'second stage' of this system may be carried out as an overstory removal, or liberation cut. This final harvest will release or liberate the now competitive oak seedlings from overhead competition and fully regenerate the site.

Compartment 46 Stand 1 FY-14



Approx. Acres25
 Age.....79
 Forest Type.....Northern Hardwood
 Trees/ Acre.....399
 Basal Area.....115.
 AGS.....103
 Stocking.....80
 Growth Rate.....3%
 Site Index.....65 for Northern Red Oak
 Composition.....Red Maple 40%
 Northern Red Oak 37.5%
 Black Cherry 7%

HCVF Components

-  PGSF_HCVF_OLD_GROWTH_300FT_BUFFER
-  PGSF_HCVF_OLD_GROWTH_MGT_UNIT
-  Wildlands
-  PGSF_HCVF_WSSC_100_FTBuffer
-  PGSF_HCVF_ESA
-  PGSF_HCVF_BLUE_LINE_50FT_BUFFER
-  PGSF_Wetlands_50 ft_Buffer

39 33' 15.67" N 79 26' 51.50" W



0 230 460 920 1,380 1,840 Feet

XI. Operational Management and Budget Summary

1. INTRODUCTION

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

The following information is a breakdown of Funding Sources and Operational costs associated with PGSF. These figures are only estimates that are based on projected revenues and operational expenses. Yearly changes in timber markets and weather conditions can severely affect revenues. Operational expenses will vary from year to year. The numbers below are based on the budget request submitted for FY-2013, as the FY-14 request has not been prepared at the time this document is being released for initial review.

2. PGSF FUNDING SOURCES: Estimated - \$566,430

- General Fund: \$273,436

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.

- Special Fund: \$193,494

The second source is the **Special Fund**. This is money generated from revenue. The State Forests generate revenue through the collection of service fees, as well as the sale of timber and forest products as detailed within the annual work plan and deposited in the Department of Natural Resources Forest or Park Reserve Fund. These funds must be appropriated by the General Assembly through the annual budgeting process before being spent. It is used in state forests to fund operational costs. The State Forest budget is prepared approximately one year before the beginning of the fiscal year in which it will be spent. The budget then goes through the legislative approval/review process along with all other State operating budgets. Once adopted, the budget goes into effect the first day of the fiscal year (July 1st). The Special Fund contribution of revenue generated by PGSF for FY-14 is expected to be \$70,000.

- ORV Fund: \$12,000

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. Note this figure is likely to be less for FY-14, as permit sales are significantly lower this year due to trail closures at both the Green Ridge and Savage River State Forests.

- 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:

Forest Inventory Grants: \$21,500

Grant monies secured for the completion of the forest inventory project.

National Recreational Trail Grant: \$30,000

These grants are competitive and are generally limited to \$30,000 per year per grant. The source of this funding is the Federal Department of Transportation administered through the Maryland Department of Transportation, State Highway Administration. These funds are designated reimbursable funds and are applied to various trail related projects as detailed in specific grant requests.

Other Grants: \$1,000,000 Capital improvement funds

In January of 2012, the Governor announced approximately \$23 million in the proposed capital budget for public land projects that will support nearly 300 jobs, help restore the environment, reduce energy usage, and improve services to visitors and citizens. Approximately \$1,000,000 of this will be directed to improving the public access and trail network on the Potomac and Garrett State Forests according to the plans outlined in the recreation section of this work plan.

RGS/ SCI Partnership

State Forest staff has regularly sought wildlife habitat improvement funds from various conservation organizations. For the past 3 years, the Ruffed Grouse Society together with Safari Club International have provided grants of \$1,000 -\$1,600 each year for specific habitat work. Grant requests will be submitted for FY-14 to assist in carrying out the wildlife habitat proposals seen within the AWP.

3. OPERATIONAL COST: Estimated Annual Expenses - \$566,430

Operational expenses are those costs paid directly out of the PGSF operational budget by the State Forest Manager and vary based on approval of operational budgets. The Forest Manager prepares a proposed operational budget for the forest based on instructions provided approximately one year in advance of the fiscal year. The FY-2012 budget proposal was prepared in July of 2011.

- Classified Salaries, Wages and Benefits: \$273,463

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

- Contractual Staffing: \$82,088 does not include Contractual Inventory Staff

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

- Special project staffing: \$21,500

This cost is associated with contractual personnel hired to carryout special forest inventory project, planned to be carried out over 5 year period. Project is in year 4 of 5 in 2014.

