POTOMAC-GARRETT STATE FOREST
ANNUAL WORK PLAN

FISCAL YEAR 2023

The mark of responsible forestry

SFI-00050

Prepared: _____ _____
(Forest Manager) Date

Reviewed: _____ _____
(Regional Forester) Date

Approved: _____ _____
(Environmental Specialist) Date

Potomac-Garrett State Forest
FY-23
Annual Work Plan

Potomac-Garrett State Forest
FY-23 Annual Work Plan

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I. State Forest Overview

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

Potomac-Garrett State Forest has been intensively managed over the past nine decades. Forest harvest and grooming operations are undertaken to thin overstocked stands, to effectively deal with public safety concerns, to harvest mature, diseased/dying trees, to improve habitat for certain wildlife species, to assist and provide for certain research needs, to address aesthetic concerns and to increase the proportion of age/height diversity of forested stands.

II. Annual Work Plan Summary

The FY-23 Annual Work Plan for Potomac-Garrett State Forest was formulated in 2021. It contains projects to be undertaken in the areas of Special Projects, Maintenance and Operations, Recreation, Watershed Protection, Ecosystem Restoration / Protection, and Wildlife Management. In addition to the routine operations and management of the State Forest, the FY-23 Annual Work Plan for Potomac-Garrett State Forest details four land management projects that will be the focus of the State Forest management staff for FY-23. All projects and proposals within this Plan have been developed to meet one or more of the Land Management Guidelines and Objectives outlined in the Potomac-Garrett State Forest Sustainable Management Plan including:

***Forest Economy**: management activities intended to maintain an economically sustainable forest and contribute to the local economy through providing forest-related employment and products.*

***Forest Conservation**: management activities with a purpose to protect significant or unique natural communities and elements of biological diversity, including Ecologically Significant Areas, High Conservation Value Forests and old growth Forests. Old growth forest management serves to restore and/or enhance old growth forest structure and function.*

***Water Quality**: management activities designed to protect or improve ecological functions in protecting or enhancing water quality.*

Wildlife Habitat*: management activities with a purpose to maintain and enhance the ecological needs of the diversity of wildlife species and habitat types.*

Recreation and Cultural Heritage*: management activities with a purpose to maintain and enhance areas that serve as visual, public camping, designated trails, and other high public use areas.*

A. Special Management Projects Include:

1. Continued Development of the Certified, State Forest Sustainable Forest Management Plan - with special focus on addressing items identified as in need of improvement resulting from the 2021 FSC/SFI Certification Audits.

2. Forest Stand Delineation, Inventory and Monitoring - Completion of the project to re-inventory and redefine stands on the entire forest. This critical project will continue in FY-23. To date, 100% of the forest wide data collection has been completed. The project will allow a thorough analysis of this complete data set from which further management plans will be derived. Inventory work will continue in the form of follow-up monitoring protocols associated with the initial inventory and certification requirements.

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

4. Ecologically Significant Area (ESA) Management Plan Development - Wildlife and Heritage staff continue to develop descriptions and management plans for the ESA areas to be included in the Potomac-Garrett State Forest Sustainable Forest Management Plan guidance document. These plans offer a look at the critical habitat elements that make up each of the designated Ecologically Sensitive Areas, and offer insights on management approaches that will assure continued protection of critical habitats, including some of the active management that has taken place to further assure protection of the rare, threatened and endangered species these areas are set up to protect.

B. Land Management Projects Include:

1. Continuation of the ecosystem restoration project involving control of invasive and exotic plants forest wide. A 31-acre NNIS control project in Compartments 30 and 32 will focus herbicide treatments on Japanese barberry (*Berberis thunbergii*) and multi-flora rose (*Rosa multiflora*) followed by annual monitoring and retreatment when necessary.

2. 3 Silvicultural projects including:
2 white oak timber stand improvement projects on 54 acres.
1 11-acre red spruce release.

Forest harvest operations are undertaken to utilize mature and dead/dying/diseased trees; to thin overstocked stands; to improve and diversify wildlife habitat; to effectively correct public safety concerns and issues; to reduce the forests vulnerability to insect attack, disease or wildfire hazard; to facilitate certain approved research needs; to improve certain aesthetic aspects of an area; and to improve the proportions of age class and species diversity within stands and management blocks. This forest has been intensively managed since its inception, 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-23 Annual Work Plan outlines 4 non-commercial silvicultural projects on 96 acres. The silvicultural work laid out in this work plan is focused on non-native invasive species control, initiating seedling development, retaining established regeneration, particularly white oak, and conserving a dwindling population of the once prominent red spruce on the forest landscape. This cultural work that will safeguard the long-term sustainable management of these important forest resources. The cultural operations and management projects outlined within the FY-23 Annual Work Plan are selected to provide significant contributions to the sustainability of forest resources found within Potomac-Garrett State Forest and the ecosystems associated with it.

No additional commercial harvests have been included in the FY-23 Annual Work Plan due to the volume harvested in FY-22 in a follow-up regeneration harvest as outlined and approved in the FY-14 Annual Work Plan. Sufficient regeneration, particularly of mixed oak species, has progressed from the established cohort into the competitive size class following the first stage of the regeneration system initiated in FY-14. This final harvest will release the competitive oak seedlings, allowing them to fully occupy the site and establish the future stand. Approved harvest proposals from the FY-22 Annual Work Plan will be carried over into FY-23, consisting of three harvests on 97 acres, producing a harvest of approximately 520,000 board feet of sawtimber accounting for an estimated $125,000 worth of raw wood products entering local markets.

III. General Location Map for FY-23 Land Management Project Proposals

Approximately 96 Acres

Map Key

1. Compartment 30,32 Multiple Stands	*31-Acre Non-Native Invasive Species Control*
2. Compartment 36 Stands 1,5	*34-Acre Non-Commercial White Oak Timber Stand Improvement*
3. Compartment 43 Stand 2	*20-Acre Non-Commercial White Oak Timber Stand Improvement*
4. Compartment 46 Stand 11	*11-Acre Red Spruce Release*

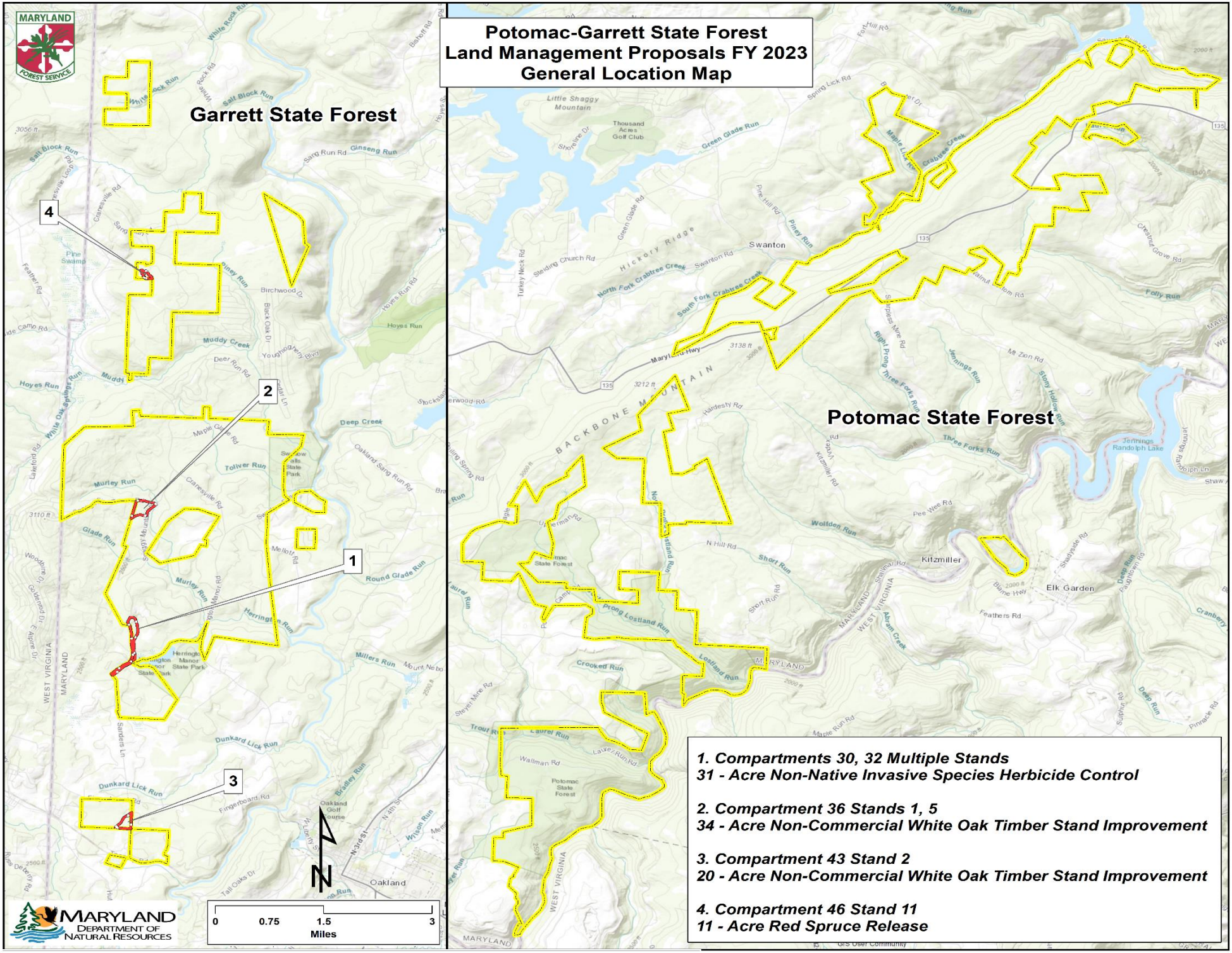


Figure 1. General location map for FY-23 land management proposals.

IV. Special Projects - Forest Resource Management and Planning

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

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

Throughout the course of the next two years, broad resource assessments were carried out identifying the various management units and features located on the forests including identification and mapping of High Conservation Value Forest Areas (HCVF), much of which was formerly identified as the State Forests "Special Management Zone". Within the HCVF are located a broad range of Ecologically Significant Areas (ESA). These areas typically contain rare, threatened or endangered species and their critical habitats. 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 had been completed on all three of the western state forests. Following the audits, draft plans and audit findings were presented to the State Forests Citizen Advisory Committees for review and comments. The Draft Sustainable Management Plans were made available for public comment fall of 2011. Revisions and updates to the Sustainable Management Plan were completed in April of 2019.

Each year the State Forests Management Program is audited for compliance to the standards set forth by the Certifying Organizations. Any shortcomings in the programs identified during the audits are identified in Corrective Action Reports (CARs) and/or observations identified as needing 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 these items be addressed before the next annual audit, with some needing more immediate attention. A minor CAR was issued by both SFI and FSC in regard to leaking equipment on a harvest site and the apparent absence of safety equipment. A corrective action plan was formulated that would add the items to the BMP checklist and confirmation of compliance would be done during each site visit by Forest Service Staff or agents. A second minor CAR was issued by FSC focused on pesticide reporting for utility right of way herbicide spraying. (See Appendix 4 and Appendix 5 for a summary of audit findings). State Forest staff time and field operations are adjusted and redirected to assist in addressing any Corrective Action items in the course of the next year.

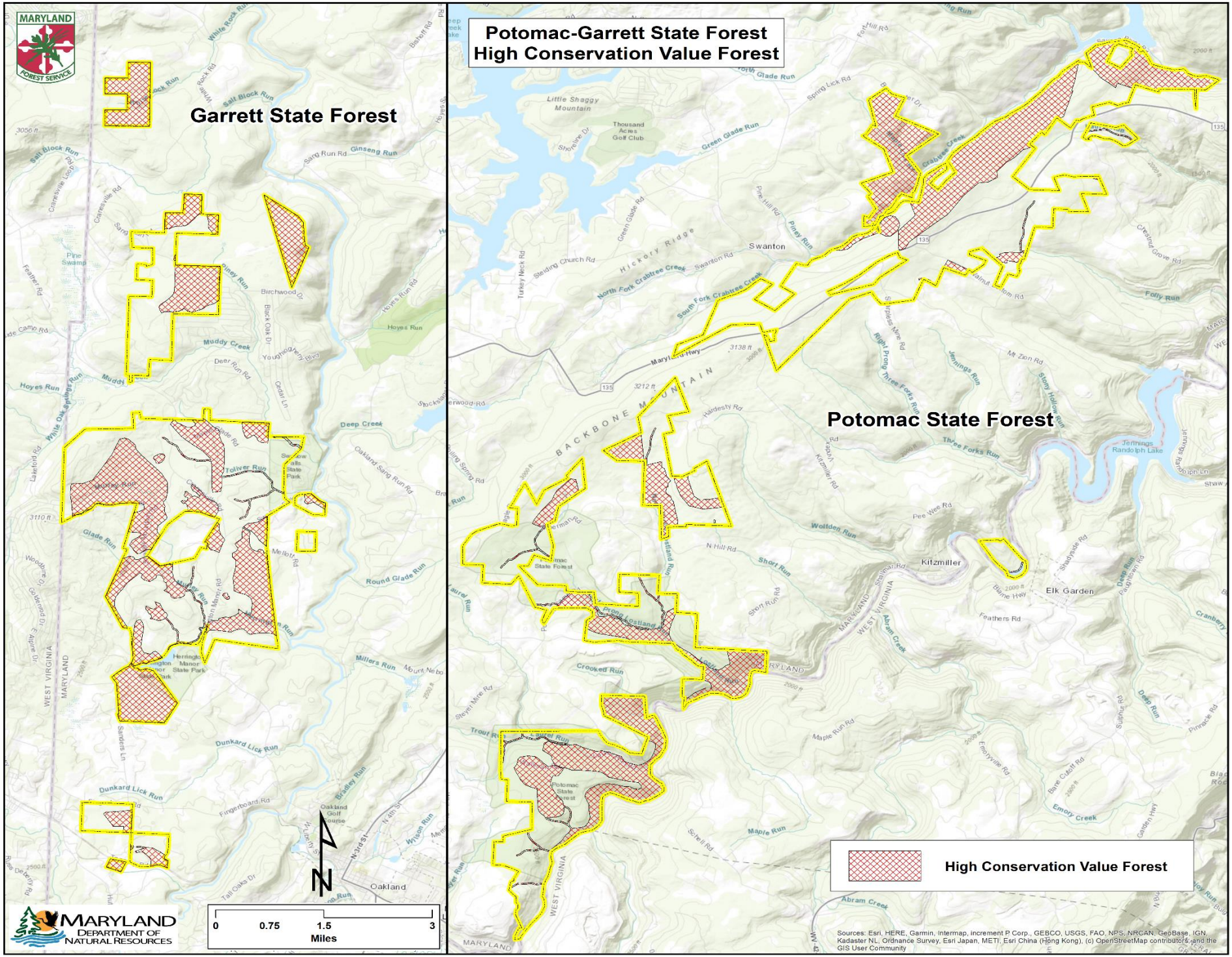


Figure 2. Designated High Conservation Value Forest

B. Forest Stand Delineation, Inventory and Monitoring

A critical part of developing long term sustainable management plans is the availability of up-to-date forest inventory data. Initial stand data collection has been completed on the harvestable areas of the forest using the SILVAH Inventory System developed by the US Forest Service which incorporates intense surveys of both the overstory and understory to assist in the formulation of appropriate silvicultural prescriptions in specific forest types. The demand for this important data set is increasingly evident as special projects evolving out of demands placed by Forest Certification Standards utilize this data set for project planning including the Annual Work Plan and the Non-Native Invasive Species Inventory. With the close of the fifth inventory season in 2016, the initial forest wide data collection has been completed on this stage of the forest monitoring program and processing of this data has been completed.

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

V. Maintenance and Operations

Aside from the detailed cultural work planned for the State Forests, the following is a partial list of projects that are often on-going from year to year and are an integral part of State Forest operations: Routine maintenance projects include building repair and maintenance, vehicle maintenance, mowing at the office facility, snow removal, repair and replacement of fire rings and tables at the camp sites, brush hogging trails and repair of road surfaces.

A. Maintenance and Management of Roads and Trails

There are approximately 79.2 miles of trail and hardened road surface on the forest and approximately 1/3 of the mileage is maintained each year. Maintenance in these areas includes brush hogging, mowing, and rehabilitation of road surfaces. Herbicide usage has been integrated into the road maintenance regime in order to control growth in areas where mechanical control methods are not feasible (i.e. steep slopes, narrow paths, rocky areas). The use of herbicide along forest roadways can also reduce operational costs for the maintenance staff by controlling unwanted vegetation along these travel corridors for several years, when applied properly.

In FY-21 maintenance staff will concentrate on carrying out planned trail maintenance as outlined in the National Recreation Trail Grant (NRT) detailed in the Recreation Section of this plan. This will be carried out in addition to basic maintenance on the segments of multiple-use

and motorized-use trails that have been rehabilitated using National Recreation Trail Grants over the past 5 years, along with routine maintenance of the roads and trails as outlined in the road maintenance plan.

As a result of the State Forests Certification Audit, State Forest staff has developed a formalized transportation plan in which the entire transportation infrastructure has been inventoried and assessed for management, use and maintenance needs. From this assessment, the State Forest staff develops annual maintenance plans geared toward making the roads and trails system sustainable. Information gathered for this plan is presently being used to prioritize improvements to be made with the access trails grant referenced above, NRT Grant funds, Critical Maintenance Projects, etc. As work is contracted out, plans will be updated with regard to needs. All 79.2 miles of roads and trails have been classified based on desired use and condition. A detailed breakdown of the road management classification is available upon request at the Potomac-Garrett State Forest Headquarters.

B. Boundary Line Maintenance

Potomac-Garrett State Forest currently 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, State Forest staff maintain approximately 30 miles of line each year. In addition to routine marking and 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. With the assistance of Land Planning and Acquisition staff, all previously unpainted and/or missing boundary lines are to be reestablished until the entire forest boundary is demarcated.

C. Campground Operation and Maintenance

Potomac-Garrett State Forest offers year round, primitive camping in five separate areas of the State Forest; Lostland Run, Laurel Run/Wallman, Snaggy Mountain and Piney Mountain. Within each area is a group site, a rustic trail shelter and several primitive campsites offering a picnic table, lantern post and fire ring. Vault toilets have been 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.

Major campsite maintenance coincides with major holidays, the end of winter and at the traditional end of the camping season in late summer/early fall. The campsites are also frequented during the white-tailed deer firearms seasons in the fall and winter, during spring turkey season in early spring and during the opening weekend of trout season in late winter/early spring. 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; and site impact monitoring.

D. 3-D Archery Range Maintenance and Management

Potomac-Garrett State Forest offers the only 3-D Archery Range in Maryland's Public Lands System. 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.

The archery range, located behind the state forest headquarters, is open daily from April through mid-September from dawn to dusk and offers a 30-target course, with four separate skill levels at each target. Rules and regulations are posted at the range. Cost per round is $7.00 for adults, $5.00 for ages 12-16 and free for children under 11. An unlimited season pass can also be purchased for $35.00 per 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 located off Fingerboard Road in Compartments 43 and 44. Primary audiences have included leaders in the fields of agricultural and natural resources, extension service personnel, forestry board members, 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 sustainably managing forests.

VI. Recreation

A. **Recreation Opportunities** (See Figures 3-5 pp. 13-15)

1. Hiking and Biking Trails

Potomac-Garrett State Forest has over 80 miles of trails open to hikers, mountain bikers and horseback riders of any ability. Not all trails are open to all recreational pursuits and it is recommended that before engaging in any activities patrons should visit or contact the state forest headquarters to become aware of any trail restrictions. A backpacking permit must be obtained at the forest headquarters or at any of the self-registration areas for overnight hiking trips. Trail guides featuring a topographic map and trail descriptions can be purchased at the forest headquarters.

2. Off Road Vehicles

A variety of off road vehicle types are permitted on trail sections that are blazed green. These areas include Snaggy Mountain Road, Burkholder Road, Piney Mountain Road, Laurel Run Road* and Wallman Road. Riders should consult ORV maps and regulations for each state forest. Riders are required to obtain an annual registration and current Department of Natural Resources ORV permit, available online at www.dnr.maryland.gov. *Laurel Run Road remains closed due to unsafe conditions following the collapse of the roadbed.

3. Hunting

Hunting is permitted throughout the forest except where posted with safety zone signs. The nearly 19,000 acres of Potomac-Garrett State Forest includes two state park areas (Herrington Manor and Swallow Falls) where hunting is prohibited. The forest boundaries are marked with yellow paint on trees - a yellow bar as you enter the forest and a yellow dot as you exit the forest. Hunting on or crossing private land within or near the state forest requires the written permission of the landowner. Parking is permitted along roadways providing traffic is not blocked. Hunters must have a valid Maryland hunting license and should refer to the current Maryland Guide to Hunting & Trapping for season dates and specific regulations.

Several access roads are opened every fall to accommodate hunters. These gated roads are opened prior to squirrel season in September and remain open through January 31. Opened roads can be used by all hunters and allow for vehicular traffic. Due to the nature of these roads, the use of four-wheel drive is recommended. Disabled hunter access roads are also available. Brochures are available with more details concerning the disabled hunter accessible roads and their locations.

Hunter Safety Classes, required for the purchase of a license, are taught periodically through the Department of Natural Resources. These classes are usually offered in the county at one of the local State Parks.

4. Trapping

Trapping is permitted both on land and in the water. A permit can be issued for trapping on Potomac-Garrett State Forest at the Regional DNR Wildlife Office in Flintstone. Trappers are required to obtain a certificate of trapper education from the Department of Natural Resources. Trapper education courses are held statewide. Refer to the current Hunting & Trapping Guide for complete regulations. A valid hunting license is required when applying for a trapping permit.

5. Fishing

Anglers with a Freshwater Fishing License have the opportunity to catch multiple species of fish in the Potomac River including smallmouth bass, rock bass and several trout species. As part of the DNR trout management program, early spring through fall stocking provides excellent fishing. A variety of opportunities for wild brook trout and stocked brown and rainbow trout exist in other designated areas, including Lostland Run and Laurel Run. When fishing, be prepared to negotiate strong currents, large boulders and fallen trees in the water. Fishing is also available at the nearby Jennings Randolph Lake, which is downstream on the Potomac River. A boat ramp is located on the Maryland side accessible from Mt. Zion Road off MD Route 135. For regulations, creel limits and special management areas consult the Maryland Freshwater Sportfishing Guide or contact the Western Maryland Fisheries Office at (301) 334-8218.

6. Winter Recreation

Cross-country skiers and snowshoers of all abilities can enjoy a winter wonderland across Potomac-Garrett State Forest. The red and blue trails on the South Snaggy Complex are recommended for a backcountry snowshoe experience. Snowshoers must be careful to walk beside and not on cross-country tracks as it disrupts them.

7. Geocaching

Currently, 14 goecaches are located throughout Potomac-Garrett State Forest for those interested in testing their navigational and tracking skills. All geocaches must be reviewed and approved by the staff before being placed anywhere on the forest. Applications and general rules for geocache placement are available at the state forest headquarters. The list of geocaches can be found online at: www.geocaching.com by searching "Find Caches Near Me" and entering zip code 21550.

8. Maps

Brochures and maps are available at the Potomac-Garrett State Forest Headquarters Office located at 1431 Potomac Camp Road, Oakland, Maryland 21550.

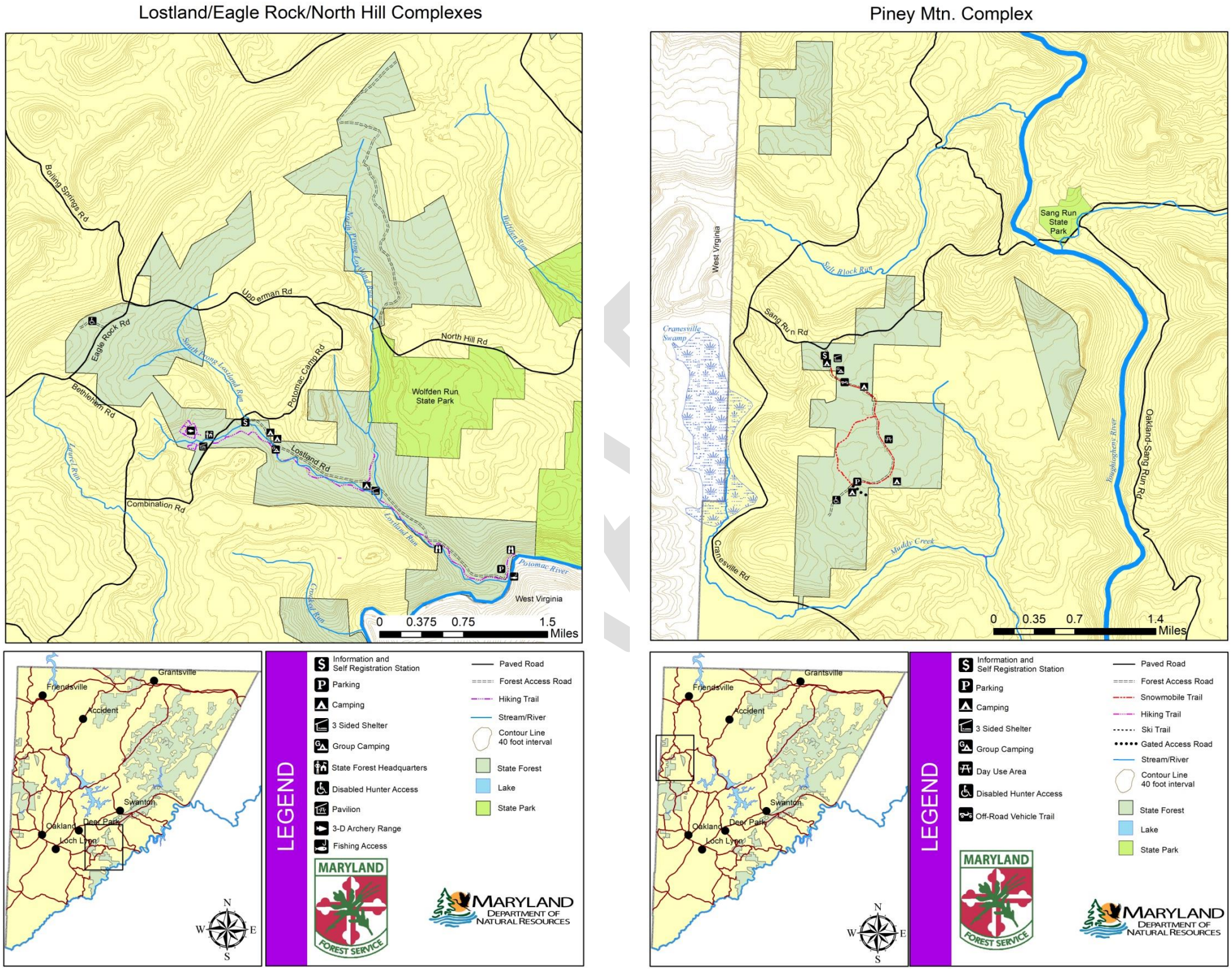


Figure 3. Recreational opportunities on Potomac-Garrett State Forest

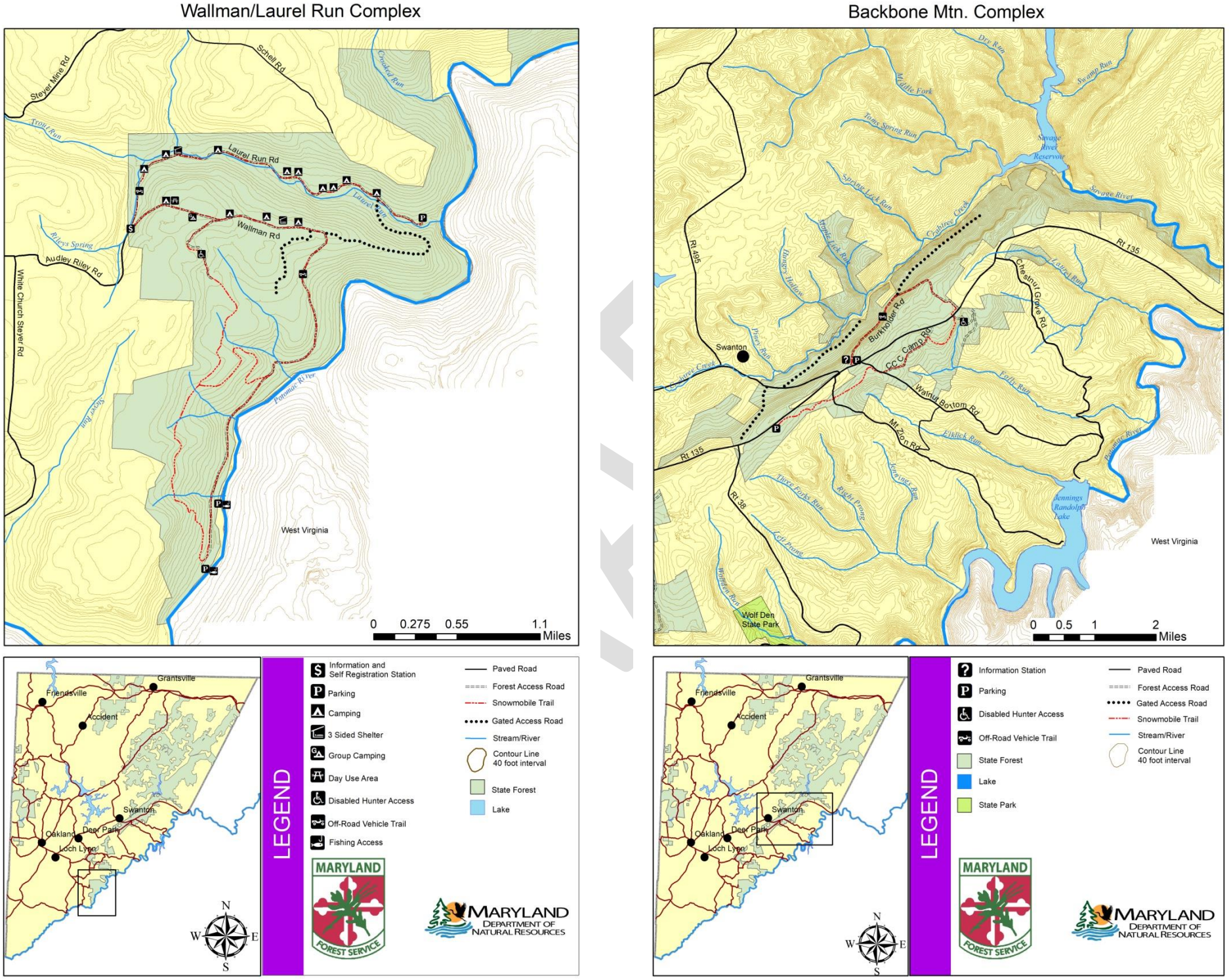


Figure 4. Recreational opportunities on Potomac-Garrett State Forest (cont)