- Land Management and Operation Cost: \$210,906

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.

- County Payments: \$17,250

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

The FY-13 Work Plan calls for the harvest of approximately 300,000 Bd.ft. of hardwood saw timber; putting an estimated \$70,000 worth of raw wood products out into the local markets. With the repeated Gypsy Moth infestations and weather related damages to the state forests oak stands in the past decade, much of the silvicultural work laid out in this work plan is focused on initiating seedling development to better insure oak regeneration successes in future harvests. Much of the value of the harvests in the work plan will be directed back into the forest providing the essential investment in pre-harvest cultural work that will assure the long term sustainable management of these important forest resources.

- ORV Funds: \$12,000

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

4. SUMMARY

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

(Appendix 1)

**10 Year Timber Harvest Summary
for
Potomac-Garrett State Forest**

<i>Fiscal Year</i>	<i>Bd. Ft Volume Cut</i>	<i>Gross Value of sale</i>
2004	973,262	\$ 371,792
2005	925,113	\$ 394,092
2006	731,568	\$ 355,712
2007	487,027	\$ 288,133
2008	793,002	\$ 288,102
2009	251,990	\$ 29,578
2010	168,131	\$ 31,720
2011	465,653	\$ 155,900
2012	534,679	\$ 207,454
2013	331,052	\$ 139,300

(Appendix- 2)

Annual Work Plan Review Summary of Comments Potomac Garrett State Forest FY14 – AWP

The following is a summary of the comments and actions taken in response to the comments received through out the three-part review of the Potomac-Garrett State Forest FY-14 Annual Work Plan. Comments were received through DNR ID Team review, State Forest Advisory Committee review, and public review of the internet posted AWP. (See copies of all written comments attached.)

Comments regarding specific proposals as listed in table of contents:

IV. Special Projects – Forest Resource Management and Planning

- A. Certified Sustainable Management Plan Development
- B . ESA Management Plan Development
- C .Forest Stand Delineation and Inventory

ID Team Comments:

- No specific comments or concerns.

Advisory Board Comments:

- No specific comments or concerns.

Public Comments: Public Comments:

- Comments from RGS biologist supporting plans to develop ESA management plans to best care for these unique areas; no other specific comments or concerns; proposal accepted as written..
- Final Proposal : Proposal included as initially written.

V. Maintenance and Operations

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

ID Team Comments:

- No specific comments or concerns.

Advisory Board Comments:

- No specific comments or concerns.

Public Comments: Public Comments:

- No comments received.
- Final Proposals : Proposals included as initially written.

VI. Recreation Proposals

Potomac-Garrett State Forest Trail / Access Improvement Plan

ID Team Comments:

- No specific comments or concerns over the general concepts presented; as funding is awarded, ID team will be brought in for detailed 'project review' addressing specific resource issues as needed.

Advisory Board Comments:

- Advisory Board members expressed support for the general concepts and with particular interest in carrying out the Snaggy Mtn. Nested Loop Trail System on the Garrett State Forest as this has been a discussion item for past couple years; glad to see some movement toward carrying out and funding these plans to improve public recreational access.

Public Comments: Public Comments:

- Comments received in support of these improvements, and would like to see increased access for OHVs. (This request is being addressed more broadly on all DNR lands via an ORV Advisory Committee, working with MD DNRs Land Planning Unit, looking at OHV/ORV Trail development opportunities on all DNR lands.)

Final Proposal : Proposals included as initially written.

VII. Wildlife Habitat Improvement Proposals

Comp. 23/24 Wildlife Opening - proposal

ID Team Comments:

- No specific comments or concerns, Wildlife Division staff was involved in developing initial proposal.

Advisory Board Comments:

- No specific comments or concerns.

Public Comments: Public Comments:

- RGS Biologist suggests altering edge cut to allow a 'more natural' irregular edge with retention of mast producers around perimeter as well as providing travel routes through brush / cuttings; edits made to initial proposal to incorporate these comments into the plans for these sites.

Final Proposal : Proposal submitted including addition of public comments suggesting additional improvements to the practices proposed.

Comp. 32 Wildlife Opening - proposal

ID Team Comments:

- No specific comments or concerns.

Advisory Board Comments:

- No specific comments or concerns.

Public Comments: Public Comments:

- No comments received.
- Final Proposals : Proposals included as initially written.

Comp. 44 Wildlife Opening - proposal

ID Team Comments:

- No specific comments or concerns, Wildlife Division staff was involved in developing initial proposal.

Advisory Board Comments:

- No specific comments or concerns.

Public Comments: Public Comments:

- RGS Biologist suggests altering edge cut to allow a 'more natural' irregular edge with retention of mast producers around perimeter as well as providing travel routes through brush / cuttings; edits made to initial proposal to incorporate these comments into the plans for these sites.

Final Proposal : Proposal submitted including addition of public comments suggesting additional improvements to the practices proposed.

VIII. Watershed Protection

Comp. 19 – Lostland Run HWA Mitigation/Red Spruce Planting Proposal (extension previous years work)

ID Team Comments:

- No specific comments or concerns.

Advisory Board Comments:

- No specific comments or concerns.

Public Comments: Public Comments:

- Comment received regarding the objective of treating hardwood stumps to prevent sprouting being unclear. - Our objective is to increase light levels reaching the forest floor by removing certain hardwood competition there by allowing the other wise shade tolerant Red Spruce seedlings to become established in the under story of this fully stocked riparian area. Herbicide application to the cut surface of the removed hardwoods is desired to prolong the availability of increased light resulting from the initial removals. While consideration was given accounting for the likely deer browsing of the hardwood sprouts providing the same desired results, the risk of the deer being uncooperative on this small sample plot over rode that decision.

Final Proposal : Proposal submitted as initially written.

IX. Ecosystem Restoration / Protection Projects

Comps. 5&7 – Backbone Mtn. Japanese Knotweed Control (Continuation of previous years work.)

ID Team Comments:

- No specific comments or concerns.

Advisory Board Comments:

- No specific comments or concerns.

Public Comments: Public Comments:

- RGS Biologist acknowledges this as an ambitious undertaking and suggested additional control methods involving use of a displacing, desirable vegetative cover as a follow up to herbicide control work; a method proven successful in other areas. Will consider this in future Integrated Pest Management (IPM) approach to control NNIS.

Final Proposal : Proposal submitted as initially written.

Comps. 21-26 – Wallman/Laurel Run Garlic Mustard Control (Continuation of previous years work.)

ID Team Comments:

- No specific comments or concerns.

Advisory Board Comments:

- No specific comments or concerns.

Public Comments: Public Comments:

- RGS Biologist acknowledges this as an ambitious undertaking and offered additional control methods involving use of a displacing, desirable vegetative cover as a follow up to herbicide control work; a method proven successful in other areas against other NNIS. Will consider this in our IPM approach to control NNIS.

Final Proposal : Proposal submitted as initially written.

X. Silvicultural Proposals

Comp. 12 -Stand 6 Non – Commercial TSI / CTR Proposal

ID Team Comments:

- No specific comments or concerns.

Advisory Board Comments:

- No specific comments or concerns.

Public Comments: Public Comments:

- No comments received.

Final Proposal : Proposal submitted as initially written.

Comp. 16– Stand 2 Regeneration Harvest Proposal

ID Team Comments:

- No specific comments or concerns.

Advisory Board Comments:

- No specific comments or concerns.

Public Comments: Public Comments:

- Acknowledging not knowing the percentage of advanced oak regen present on the site, RGS Biologist expressed concern over overstory removal with any presence of spreading fern or grasses. - Stand inventories indicate that there is sufficient desirable regeneration present (including 39% stocked with oak) to result in fully stocked stand despite the slight (11%) presence of these problematic plants.

Final Proposal : Proposal submitted as initially written.

Comp. 26– Stand 6 Non-Commercial Conditioning Proposal

ID Team Comments:

- No specific comments or concerns.

Advisory Board Comments:

- No specific comments or concerns.

Public Comments: Public Comments:

- No comments received.

Final Proposal : Proposal submitted as initially written.

Comp. 32– Stand 30,29,25 Non-Commercial TSI/ CTR Proposal

ID Team Comments:

- No specific comments or concerns.

Advisory Board Comments:

- No specific comments or concerns.

Public Comments: Public Comments:

- No comments received.

Final Proposals : Proposal submitted as initially written.

Comp. 34- Stand 3 Regeneration Harvest Proposal

ID Team Comments:

- No specific comments or concerns.