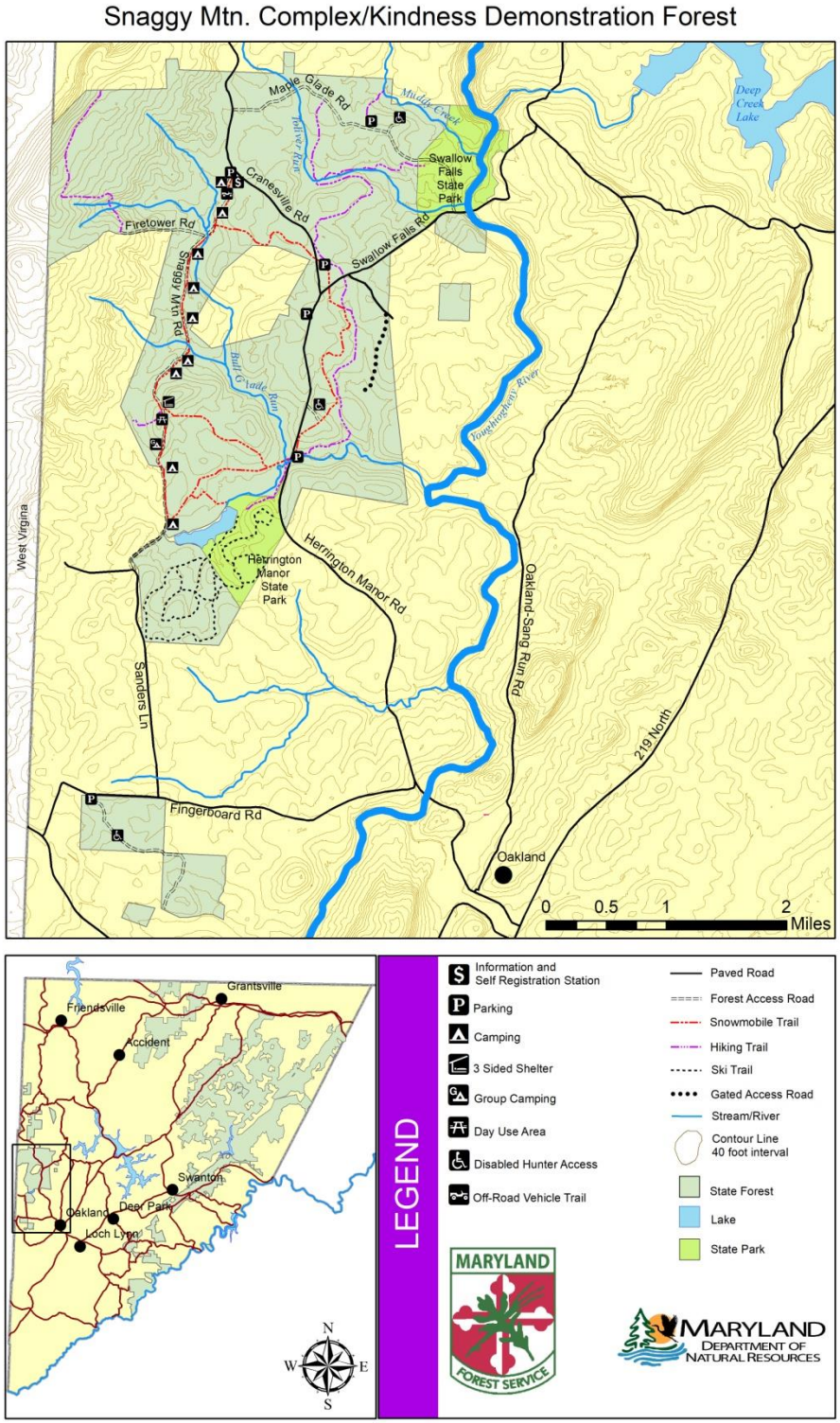


Figure 5. Recreational opportunities on Potomac-Garrett State Forest (continued)

B. Recreation Proposals

I. In the 2018 Legislative Session, SB 606 was passed, which established an Off-Highway Recreational Vehicle Fund that uses the excise titling tax on OHV purchases for the purpose of funding maintenance and construction of ORV trails on DNR owned lands. The Department receives monthly deposits that are split between the Forest Service and Park Service and the Comptroller is required to distribute 50% in FY-21 and FY-22 and each year thereafter. Potomac-Garrett State Forest requested funding provided by the OHV excise tax in FY-22 that is currently being used for enhancements to various ORV trails on the forest including Snaggy Mountain Road and Wallman/Loop Road to restore the roadbed and proper water drainage as well as for the purchase of trail building equipment.

Operating the ORV trails will require regular maintenance and upkeep. The excise tax funding will fund five elements of trail upkeep including:

1) Maintenance of water control devices.
2) Resurfacing/top dressing roadway.
3) Clean up of litter and debris.
4) Providing protection to environmentally sensitive areas adjacent to the trail.
5) Maintaining closure of existing illegal trails and deterring new trails from being developed.

II. Critical Maintenance Funding

The Engineering and Construction Unit is responsible for the design and construction of capital improvements and critical and house maintenance projects at all Department of Natural Resources' facilities. Working with the diverse groups within the department, Engineering and Construction designs and constructs new facilities and helps maintain existing ones. Projects are completed for Department of Natural Resources Parks, Forests, Wildlife, Fisheries and Natural Resources Police. Project locations are on department property located in every county of the state. Typical critical maintenance projects include paving, roofing, window and door replacement, painting, plumbing, electric, HVAC, well/septic, storage tanks and demolition. New construction includes bathhouses, multipurpose buildings, bridges, and new access roads. Each project is tailored to the needs of the facility. To accomplish this, the Department of Natural Resources Engineering and Construction bids out numerous maintenance and construction projects every year. Potomac-Garrett State Forest has requested the following projects to be undertaken by the Engineering and Construction Department:

Laurel Run Road Rehabilitation, Wallman Road Culvert Replacement / Resurfacing, Lostland Run Road Bridge Repair, Snaggy Mountain Road Bridge Replacement: Estimated cost: $2.8 million.

Figure 6. Critical Maintenance Projects. Clockwise from top left: Laurel Run Road, Wallman Road Culvert, Snaggy Mountain Road Bridge, Lostland Run Road Bridge.

III. National Recreational Trail Grant Requests

Potomac-Garrett State Forest has submitted 1 National Recreation Trails Grant Request to fund enhancements to recreation trails on the forests.

1. Burkholder Road ORV Trail Resurfacing and Culvert Replacement - $156,176.40 ($124,720.90 requested grant funds + $31,455.50 matching funds).

This project will involve restoration and maintenance of the 2.7-mile trail bed surface and all associated drainage features to include grading and reshaping crown of the trail bed, opening all ditches and water diversions, replacing all metal culvert pipes with HDPE culverts, hardening the road surface with compacted stone with the goal of restoring proper water drainage off and away from the trail bed.

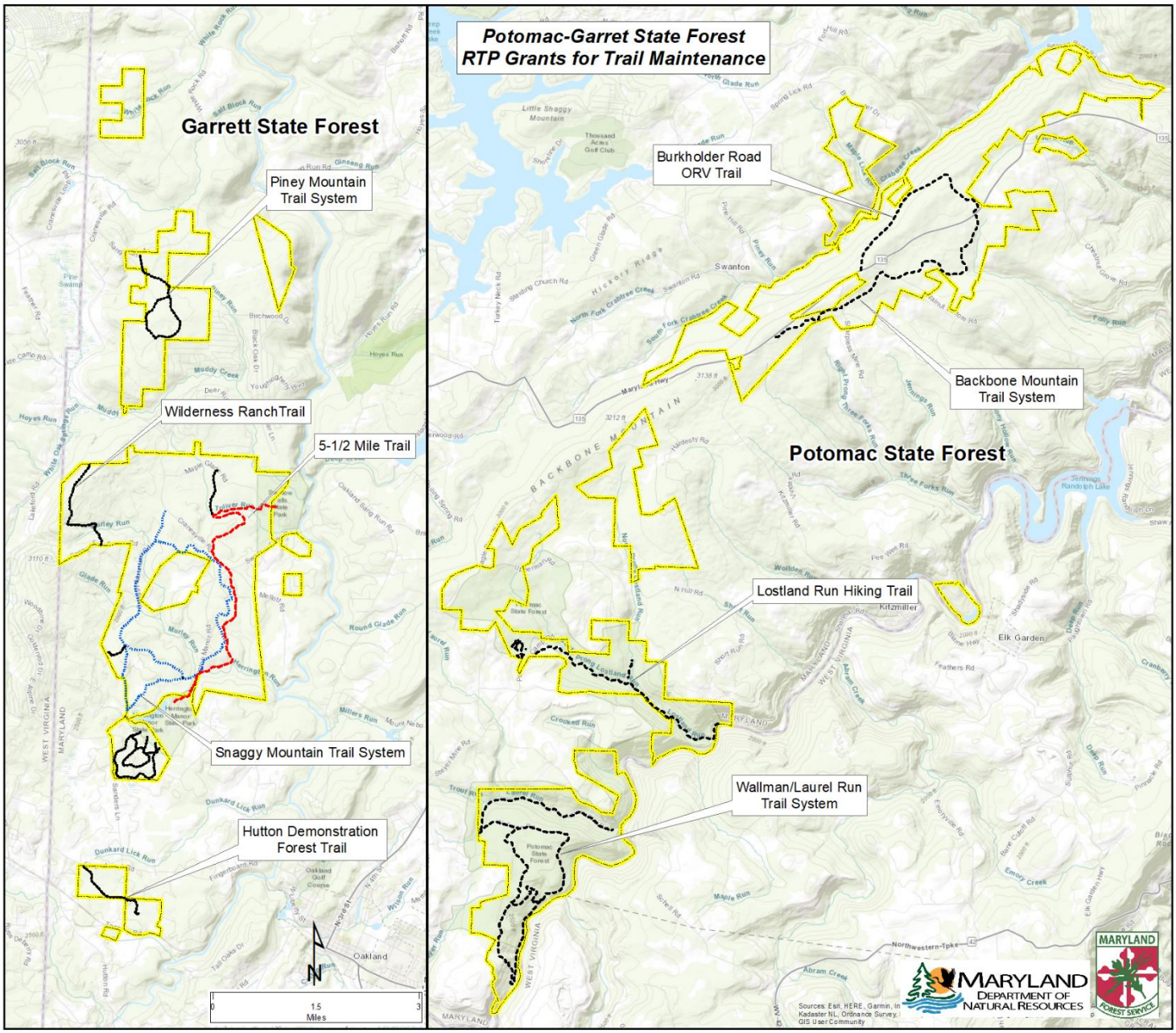


Figure 7. Potomac-Garrett State Forest Rec Trail Grant Maintenance

The following Recreational Trail Grants projects were postponed in FY-22 due to the Coronavirus pandemic and will be implemented in FY-23:

2. Snaggy Mountain Snowmobile Trail Rehabilitation - $118,750.00
($95,000 requested grant funds + $23,750.00 matching funds)

This project will rehabilitate approximately 6 miles of the Snaggy Mountain Snowmobile Trail. Work will include treadway improvements to manage storm runoff and the replacement of three bridges. The work will be confined to the existing corridor and no new trail is proposed.