Advisory Board Comments:

- No specific comments or concerns.

Public Comments: Public Comments:

- No comments received.

Final Proposals : Proposal submitted as initially written.

Comp. 37- Stand 1 Non-Commercial Conditioning Proposal

ID Team Comments:

- No specific comments or concerns.

Advisory Board Comments:

- No specific comments or concerns.

Public Comments: Public Comments:

- No comments received.

Comp. 39 -Stand 14 Non-Commercial Conditioning Proposal

ID Team Comments:

- No specific comments or concerns.

Advisory Board Comments:

- No specific comments or concerns.

Public Comments: Public Comments:

- No comments received.

Comp. 46- Stand 1 Non-Commercial Conditioning Proposal

ID Team Comments:

- No specific comments or concerns.

Advisory Board Comments:

- No specific comments or concerns.

Public Comments: Public Comments:

- No comments received.

(End – written comments attached.)



Potomac Garrett State Forest

ID Team Annual Work Plan FY 2014

August 16, 2011

Attendance: John Denning, Noah Rawe, Eric Null (Parks), Dave Marple (NRP), Pete Hartman (MDE), Bob Webster, Jack Perdue, Rick Latshaw (W&HS - Wildlife), Ed Thompson (W&HS - Natural Heritage), Alan Klotz (Fisheries), John Wilson (LAP), Steve Carr (LAP).

Stop #1 Cranesville & Herrington Manor Rd Comp 39 Stand 14

This was a revisit to the previously approved FY-11 AWP proposal. Having looked closer at the regeneration issues affecting the stand, it was determined that a revised prescription would better assure successful regeneration of oak with modifications to initial approved shelter wood proposal.

Stop #2 Mallott Rd Comp 34 Stand 3

This area was thinned in 1995 and has gotten good regeneration with oak. Working to get back an oak forest. Good acorn crop within the window of the last harvest has resulted in a good mixed-oak forest. It will take some work to get to keep it from converting to red maple. Some discussion but the prescription was accepted as proposed.

Stop #3 Maple Glade Rd.

This was not a FY14 proposal but a harvest site revisit. This harvest site was buffered and protected RTE species of dragonfly. The fenced in area (22 ac of 18 ac harvest) here is demonstrating excellent regeneration, with four year old growth.

* This would make a good site for future ID Team visit and an Internal Silvicultural Audit.

Stop #4 Snaggy Mountain

This proposal is for regeneration harvest using the shelterwood preparation cut to get oak established in the understory. Currently is mainly red maple. A local group is proposing to establish a new mountain bike trail near here but is believed it will not be sustainable according to IMBA standards.

At this location was a discussion about nearby mountain bike trails. Last year the Team reviewed a proposal for a mountain bike trail. Part of the trail that was proposed by a local user-group. After gaining more knowledge of IMBA standards, the trail that was laid by a local group did not meet IMBA sustainable standards. So, the trail will be moved to incorporate IMBA standards.

Stop #5 Wilderness Ranch

This was a recent acquisition, about 800 acres. This area contains a rattlesnake den and is the headwaters for Bull Glade. It's a Special Management Area for water shrew, which is a state endangered species. This proposal is to gate the fire Tower Road to block the entrance to the rattlesnake den area. Some snakes were found killed at this site recently. The state forest staff

will wait until current investigation is complete before proceeding with any work here. It was suggested that it not be opened until mid to late October. It also is a difficult road to maintain.

Stop #6 Crop Tree Release Comp 32 Stands 30, 29, 25

This proposal is a timber stand improvement using a crop tree release technique. Favored species such as oak and cherry will maintained as possible. There is not much commercial wood to be removed but may work for a firewood sale. No other discussion and otherwise approved by the Team as proposed.

The other proposals within the annual work plan were not visited since there were no resource issues for discussion and therefore approved to move forward.

Potomac Garrett State Forest
FY 2014 Annual Work Plan
Public Comments

2013-03-22

Sent: Friday, February 15, 2013 11:03 AM
Subject: State Forest Work Plans

Thank you for the opportunity to review the draft work plans for Maryland's state forests. We have reviewed them as posted on the DNR web site at:
<http://dnr.md.gov/forests/workplans/index.asp>

We support the DNR's adoption of standards reflecting the FSC and SFI Forest Certification programs. It is wise to manage these publicly owned forests under sustainability principles as described in those programs. This will bring benefits to the health of Maryland's lands and waters and also qualify the forest products for sale under the FSC and SFI certifications.