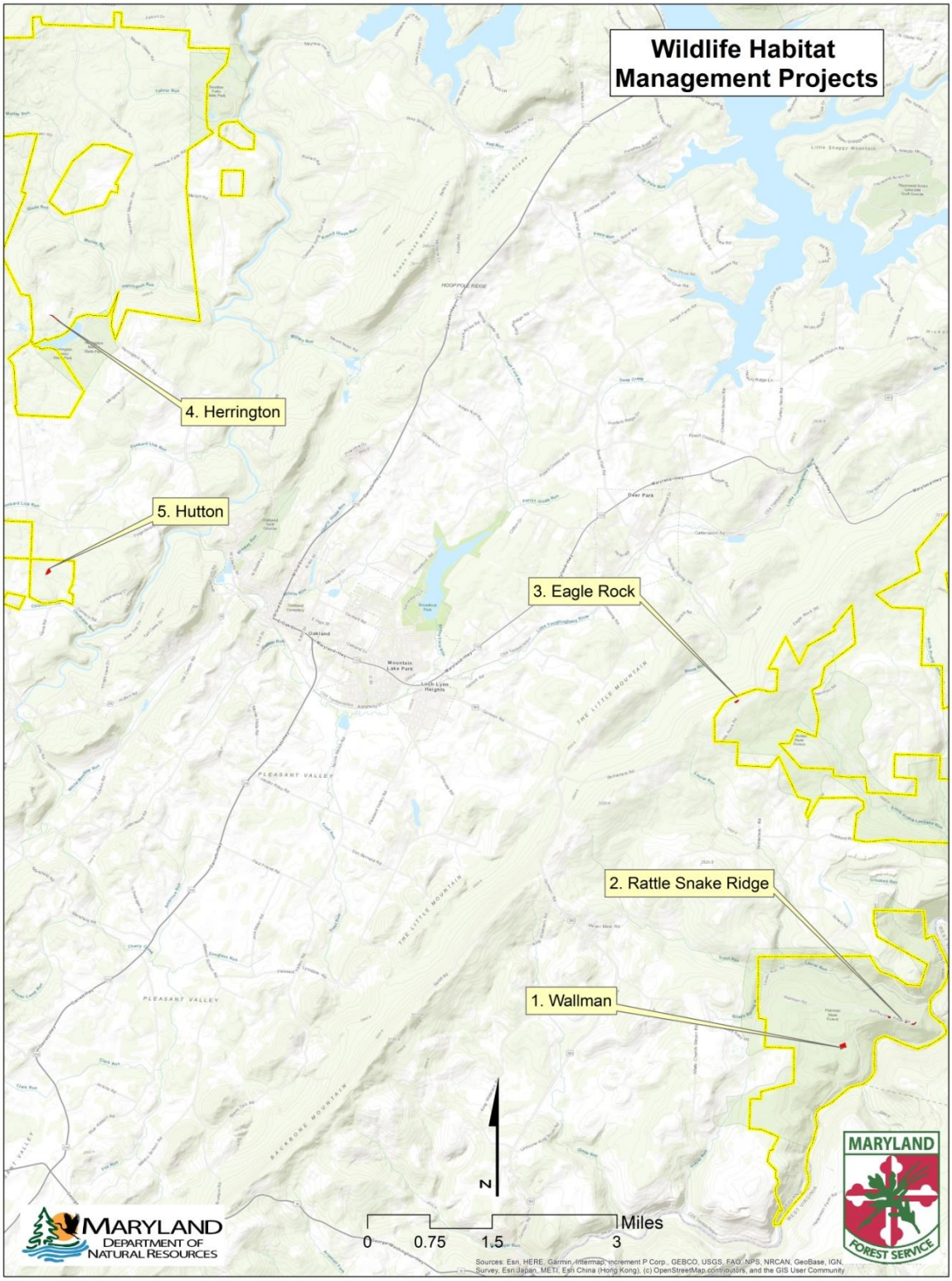
3. 5 ½ Mile Trail Rehabilitation - $175,000.00
($218,750.00 requested grant funds + 43,750.00 matching funds)

This project will rehabilitate the 5 ½ Mile Trail linking Herrington Manor State Park and Swallow Falls State Park through Garrett State Forest. Work will include treadway improvements to manage storm runoff and the replacement of seven bridges. Work will be confined to the existing corridor and no new trail is proposed.

VII. Wildlife Habitat Management Projects

A. General Wildlife Habitat Maintenance

Approximately 7.6 acres of wildlife specific projects have been implemented throughout the state forest. These projects are located in the Wallman, Rattle Snake Ridge, Eagle Rock, Herrington Manor and Hutton areas. General practices include liming and fertilizing as well as planting of cover and grain crops, where appropriate. Plantings focused on over seeding with clover (See Wildlife Habitat Management Projects map and summary, p. 18).



Area	*Species Planted*	*Acres*	*Fertilizer*
1. Wallman	*Clover mix*	*2.6*	*1200 lbs 10-20-20*
2. Rattle Snake Ridge	*Clover mix*	*1.1*	*500 lbs 10-20-20*
3. Eagle Rock	*Clover mix*	*.70*	*300 lbs 10-20-20*
4. Herrington	*Clover mix*	*1.4*	*4000 lbs lime*
5. Hutton	*Clover mix*	*1.8*	*500 lbs 10-20-20* *4000 lbs lime*

Figure 8. Potomac-Garrett State Forest Wildlife Habitat Management Projects

VIII. Ecosystem Restoration / Protection Projects

A. Non-Native Invasive Species (NNIS) Control

Across the State, a biological invasion of non-native and invasive plants is spreading into fields, forests, wetlands and waterways. Referred to in a variety of ways including exotic, non-native, alien or non-indigenous, invasive plants impact native plant and animal communities by displacing native vegetation and disrupting habitats as they become established and spread over time. Early Detection and Rapid Response (EDRR) to control the spread of problematic species is important for the conservation of native flora and fauna. Control efforts often require considerable resources including labor, time and money.

As in many cases, the introduction of these widespread and invasive plants cannot be prevented. It is important to evaluate and plan control efforts in order that such efforts contribute meaningfully to the success of forest conservation plans. EDRR efforts targeting NNIS discovered during the forest wide inventory have been successful in identifying and controlling a number of NNIS populations. A species-specific management plan has been developed for Japanese knotweed (See Appendix 2).

The State Forest staff has treated and/or is monitoring 35 plant colonies or sites including: 18 tree-of-heaven sites, 12 Japanese knotweed sites, 1 mile-a-minute weed site, 2 Japanese barberry sites, 1 Oriental bittersweet site and 1 Japanese spirea site (See corresponding map for locations). Three species of most concern are:

1. Tree-of-Heaven (*Ailanthus altissima*) Individual stems of the exotic invasive tree-of-heaven have been identified across large areas of the forest. Control measures including both mechanical and chemical have been implemented to remove this species from the limited areas in which it is present. These plant colonies are now part of our long term monitoring program, with follow-up treatments planned as necessary in the interest of preventing these species from establishing themselves in the otherwise natural forest communities in which they were found.

2. Japanese knotweed (*Fallopia japonica*). Several areas of Potomac-Garrett State Forest have become infested with the invasive plant Japanese knotweed. Twelve treatment areas have been delineated and will be treated and monitored to determine the most effective course of action for suppressing and ultimately eradicating the plant from these areas of the forest. As more effective treatment methods become available for large areas, this area will be reevaluated in regard to implementing a control plan.

Treatments in all areas of the forest involve a two-step process that includes both mechanical and chemical means of control. First, the knotweed is cut and allowed to grow back for 8 weeks, reaching only 2 to 4 feet in height. Second, the new growth is treated with a 2% solution of glyphosate as the active ingredient. Treatment of these areas has been repeated on a yearly basis and will continue until the plant has been eradicated from the target areas.

3. Mile-a-Minute Weed (*Persicaria perfoliata*). Several patches of mile-a-minute weed, another aggressive non-native invasive, have been discovered throughout the forest. Monitoring of the areas will continue and the sites will be treated as necessary and where feasible to eradicate this plant from the site and prevent it from spreading into the adjacent forest.

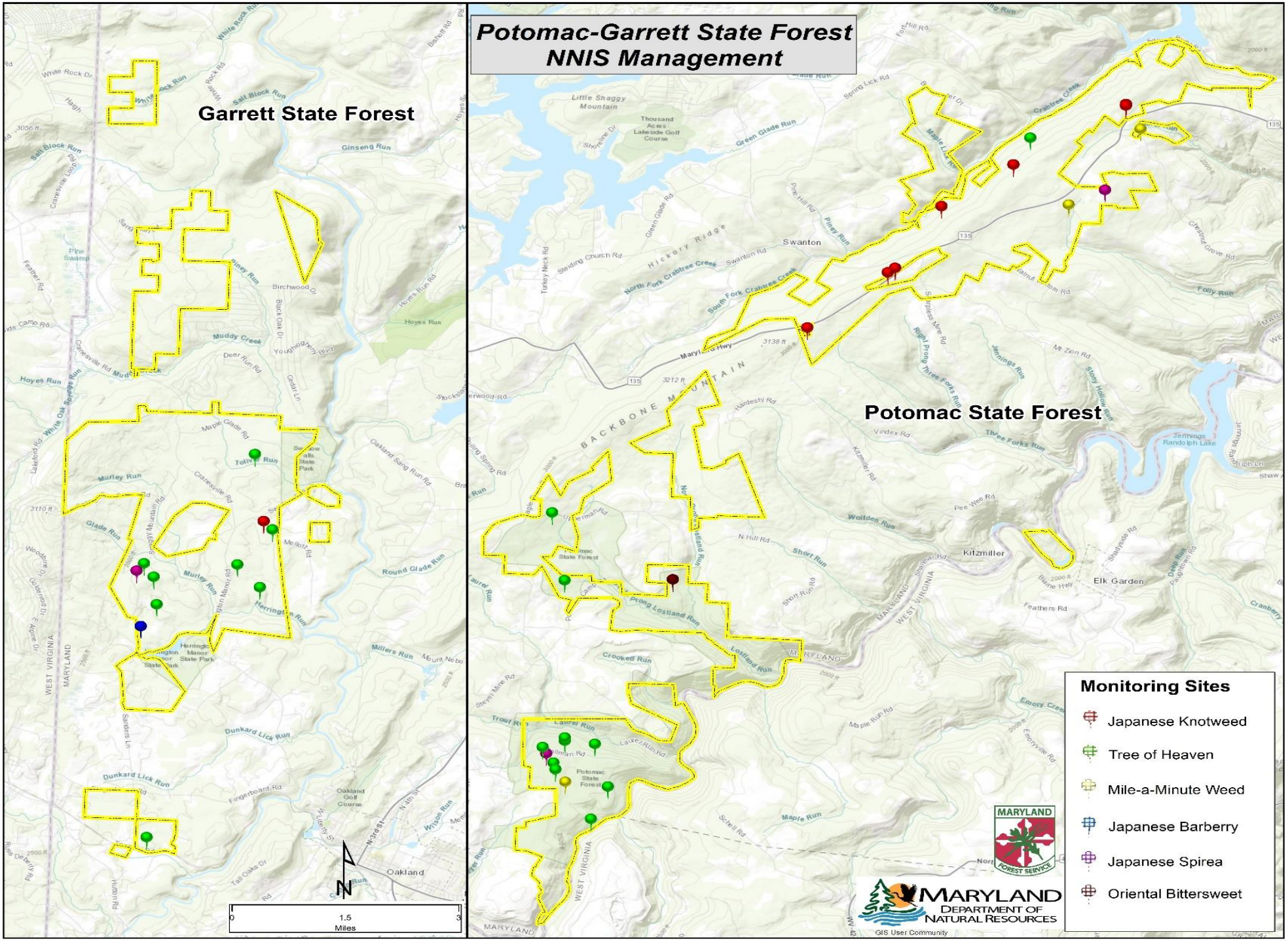


Figure 9. Map of NNIS management areas on Potomac-Garrett State Forest

B. Compartment 30, 32 – Multiple Stands: Non-Native Invasive Species Control Project ***(PG-2023-H-01)***

Description/Resource Impact Assessment

Location: This proposal encompasses 31 acres of the eastern side of the southern portion of Snaggy Mountain Road, extending approximately 1.2 miles north of the intersection with Sanders Lane.

Forest Community Type and Condition: This site is comprised of Allegheny hardwood and northern hardwood forest types. Average basal area is 125 ft^2/acre with an average merchantable diameter of 11.0 inches and an estimated net live growing stock of 3,327 board feet/acre and 14.5 cords per acre. The overstory consists of black cherry (41%), red maple (33%) and white oak (21%). Average relative density is 84 of average maximum stocking.

Interfering Elements: Several non-native invasive plants exist in the management area, but two species, Japanese barberry (*Berberis thunbergii)* and multi-flora rose (*Rosa multiflora*) are ubiquitous throughout the site forming dense thickets, outcompeting native vegetation, disrupting native habitat regimes, and encroaching on the forest interior.

Japanese barberry is native to Japan and was imported to the United States in 1875 as a substitute for the common barberry (*Berberis vulgaris*) that harbored wheat rust. The plant quickly became popular among landscapers and inevitably escaped cultivation to the surrounding environment (Kaufman, 2017). Japanese barberry can grow to a height of eight feet and has alternate spatulate smooth-edged leaves that form clusters along the branches with a single spine protruding below the leaf nodes that can reach ½" in length. Leaf color varies from dark green to red and purple. The inner bark of the angled stems is yellow. It is easily identified in the fall by abundant bright red berries that persist into winter. Birds are the main vector for the spread of seeds into the forest ecosystem, with deer contributing as well. The seeds have a high germination rate, contributing to the persistent nature of the plant. It can also spread via root creepers and branches rooting upon contact with the soil. At high densities, the plant can alter soil chemistry to its benefit and the thickets have a higher prevalence of Lyme-disease infected ticks than areas without the plant due to the higher humidity levels in the dense foliage (Domoto, 2020).

Multiflora rose was introduced from Asia in the late 1800's as rootstock for ornamental roses (Kaufman, 2017). In the 1930's and 40's various government agencies, including the U.S. Soil Conservation Service, promoted the species as a living fence, soil stabilizer and wildlife habitat due to its tolerance of a variety of soil types. The perennial deciduous shrub can grow up to 16 feet tall. Leaves are alternate, pinnately compound and the rigid reddish-green stems possess stout recurved thorns. Flowers are white with five petals. Quickly colonizing available gaps in a myriad of habitat types, this species forms seemingly impenetrable thickets and produces millions of seeds annually that can persist in the soil for 20 years. Reproduction can also occur via stem sprouts and rooting cane tips that contact the ground (Heubner, 2006).

Historic Conditions: Due to the proximity of the proposal to wetlands and its subsequent classifications into Ecologically Significant Areas, only two timber harvests have been conducted within the boundaries of the management area; a seven-acre thinning, and an eight-

acre regeneration harvest, both completed in 1977. No evidence of fire was observed, and no signs of significant insect infestations or diseases were recorded at the time of data collection.

Rare, Threatened and Endangered Species: Several rare, threatened, or endangered species have been documented within the management unit (see following section). Treatments to target NNIS species will be limited to spot applications on individual cut stems, stem clusters or foliage and no widespread treatments will be conducted that may harm neighboring organisms.

Habitats and Species of Management Concern: This management unit falls within both the Herrington Lake ESA and the Herrington South ESA. These wetlands support a rare breeding bird, listed as In Need of Conservation in Maryland and two uncommon breeding birds. Two other notable species were recently observed, but not confirmed as breeding. Some of the springs that feed the wetlands have water chemistry that is near neutral, providing optimum habitat for a state threatened plant and several others considered uncommon. The forest around these areas also supports an unusual yellow form of a common spring wildflower that normally is pink.