We applaud DNR's care in reviewing potential offroad vehicle (ORV) routes very cautiously. That is the best way to avoid further degradation of state forest lands and deter ORVs from trespassing on adjoining lands under other ownerships. The DNR Offroad Vehicle Report dated February 2011 showed widespread damage on state lands from unmanaged ORV usage. The state forests should not encourage abusive ORV riding like that described in the 2011 report.

There is one serious ORV problem in the work plans – a proposed ORV route in the Savage River work plan at page 4. We are not aware of any public review of this proposal. After the public review of the 2011 report, I (George) spoke on March 7, 2012, with Paul Peditto, of DNR. He told me there would be public review and comment before any new ORV routes would be opened on state lands. We are not aware of any such review on the ORV route mentioned in the Savage River work plan. No new ORV routes should be built or opened in the state forests until a thorough public review and comment period has been held at the statewide level. Please notify us if any such comment period is held.

Our comments on specific work plans follow.

Green Ridge State Forest

Pp. 7-8. We support the rehabilitation of East Valley Road by reconstructing the surface and installing drainage features to eliminate excessive erosion from the road surface and safely divert road runoff before it enters the streams. We agree that this road should remain closed to ORVs. Only passenger vehicles licensed for highway travel should be allowed.

Pp. 19-20. Town Hill potential ORV route. We note that DNR's interdisciplinary team concluded that this 6-mile route would be unsustainable. We support that conclusion. No such route should be considered further. However, if the Town Hill route continues to be considered, DNR should conduct a statewide public review and comment on the proposal before any more time or money is devoted to it.

Savage River State Forest

P. 4. A new ORV route is mentioned, to be installed in FY 2014. DNR should hold statewide public review and comment on this route before any further work is done, meeting the commitment made by Paul Peditto in 2012.

Pp. 52-53. The description of the field visit reveals several serious problems with the St. Johns Rock proposed ORV trail. Those problems found by the CAC are a good example of the impacts that can result from an unsustainable ORV trail. One of the problems is trespass onto adjoining private lands. We urge DNR to abandon this proposed ORV route. If it is to be considered further, a statewide public review and comment period should be provided, so all stakeholders can take a look at the project.

Chesapeake and Potomac State Forests

We heartily support two projects described in the work plan:

(P. 84 ff.) Algonquin Cross County Trail: a non-motorized trail 13 miles long, which will be the longest forested trail system on the Eastern Shore and Delmarva Peninsula. The trail will foster recreational use in Chesapeake SF, Pocomoke SF, and Pocomoke River State Park. The project consists of adding 2.3 miles of trail to existing trails now totaling 11.5 miles.

(P. 89 ff.) Mattaponi Landing Soft Launch: a 1/3 mile dirt and gravel road to provide river access for canoe and kayak users to Maryland's first Wild & Scenic River. This access will enable paddlers to go north to Shad Landing State Park or south to Milburn Landing State Park. I (George) canoed on the Pocomoke many years ago and remember it as an excellent way to enjoy the area and see wildlife close up.

Please keep us informed of any further action on these work plans. We can be reached at the email address below.

George & Frances A

Sent: Friday, February 15, 2013 4:00 AM

Subject: DNR Welcomes Public Input On State Forest Annual Work Plans

Motocross riders account for hundreds if not thousands of active off-road motorcyclists who have very few places to ride on private land, and NONE on Public land. There is really no reason that this should be the case as they contributed to the Fund. Our stakeholders have been

looked over for 40 years, and while the state has benefitted from us, we haven't benefitted from the State.

While Rules and Regulations have been written around our activity since the motocross boom of the '70s, they have only succeeded in limiting us, and not allowing us to reap the benefits of Liberty that many other user groups have had such as equestrians, mountain bikers, or even model airplane flyers! We are a unique user group that gets combined with trail riders, unartfully.

I have identified a gap in Maryland law that seeks to regulate all ORV activity but does not apply to our form of recreation. Our sport is motocross, involving the racing of highly tuned motorcycles not at all like the trail bikes envisioned by the ORV legislation that defines an ORV as a cross-country vehicle with a headlight and taillight. We ride on closed courses.