The Herrington South ESA consists of a variety of springs and seeps and upland habitats. A rare dragonfly has been documented in a wetland area near the boundary with the state park and two sites for a State Endangered upland plant have been documented. Two other uncommon plants have been documented on this section of the ESA. One of these has been found in enough sites in Maryland to be ranked as an S3, but it has a very small global range that includes Garrett County, nearby West Virginia, nearby southern Pennsylvania, and northern Virginia.
All management activities will occur beyond the designated ESA boundaries and will not affect the integrity of the areas.

Water Resources: Two unnamed tributaries drain from the north and south into Herrington Run which feeds Herrington Manor Lake within the Youghiogheny River Watershed. Some of the proposed treatments will occur within HCVF and stream buffer areas. Herbicide applications will be implemented with appropriate products labeled for aquatic use. No heavy equipment will be used within the protective riparian buffers of any streams or associated wetlands per the requirements set forth in the State Forests Sustainable Forest Management Plan.

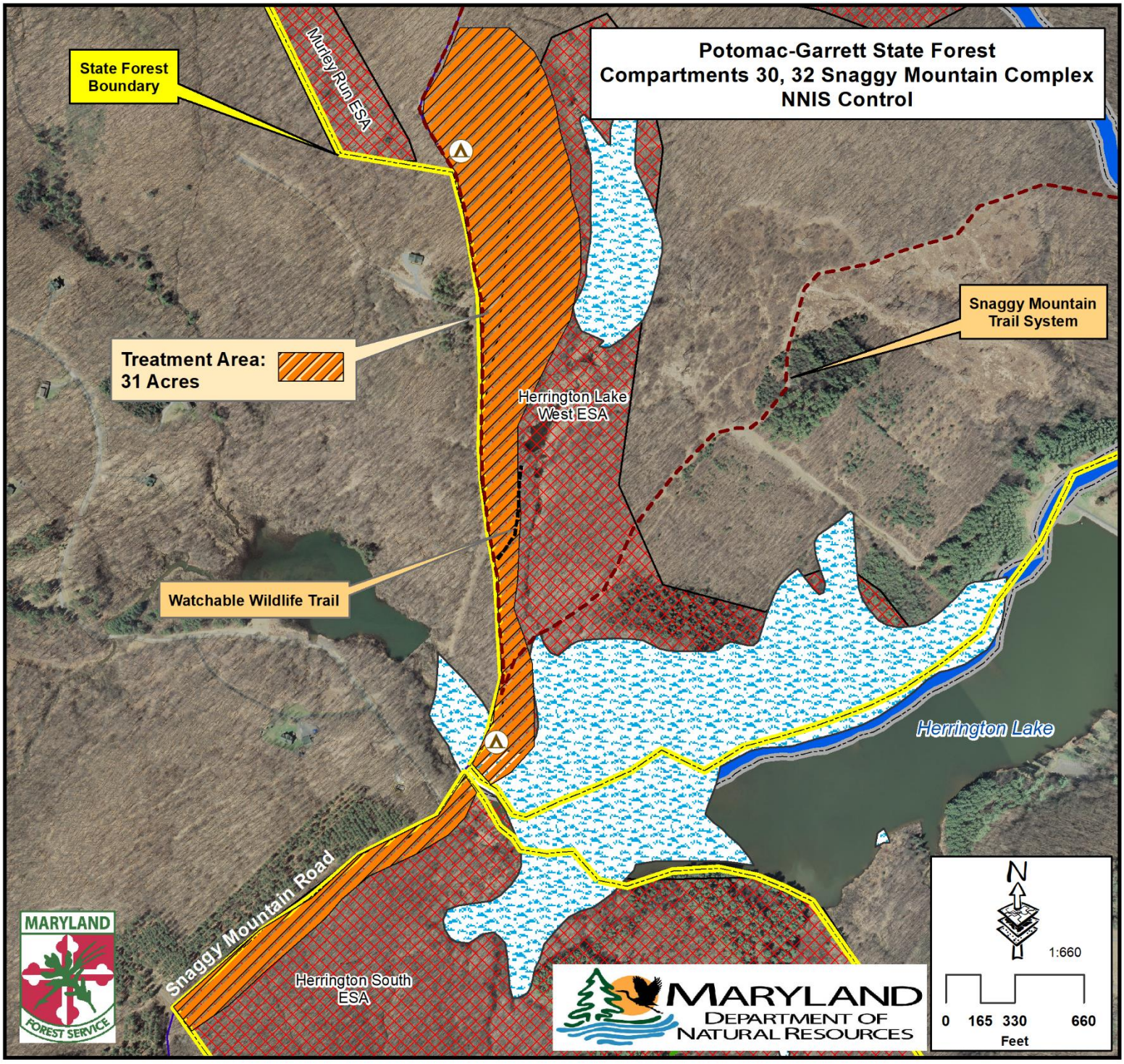
Soil Resources: The dominant soil types of the management unit are categorized as Brinkerton and Andover very stony silt loam, 0 to 25 percent slopes and Lickdale silt loam (BsC and Lc). These soils are moderately deep and poorly drained. Equipment limitations are severe due to extended periods of wetness when the water table is at or near the soil surface. The area has high productivity for both upland oaks and black cherry with a site index range of 75 to 85. The productivity of the site will not be affected by the prescribed management recommendations.

Recreational Resources: The Watchable Wildlife Trail and a small section of the Snaggy Mountain Trail System fall within the limits of the proposal and the western portion of the project abuts Snaggy Mountain Road, but no motorized equipment will be used during the implementation of the project, therefore any disruption of recreational opportunities will be minimal.

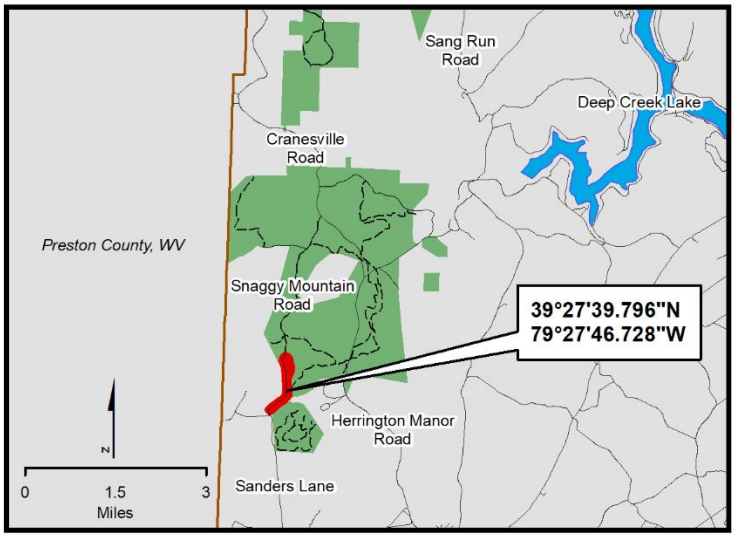
Management and Silvicultural Recommendations

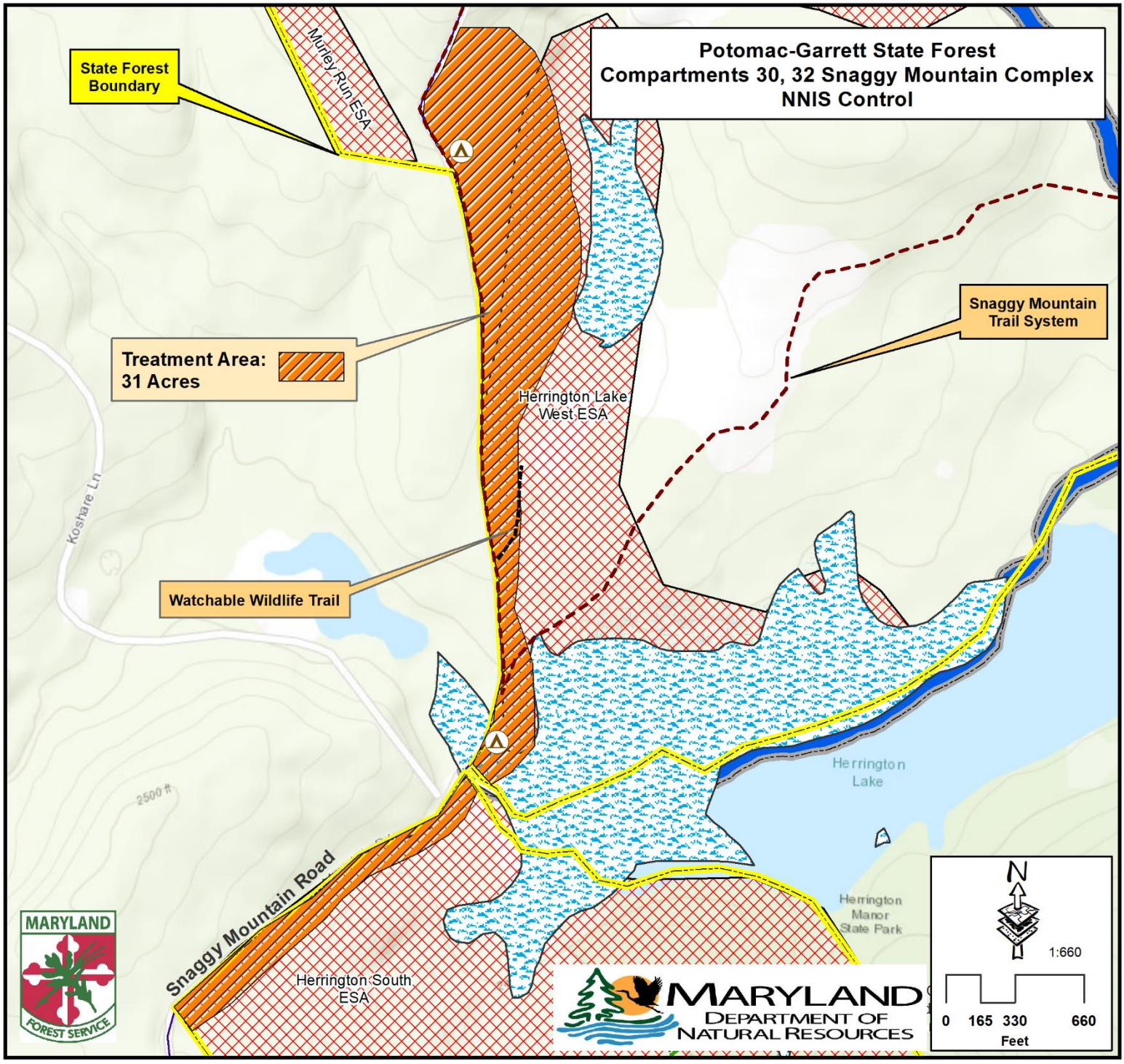
Management of the NNIS species will involve the mechanical cutting of stems and application of appropriate herbicide to the cut surfaces as well as foliar applications via backpack sprayers. For this project, Rodeo herbicide (EPA Reg No 62719-324; 53.8% Glyphosate) will be utilized, as it is labeled for aquatic use, where necessary. This project will be implemented by Potomac-Garrett State Forest staff. Due to the persistent nature of these invaders, this project will require ongoing annual monitoring for herbicide efficacy and herbicide reapplications to reach an acceptable threshold of control or to potentially eliminate the two species from the area. Further control efforts will expand into the Herrington South ESA following successful results from the initial project implementation.

Figure 10. Japanese Barberry infestation in Compartment 30



- Wildlands
- Ecologically Significant Area
- Old Growth
- Old Growth Ecosystem Area
- Wetland of State Concern
- Streams and 50' Buffers





- Wildlands
- Ecologically Significant Area
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- Old Growth Ecosystem Area
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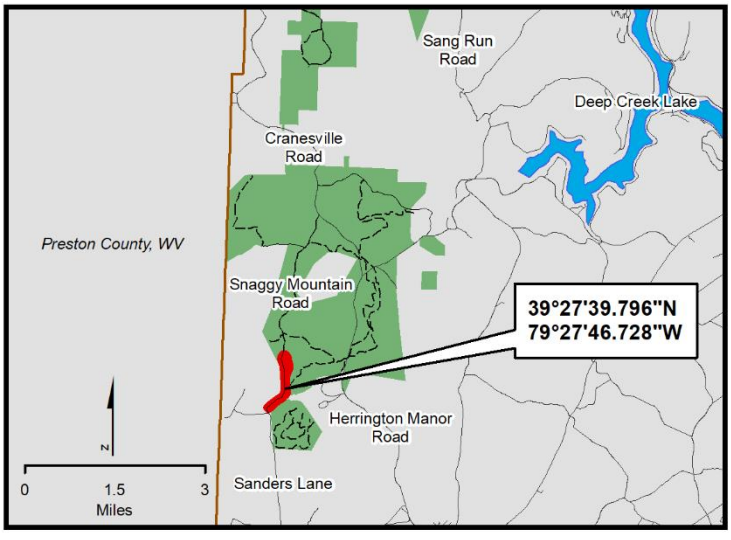


IX. Monitoring and Research Projects

A. Monitoring

1. Silvicultural Activities

All silvicultural operations taking place on Potomac-Garrett State Forest will be monitored on a weekly basis and more frequently when adverse weather conditions arise to ensure that all Best Management Practices are being followed. Regeneration harvests will be monitored five and ten years after harvest. Non-native invasive species will be monitored yearly and herbicide treatment regimens will be implemented as necessary to eradicate these species from the forest ecosystem. Management documents outlining specific treatments and monitoring schedules have been drafted for the individual species.

B. Research Projects *(Full write-ups of each project are available at the State Forest Office)*

1. Eastern Hemlock: Target-tree Release to Improve the Sustainability of Eastern Hemlock (Tsuga canadensis) in the Southern Appalachian Mountains. US Forest Service Southern Research Station and North Carolina State University (Jetton, Mayfield et al, 2021).

This ongoing project will develop and validate a silvicultural tool that improves the health and sustainability of eastern hemlock, an ecologically keystone species in the southern Appalachians threatened by HWA. Individual or small clusters of "target" trees (i.e., suppressed or intermediate eastern hemlocks with moderate to good crown health) will be released by removing or girdling other stems competing for sunlight directly above and adjacent to the target trees. Increased sunlight is expected to improve hemlock crown health via improved carbon balance, enhanced foliage production, and reduced HWA settlement rates relative to unreleased trees. Treatments will be replicated at a number of southern Appalachian sites and will evaluate release by girdling versus felling and variations on the size of the resulting canopy gap. Operationally, the tool is expected to prolong hemlock health and survival and increase the efficacy of existing HWA management tools (e.g. biological and chemical control) when integrated with them. The project will involve fifteen treatment sites; 10 located in the Laurel Run drainage in Compartment 23 and five located along Lostland Run Road in Compartment 19. Initial post treatment data collection was completed on all sites in March 2018 and again in July 2018 involving hemlock health at one year, adelgid density, vegetation measurements and data analysis. Follow up data collection and analysis will continue through the Fall of 2022.

2. Orchid Collection. Smithsonian Environmental Research Center (Wigham, 2021).

The Smithsonian Environmental Research Center's North American Orchid Conservation Center (NAOCC) has initiated a large-scale (U.S. and Canada) effort to conserve native orchids. We request to collect orchid samples from the DNR properties for our ongoing national orchid conservation program. NAOCC's approach to conservation is ecological, involving the collection of materials from native orchids (seeds, leaves, roots) for research purposes. The seeds are placed into seed banks to conserve the genetic diversity of native orchids and for conducting germination and propagation experiments both for research and restoration. Leaves are used to

isolate DNA in order to determine the level and patterns of genetic diversity of species across the US and Canada. Roots are sampled to isolate, culture and identify the orchid mycorrhizal fungi required by all native orchids to complete their life cycles in nature. The fungi are a source of carbon and other resources for the orchids. All native orchids have a non-photosynthetic stage (protocorm) that can only survive and grow by digesting fungi. The fungi that we are able to culture are identified using molecular techniques (thus far almost all that we have worked with are new to science). Fungi are stored in a fungal-bank and used in germination and propagation studies. Seeds from Maryland native orchids will be stored at SERC and the Mid-Atlantic Seed Bank (MARSB) in New York. Fungi and leaves will be stored at SERC. There are no special considerations related to this project. Fruits and roots will only be collected when the populations are sufficiently large and robust enough to support such collections without damage to the sustainability of the population.

Three sites have been identified on the Garrett State Forest within the Snaggy Mountain Complex that contain Roundleaved orchid (*Platanthera orbiculata*) and Pink Lady's Slipper (*Cypripedium acaule*). Both species are considered demonstrably widespread, abundant and secure in terms of global rank indicators. Collection efforts will continue through 2022.

3. Statewide Wood Turtle (Glyptemys insculpta) Population Assessment and Management. Maryland DNR Wildlife and Heritage Service (Smith, 2021).

Maryland is participating in a regional Comprehensive State Wildlife Grant project with ten other states from 2021 to 2023 to begin implementation of the 2018 northeast wood turtle conservation plan. There are 3 main tasks to our request: 1) Conduct standardized visual encounter surveys in streams and along stream banks and use mark-recapture techniques to estimate population (this is a continuation of work done by DNR Ecologist Ed Thompson until his retirement in 2018). DNA will be collected from a sample of turtles in priority populations and turtles will be pit-tagged; both methods to aid in law enforcement efforts related to confiscations from illegal collecting activities, and to refine regional genetic unit assignments. eDNA will be sampled from streams at 30 sites statewide. 2) Identify nesting habitat and, if needed and permission can be obtained from individual land unit managers, conduct management to enhance nesting opportunities. This would mostly involve invasive vegetation management but could include installing predator excluders and/or nesting substrate manipulation. 3) Work with willing land unit managers to establish BMPs for field mowing (wood turtles spend summers in hayfields and pastures) and roadway management to reduce roadkill. Ideally, surveys will begin by the end of October.

Surveys will be conducted in a variety of small to large streams and rivers. Wood turtles prefer streams with hard sand or gravel bottoms (not clay or muck), moderate current, clear water, and mostly use pools (not riffles). Management will occur primarily along stream banks and adjacent upland areas. Standardized population surveys require 3 surveys per season (spring and/or fall) for a maximum of 6 surveys. Each survey is of a 1 km stream reach, attempting to complete the 1 km survey in 1 hour of active searching. Turtles are measured, marked, and *released back at point-of-capture* immediately. eDNA will be collected at the beginning of each survey at the 30 sites chosen statewide. DNR is partnering with the Susquehannock Wildlife Society (SWS) and

the Mid-Atlantic Center for Herpetology and Conservation (MACHAC). Staff from SWS and from MACHAC will be conducting most of the Central Region surveys while DNRNHP staff will be focused on the Western Region surveys. SWS and MACHAC will have DNR issued Scientific Collecting Permits. Individual DNR land unit staff will be offered the opportunity to participate in surveys and report wood turtle sightings.

The northeastern wood turtle conservation plan can be accessed at: http://www.northeastturtles.org/uploads/3/0/4/3/30433006/woodturtleplan_2018_final_v2.2.pdf.

4. Bat Population Monitoring, Multiple Projects. Maryland DNR Wildlife and Heritage Service (Feller, 2021).

Project 1: Monitoring Use of Installed Rocket Bat Roost Boxes

Rocket bat roost boxes were purchased and installed using previous WNS grant funds on protected lands where WNS-affected bat species have been detected through acoustic surveys or by other means, or where WNS-affected species are likely to occur. These boxes have been shown to be effective roost structures for northern long-eared bats and little brown bats, and even preferred by Indiana bats (Hoeh et al. 2018). Monitoring these roost boxes will provide information on their use by Maryland's WNS-affected species, provide baseline information for use in management decisions, and inform the placement of additional roost boxes. Monitoring will be achieved through visual surveys and acoustic detector placement during June 2021.

Project 2: Acoustic Surveys of Rock Outcrops, Talus Slopes, Cave Entrances, and Managed Protected Lands

The overarching goal of this project is to install acoustic bat detectors to determine bat use throughout the year at target sites and during key activity periods at cave entrances and on managed protected lands with particular emphasis on WNS-affected bat species. The goal is to document the bat fauna on public and conservation lands across the state to improve management and protection. Acoustic detectors and tower mounts purchased previously with WNS grant funds and Pittman-Robertson funds will be used for these surveys.

Maryland has numerous rock outcrops and talus slopes that have never been surveyed for bat use as they tend to be challenging to survey. Several states in the U.S. are surveying talus slopes that could potentially be used by northern long-eared bats, little brown bats, and eastern small-footed bats. Talus slopes and rock outcrops may not be as conducive for Pd to grow and thus bats wintering there may experience less exposure to the fungus that causes White-nose Syndrome. These species, particularly eastern small-footed bats, may also use these same areas as maternity sites. These sites are also vulnerable to disturbance from recreational climbers and other outdoor visitors, mining, and effects of forest management practices on the surrounding landscape. Data will be collected by placing acoustic detectors year-round to document use of these areas.

Surveys conducted in and around hibernacula, including spring emergence, fall swarming, and winter cave interior surveys, continue to provide critical data for WNS-affected bats in

Maryland, including tracking their recovery. Traditionally these surveys have been carried out in person, but restrictions on staff activities as well as concerns about human to bat transmission due to the COVID-19 pandemic and SARS-CoV-2 are causing other states to cancel their upcoming hibernacula surveys and limit live-trapping surveys. We propose to investigate bat presence in cave hibernacula in 2020-21 using acoustic detectors rather than in person. Acoustic detectors will be placed at cave entrances during spring emergence and fall swarming using protocols already established by other states.

Bats need to be managed on a landscape scale and not on a project-to-project basis. Forest management on state lands and lands managed by conservation partners such as The Nature Conservancy have the potential to sustain WNS surviving bat populations if silvicultural activities and prescribed burning are done sensitively with bats in mind. Maryland has 73,723 acres in state forest land alone that comprise Chesapeake Forest. A Sustainable Plan was initially adopted in Chesapeake Forest and all three State Forests in Western Maryland, dually certified with the Forest Stewardship Council® (FSC® - C016194) and Sustainable Forest Initiative® (SFI® -00050). These state forests undergo annual audits and will continually have additions of new acreage. Management recommendations to include bats have been met with enthusiasm and are an important component of conservation reports to auditors as work progresses. Recent work in more southern states has indicated the importance of Coastal Plain forests to the northern long-eared bat and other species, further supporting this investigation into the Chesapeake Forest and Eastern Shore bat communities. Since prescribed burning and silvicultural activities such as clearcuts and selection harvests can occur throughout the year, determining WNS-affected species' use of these areas year-round remains critical for determining time-of-year recommendations.

Acoustic data collection will also be carried out on a more limited basis on managed state lands where prior NABat and other acoustic studies have documented *Myotis* and tri-colored bats, and in locations where management plans are in development. Detectors will be deployed for at least 1-2 weeks in June 2021 to confirm prior data or document new records of WNS-affected species. More intensive surveys will be carried out at sites where Indiana bat and northern long-eared bat presence was indicated from NABat surveys in 2018 and 2019.

At all sites, acoustic data will be used to determine if time-of-year restrictions need to be in place in recreational use areas to direct conservation and recovery habitat protection measures for bat populations. Year-round, hibernacula, and breeding season information can also be used when conducting environmental review and planning on conservation lands. For instance, if northern long-eared bat activity is detected in the breeding season, this could become a target area to promote uneven aged, accelerated old growth forest management, high snag retention or let it grow management actions.

5. *Emerald Ash Borer Biological Control Monitoring. University of Maryland, College Park (Gruner, 2021).*

Project Description: The purpose of this document is to seek permissions for research efforts to reduce emerald ash borer densities in state owned lands and urban forests using sustainable methods. Emerald ash borer (*Coleoptera: Buprestidae: Agrilus planipennis* Fairmare) has killed

millions of ash trees in urban and natural forests resulting in over $25 billion in loss, in addition to the ecological and environmental impacts resulting from EAB. Our project will assess the efficacy of biological control agents on populations of emerald ash borer in several state and federally managed parks in Maryland.
This project will help identify the impacts of EAB on ash health and survival at several stages of infestation as well as asses the efficacy of introduced parasitic wasps (four species of parasitic *Hymenoptera*).
This request would extend the project through April of 2024. It would include several sampling periods throughout the year depending on the specific objective. A portion of sites were used as a release site for biological control in the years between 2009 and 2013. Parasitoid releases were conducted by a former UMD PhD student, Dave Jennings, who maintained detailed records of the numbers and specific localities for release. Other sites have been monitored for establishment of biological control from 2016-present. Biological control will also be released at new sites by Heather Disque and Craig Kuhn (MDA) to phase out older, less productive sites currently being monitored.

To assess efficacy of the biological control agents, we will 1) assess ash health and survival, 2) assess the establishment of parasitoids and their impact on EAB population and ash survival, 3) monitor for adult EAB densities, 4) begin periodic releases of biological control agents at newly created sites.

To achieve this, we propose to 1) perform ash health surveys (crown condition, dbh, signs of infestation) and transect surveys, 2) debark four (4) infested ash trees (~10cm DBH) and ten (10) ash saplings (<5cm DBH), deploy yellow sticky cards to monitor for adult parasitoid activity, and deploy "sentinel logs" or bolts of ash wood with EAB larvae inserted within to detect parasitism events at set locations, and finally deploying "sentinel eggs" or EAB eggs inside mesh netting to detect active egg parasitoids, 3) install Lindgren funnel traps, and 4) release biological control agents at each site.

Ash health surveys and transect surveys will occur during summer months while vegetation is visible. Transect surveys will be randomly assigned in lengths of over 100m branching out from the initial release site. Assessment of the establishment, density, and impact of hymenopteran parasitoids on EAB requires felling of ash trees during the winter or early spring. The bark of ash trees is then stripped with draw knives to reveal larvae, prepupae, and their larval parasitoids. The fate of each EAB larvae is then determined (i.e. parasitized, diseased, alive). Sentinel eggs and logs will be deployed to measure parasitoid dispersal at several locations at each site; these sentinel logs and eggs do not allow EAB to escape and infest trees at the site. In addition, yellow sticky cards will be hung from infested ash trees and collected on a weekly basis to detect adult parasitoids in the environment. To monitor for adult EAB populations, several Lindgren funnel traps will be installed in tree canopies and checked periodically during summer months. Parasitoid releases will be coordinated via Heather Disque (MDA) and tracked via the national EAB biological control database, MapBiocontrol.

General Site Conditions: Site conditions will vary site by site, for each tree, and throughout the study period. Sites in southern Maryland generally consist of swampland close to highways or residential areas. Sites in western Maryland consist of mountainous terrain accessed via local

roads. During these sampling periods the sites will be accessed from the nearest paved area on foot. Most trees are reached by vehicles to the closest paved area, followed by access by foot on trails. Visitation and any destructive sampling (i.e., debarking) are coordinated in consultation with park management.

Project Considerations: This project is in coordination with MDA (Heather Disque/Craig Kuhn), USDA: ARS (Dr. Jian Duan), and the University of Maryland (Dr. Gruner). Most surveys are time sensitive because of insect phenology and life cycle. This project will require destructive sampling of four (4) ash trees and ten (10) ash saplings, in consultation with the managers of each State Forest and State Park.

X. Silvicultural Proposals

COMPARTMENT 36 – Stands 1 and 5 **FY-23**

Description/Resource Impact Assessment

Location: This 34-acre proposal is located on the west side of Snaggy Mountain Road, abutting Fire Tower Road approximately 0.6 miles south of the intersection with Cranesville Road.

Forest Community Type and Condition: This site contains a small sawtimber mixed oak stand that is approximately 78 years old, with an average merchantable diameter of 13.4 inches and an estimated net live growing stock of 5,771 board feet/acre and 16.3 cords per acre. The overstory consists of red maple (39%), white oak (29%) and black cherry (12%). The stand is overstocked with a relative density of 77%/acre and an average basal area of 105 ft^2/acre. Of the total basal area, 44 ft^2/acre (42%) is considered unacceptable growing stock. Competitive desirable regeneration is found on 36% of the site and established/competitive oak regeneration covers 50% of the site.

Interfering Elements: Interfering understory plant competition is limited throughout the stand, with a negligible impact on the establishment of desirable regeneration. This stand is near agricultural lands, which attract significant numbers of white-tailed deer to the area leading to browsing of desirable regeneration. Such overbrowsing can facilitate failure of desirable seedling establishment and in extreme cases a shift in species composition dominated by undesirable tree species. Field evaluation of the site estimated deer browse impact to be moderate. Monitoring of deer browse impacts will coincide with regeneration surveys to determine if additional measures need to be implemented to reduce deer herbivory and maintain the established regeneration on the site.

Historic Conditions: No silvicultural work has been implemented in the stand during state ownership. No evidence of fire was observed, and no signs of significant insect infestations or diseases were recorded at the time of data collection.

Rare, Threatened and Endangered Species: Several rare, threatened, or endangered species have been documented within the management unit (see following section).