The reason for my letter is to have Motocross Race Bike "use" be made exempt from existing laws. Exempting this special class of "vehicle" is possible with the authority of the Secretary of the DNR. I will attempt to make an argument for this special exception by demonstrating how our chosen sport uses a "vehicle" in a way not anticipated by current ORV law.

Motocross bikes are used in the sport of motocross, on private land, either in competition or for recreational purposes on land used for training for the sport. These are not cross-country trail bikes used for travel; they do not have headlights or license plates, or green DNR stickers, or mufflers of the kind one would expect a trail bike to be equipped with. They shouldn't be considered vehicles.

Additionally, there are no Public "designated lands" for our use. We would like to be welcome on State DNR land, on Public Land! Our motocross tracks take up only about 30-40 acres. Ample parking is a major factor in those 40 available acres because motocross events are so well attended. Governor O'Malley, John F. Wilson and Paul Peditto know about our needs.

Our case is made in the attached file addressed to Secretary John Griffin. It looks at existing wording of law and specifically shows how it is inappropriately applied to our "Use". We are requesting a special exception to allow the use called "motocross" on Unclassified or Undesignated land, along with the exemption from being required to display a green sticker.

The Motocross Council is actively working to provide riders with private facilities to ride motocross, however being incorporated into the general "Trails" discussion is incongruous without discussion of our needs. Our chosen sport is not, nor does it appear that it ever will be, an accepted "Use" for planning authorities who cite noise, soil disturbance, and high speed as reasons to forbid our activity.

Working with the ORV Stakeholders Workgroup has shown promise in gaining ground (figuratively and literally), but we need a special exception to create community motocross parks on land remnants, in every county, where our stakeholders can have the recreation and the practice that is required to succeed in this challenging pursuit. We want an exemption from the sticker requirements mostly.

And finally, we want to be afforded the same opportunities horse riders have when accessing Public Land. Out of 1000 miles of DNR trails in Maryland, there are none for motocross. A motocross loop is only 1-1/2 miles, and only needs about 30-40 acres to accomplish that. We don't need hundreds of acres. We need meaningful support by the DNR to access our Public Lands.

As you contemplate miles of recreational trails on Public land or through the use of Public Private Partnerships, please remember that our sport has contributed to the technology, Moto culture, bicycle culture, Olympic culture (BMX), the economy, and the sports and entertainment industry all through private land use. Don't you think it is time to get back to the simple "lot on the corner"? Public Land?

Wind O

Sent: Thursday, February 14, 2013 1:44 PM
Subject: Re: Public Comments for State Forest Annual Work Plans

First of all I want to thank the DNR and you for giving us, the Public, the opportunity to review and comment on the Work Plans. This was my first experience participating in the endeavor. With that said, I apologize up front if I missed the mark and/or offend anyone with my comments. That was/is not my intention. All the Forest Managers and their staffs did a phenomenal job building their plans. I have consolidated my comments in the attached Word document. I tried to keep it short and to the point and hope you do have the time to review it. Please let me know if you cannot open the attachment and I will get the info to you another way. Again, thank you for this opportunity.

I. Potomac/Garrett State Forest

- a. Pages 14 – 18 – Trail Systems. This is great how P-GSF is improving these roads/trails. However, I would like to see more opportunities for all ORVs.
- b. Plan does not contain IFC or CAC reports/comments.

Sent: Tuesday, February 12, 2013 1:44 PM
Subject: Public comment on the proposed 2014 fiscal year work plan

As a resident of Maryland that enjoys off-roading I would like to say that I am in favor of working with unimproved roads left from timber and mining operations and I would like to see more access available to OHV users in Maryland.

David F

Sent: Tuesday, February 05, 2013 10:42 PM
Subject: Potomac State Forest Annual Work Plan

The Middle Atlantic Four Wheel Drive Association members have enjoyed an outstanding relationship with the management and staff of the Potomac State Forest for decades. This state forest is the quiet gem of the Maryland public lands system. The Laurel Run/Wallman Area has been a personal favorite since the late 1960's. My family takes it's annual vacation on this state forest, nearly every year.

The four wheel drive group will go up during the driest month(s) of the year and camp at the group site. The group will do some sort of trails related volunteer work in exchange for some carefully planned access on some unique established routes, that very often date back to the C.C.C.s. This is very popular with everyone that make the trip.