Habitats and Species of Management Concern: Twenty-five acres of the management unit fall within the Bull Glade Run ESA. This ESA is a complex of pristine springs, small streams, significant wetlands, and other ecologically important habitats. The abundant water in the area, ending up primarily in Bull Glade Run and Murley Run, represents a significant portion of the headwater drainage system of Herrington Creek, a major tributary to the Youghiogheny River. Snaggy Mountain Road, a north/south running public dirt/gravel road, bisects much of the ESA. In the northern section, Snaggy Mt. Fire Tower Road, a limited access road, dead ends after traversing a mile and a half or so to the west. The interesting habitats on this site have led to the discovery of several uncommon and rare flora and fauna. Two rare butterflies have been documented from the site, one listed as Threatened in Maryland, and the other listed as In Need of Conservation. Three other animal species, all listed as Endangered in the State, have been

documented in the varied habitats of the area. These include a breeding bird, a snake, and small mammal. Another reptile with special conservation needs also has important habitat on the ESA. Additionally, this site, in conjunction with other forested land around it, supports a high diversity of wildlife. Heritage staff will be consulted on the layout of the project to ensure that appropriate measures are implemented to protect the unique qualities of these sites. All management activities will occur beyond the designated ESA boundaries and will not affect the integrity of the areas.

Water Resources: These stands drain southeast into Bull Glade Run within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all stream buffer areas. No heavy equipment will be permitted within the protective riparian buffers of any streams or associated wetlands per the requirements set forth in the State Forests Sustainable Forest Management Plan.

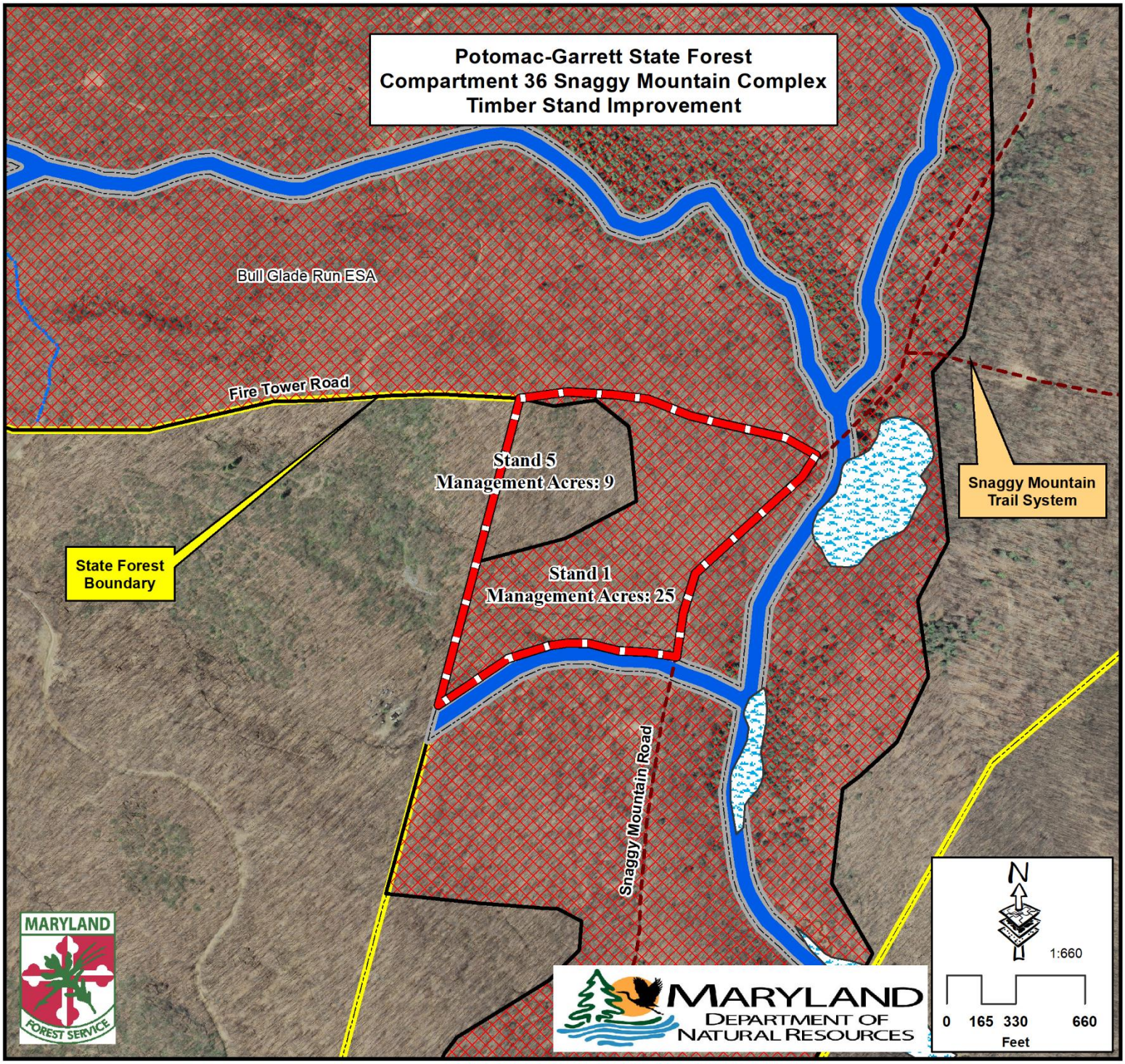
Soil Resources: The dominant soil types of the management unit are categorized as Dekalb and Gilpin very stony silt loams, 15 to 25 percent slopes (DgD). These soils are moderately deep and well drained. Equipment limitations are slight to moderate where slopes are more than 15%. The site has good productivity for woodland management, with a site index of 65-75 for upland oaks. The productivity of the site will be protected by minimizing the haul roads and skid trails as per the Department's Best Management Practices and rutting guidelines.

Recreational Resources: The management unit is bordered by Snaggy Mountain Road to the east and Fire Tower Road to the north, both highly traveled thoroughfares. Light equipment will be used to harvest and haul wood products from the site and any disruptions on either roadway for the duration of the will be minimal. Hunting is the primary recreational pursuit occurring in this area. Recreational opportunities within the stands may be disrupted for the duration of the harvest activities.

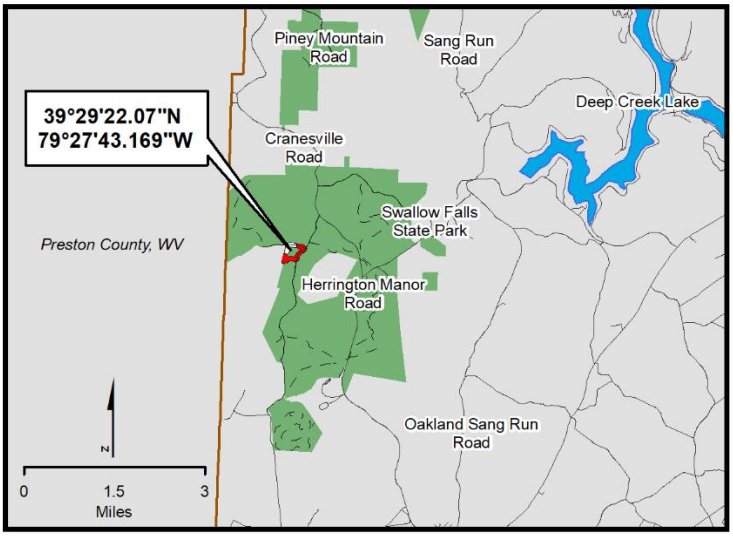
Management and Silvicultural Recommendations

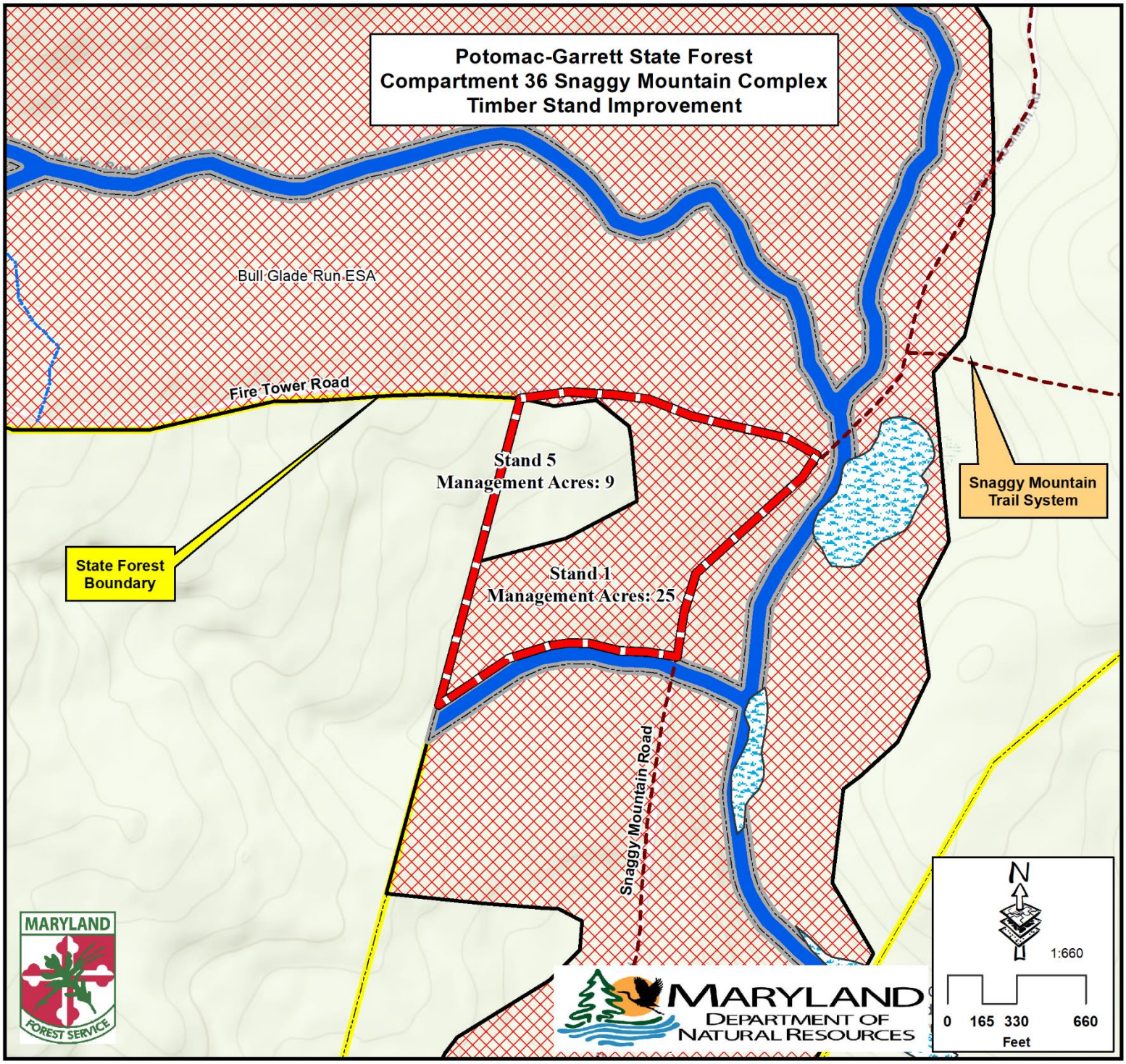
To release/retain the cohort of established oak regeneration, conducting a non-commercial TSI is recommended. Removals will focus on unacceptable growing stock in the pole size class with a target basal area reduction of 30-40%. This will release the established/competitive regeneration and increase the growth and vigor of the residual stand as well as providing mast sources for wildlife. Stand 1 is located within the Bull Glade ESA and all trees will be hand cut and only light tracked equipment will be used to extract the wood to minimize soil disturbance. All streams, springs, seeps, etc. will be adequately buffered to eliminate any negative influence on local water quality.

Given the nature of the harvest, it is recommended that the organization, Appalachian Crossroads, be given the opportunity to conduct the harvest. They are a non-profit organization based in Oakland that is dedicated to empowering individuals with disabilities to contribute to the community through employment support. The organization has successfully completed several similar harvests on Garrett State Forest. Harvest contracts are structured as In-Kind Firewood Harvests, with the state forest receiving one cord per every 10 cords harvested.



- Wildlands
- Ecologically Significant Area
- Old Growth
- Old Growth Ecosystem Area
- Wetland of State Concern
- Streams and 50' Buffers





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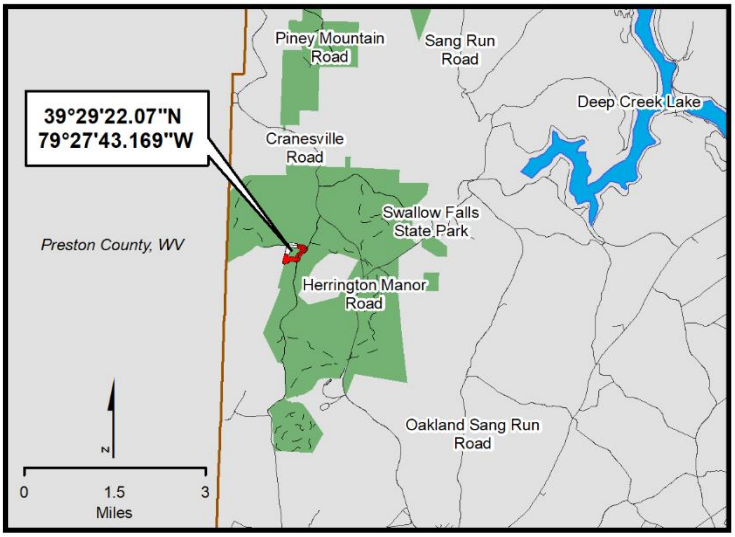


COMPARTMENT 43 – Stand 2 **FY-23**

Description/Resource Impact Assessment

Location: This site is located off the Kindness Demonstration Forest Trail / Disabled Hunter Access Road, approximately .60 miles southeast of the intersection with Fingerboard Road.

Forest Community Type and Condition: This 20-acre site contains a small sawtimber mixed oak stand composed of white oak (55%), scarlet oak (21%) and serviceberry (9%) with an average merchantable diameter of 12.5 inches. The stand is approximately 82 years old with a relative density of 96% of the average maximum stocking and basal area of 108 ft^2/acre. Live growing stock volumes are estimated at 3,453 board feet/acre and 14.3 cords/acre. Desirable established regeneration is found on 100% of the proposal area and competitive desirable regeneration is found on 67%. Established or competitive oak comprises 93% of the desirable regeneration.