Our group would appreciate any year round access on some primitive challenging routes. From what we have seen, the Backbone Mountain area would probably be the most suitable area for that. Just a thought. A limited use connector route from the Laurel Run Road to Lost Lands would be an outstanding four wheel drive route. Still, we understand the challenges with private land owners and resource management.

Special organized, carefully planned, guided events maybe a way to offer up some unique experiences for the ATV group. Just a suggestion.

Here too, establishing a designated primitive trail for the horse back trailing riding folks would be support by MAFWDA. Establishing a campsite for the horse back folks/trailer is a thought.

MAFWDA applauds the excellent efforts by the management and staff of the Potomac State on the efforts put forth on Timber and Wildlife management. We absolutely support the proposed timber projects.

Establish some "safe" on foot access to the Potomac River for fishing would be a real plus. We have avoided summer access to some great fishing hole due to the potential to having a close encounter with a rattlesnake in the high weeds. Again, just a thought.

By far, the Potomac State Forest is the Stevens family's favorite place to visit, camp and enjoy. Please keep up the great work there.

Preston S

RE: Potomac-Garrett State Forest Annual Work Plan 2014 FY

The Ruffed Grouse Society (RGS) is appreciative of the opportunity to provide comments on this Annual Work Plan for FY 2014. The RGS commends the Potomac-Garrett State Forest

personnel for continuing the SFI and FSC certification process for sustainable forest management and quality certified wood products entering local markets

RGS commends the responsible forest stewardship being employed through the recognition of culturing seedlings within less desirable stocked stands to provide future stands beneficial as both wildlife habitat and timber resources throughout stand maturation.

Using cut-back edges within the 'wildlife openings' management areas is very productive in sunlight penetration and will provide an adequate transition edge for escape cover. Another rule of thumb to follow in determining which trees to fell is not just limiting to the 1 chain width, but all trees whose tops would enter the opening if felled would be evaluated for cutting. This provides a more natural uneven border. Criteria can be established as the leave trees based on species composition and wildlife objectives and should result in no more than 1 -2 trees per 100ft. Care should be taken in piling those cut around the border to not establish a barrier. Providing small travel lanes into the openings would prove more beneficial to multiple wildlife species.

The forward thinking of creative forest management within ESA units to maintain the integrity of the current habitat conditions is very dynamic. Recognizing that many of these specialized habitats are considered ephemeral in nature, and that a hands off prescription may not provide the desired conditions set forth for these areas.

Within the management recommendation for Compartment 19, the treating of all hardwood stumps to prevent stump sprouting is not clear in the objectives for this area. If you are attempting to provide a uniform conifer stand I can see the possible use of stump treating (especially if red maple). I would suggest revisiting this scheme as stump sprouts can provide deer an alternative of browse.

Your plan for invasive plant species is extremely ambitious and definitely time consuming. Perhaps establishing enough shade cover from plantings would be an appropriate second step within the areas previously treated for Knotweed. I have seen this successfully done in KY where these areas were planted with alder. Site moisture may not be approved for alder but perhaps another shrub species can be substituted.

In Compartment 16 Stand 2 I caution the opening of the overstory with any presence of spreading fern and grass species. Not having the percent stocking of advanced oak regeneration available the question of resilience of the oak to competition even if mechanically removed lingers. Consider the use of prescribed fire if the oak is of a large enough component and meet the root collar criteria.

As a general suggestion to address the low regeneration and moderate deer impact I would like to propose a pre-fencing treatment in establishing adequate regeneration. These treatments have been successful in the Allegheny National Forest when deer densities were high. I also caution the management of listed stands that contain a rather high level of fern and grass without any glyphosate treatment. The shade and growing space this type of interference produces, greatly inhibits any woody stem regeneration.

It is my opinion this work plan is very ambitious and demonstrates the degree of forest management required to provide a continued resource to local markets while considering the multiple users of the land.

Please contact me if RGS can be of any assistance in moving forward with this plan.

Linda O

Hello John

Sorry for not getting back in touch with you faster. I have reviewed the plans and as i represent the hunters for the Potomac Garrett State Forest. I agree with the plans.

Thanks Carl Lee

John,

After reviewing the contents of the referenced plan, I have no fisheries related concerns and indeed am glad to hear that work is planned on some roadways which should result in less sediment being deposited in some of the forest's brook trout streams.

Sull McCartney