Interfering Elements: Interfering understory plant competition is limited throughout the stand, with a negligible impact on the establishment of desirable regeneration. This stand is near agricultural lands, which attract significant numbers of white-tailed deer to the area leading to browsing of desirable regeneration. Overbrowsing can facilitate failure of desirable seedling establishment and in extreme cases a shift in species composition dominated by undesirable tree species. Field evaluation of the management unit estimated deer browse impact to be moderate. Monitoring of deer browse impacts will coincide with regeneration surveys to determine if additional measures need to be implemented to reduce deer herbivory and maintain the established regeneration on the site.

Historic Conditions: A 7-acre white oak timber stand improvement harvest was conducted in 2012. No evidence of fire was observed, and no signs of significant insect infestations or diseases were recorded at the time of data collection.

Rare, Threatened and Endangered Species: Several rare, threatened, or endangered species have been documented within the management unit (see following section).

Habitats and Species of Management Concern: Sixteen of the twenty acres of the management area fall within the Dunkard Lick ESA. This ESA consists of three small wetland systems around two headwater streams of Chisholm Run and one at the headwaters of Dunkard Lick. These wetlands support several rare plants, three of which are state listed (two Threatened, one Endangered). Another plant associated with upland habitat occurs on the ESA and is listed as State Endangered. In addition, several springs feeding the wetlands support two State-listed invertebrates. One of these is globally rare and listed as State Endangered. The other species is listed as In Need of Conservation. A rare breeding bird, listed as In Need of Conservation has also been recorded here.

Water Resources: This stand drains north into Dunkard Lick, within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all stream buffer areas. No heavy equipment will be permitted within the protective riparian buffers of any streams or associated wetlands per the requirements set forth in the State Forest Sustainable Forest Management Plan.

Soil Resources: The dominant soil type of the management unit is categorized as Cookport and Ernest very stony silt loams, 0 to 8 percent slopes (CuB). This soil is moderately deep and moderately well drained. Equipment limitations are moderate because the water table is close to the surface during the winter and spring. The site has very good productivity for woodland management, with a site index of 75 - 85 for oaks. The productivity of the site will be protected by minimizing the haul roads and skid trails as per the Department's Best Management Practices and rutting guidelines.

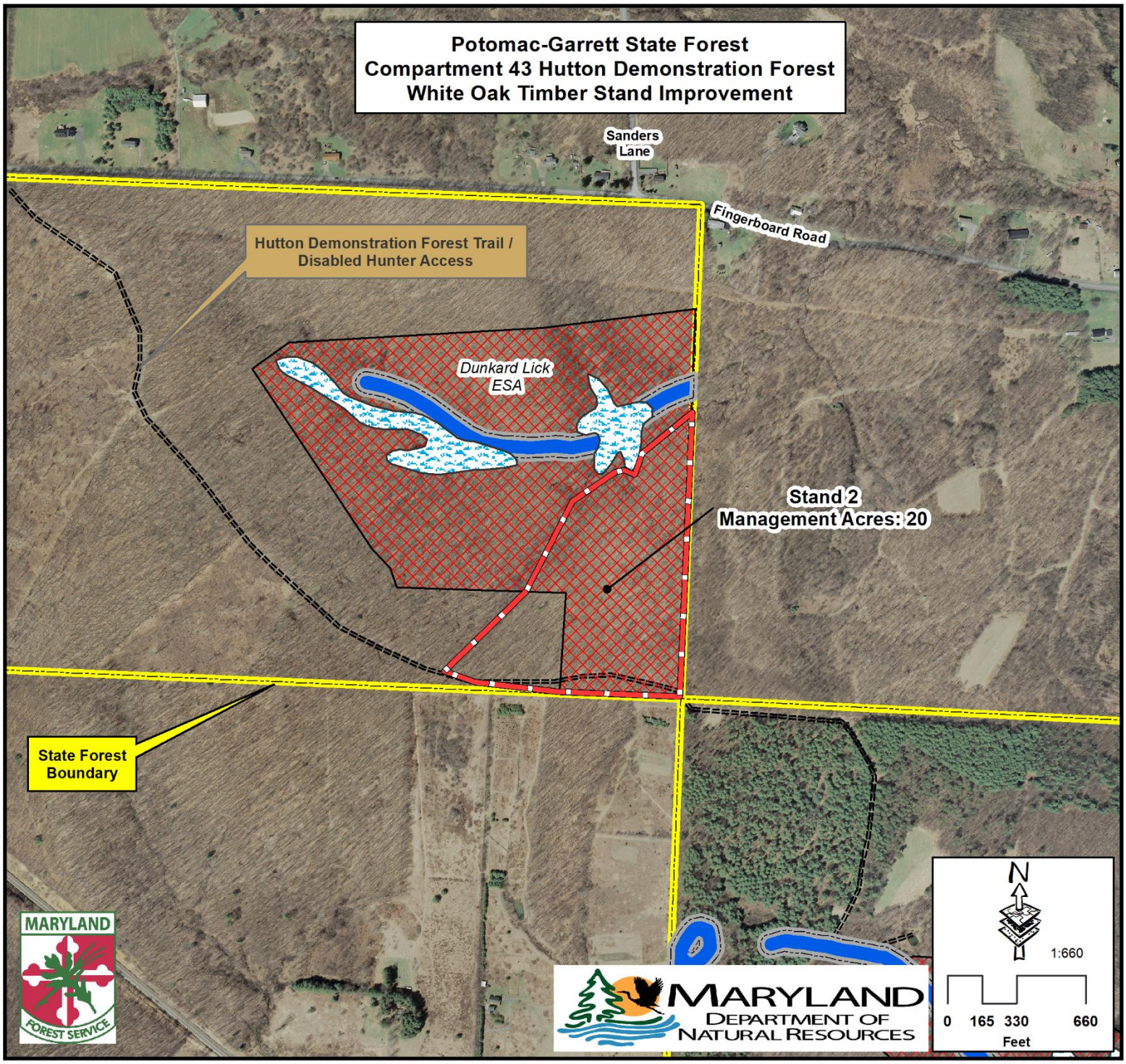
Recreation Resources: The Kindness Demonstration Forest Trail and Disabled Hunter Access Road pass through the southern portion of the proposal. Recreational opportunities may be disrupted for the duration of the harvest activities and access to the site may be limited depending on the timing of the operations.

Management and Silvicultural Recommendations

The recommended silvicultural strategy is to expand the implementation of a non-commercial TSI from the demonstration area into the surrounding stand. Undesirable/unacceptable growing stock will be removed primarily from the pole size class, reducing the basal to 50-60 ft^2/acre. This will release established regeneration, increase the growth and vigor of residual stand, and provide a mast source for wildlife. The profuse amount of regeneration in this stand is atypical and efforts need to be implemented to ensure that it is retained.

Because most of this proposal lies within the Dunkard Lick ESA, felling will be done by hand and only light tracked equipment will be used to extract the wood. All streams, springs, seeps, etc. will be adequately buffered to eliminate any potential negative influence on local water quality. This stand, as well as with the two previous stands, provides a unique opportunity, although unconventional in oak management, to create a true two-age white oak stand, given that a final commercial harvest will not be conducted.

Workers from the Appalachian Crossroads employment support program conducted the previous harvest that serves as the TSI demonstration harvest, with excellent results, and will be offered the opportunity to continue this harvest via an in-kind firewood contact as mentioned in the previous proposal.



- Wildlands
- Ecologically Significant Area
- Old Growth
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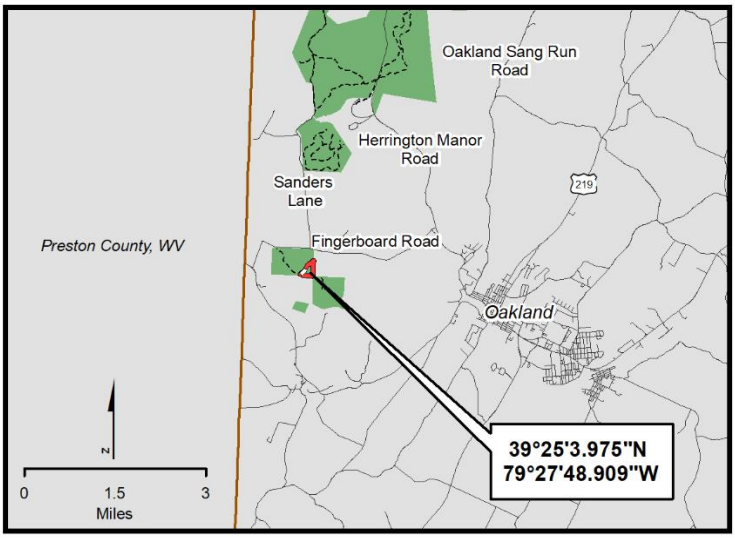

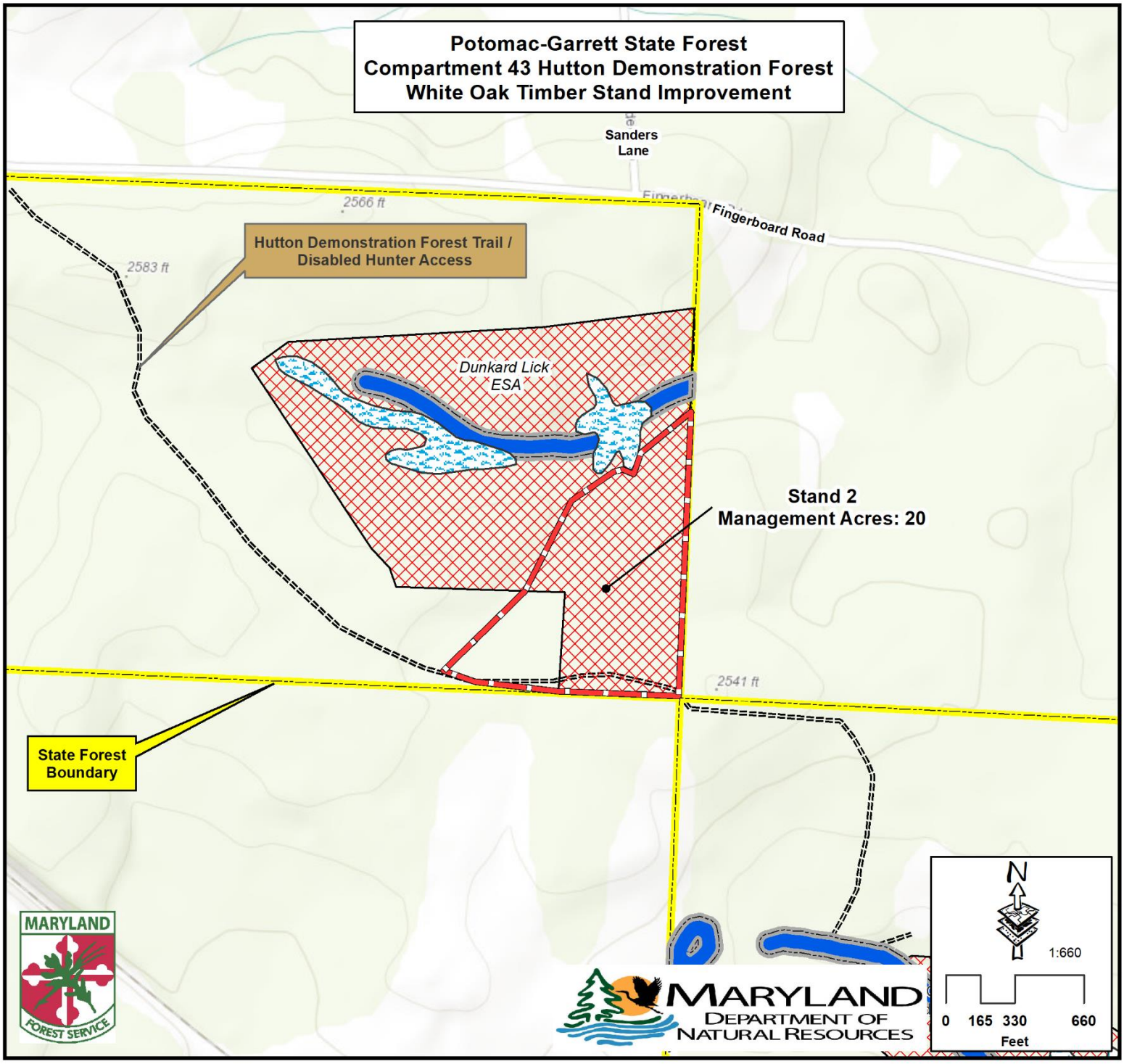

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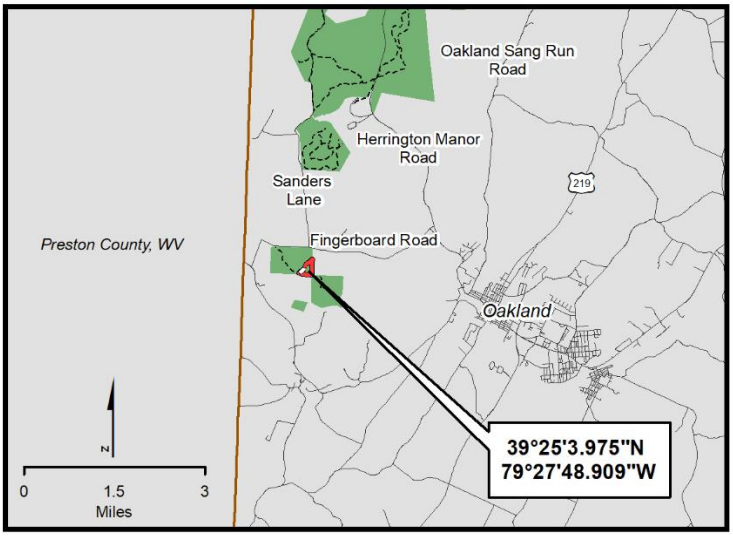


COMPARTMENT 46 – Stand 11 **FY-23**

Description/Resource Impact Assessment

Location: This 11-acre harvest proposal is in the Piney Mountain Complex located on the northern side of the high-tension power line approximately 1,900 feet west of Piney Mountain Road.

Forest Community Type and Condition: This management unit is composed of a medium sawtimber mixed oak stand underplanted with red spruce. Eastern hemlock is also found sparingly throughout the site. The canopy consists of northern red oak (41%), red maple (41%) and chestnut oak (13%). The stand has an average basal area of 70 ft^2 /acre.

Interfering Elements: Overall interfering understory competition was found on 100% of the stand. Tall woody interference occupies approximately 95% of the site, dominated by black birch saplings and poles. No Non-Native Invasive Species were recorded within the management unit.

Historic Conditions: A shelterwood harvest was conducted in 2002. Following the harvest, 1,600 red spruce seedlings were planted in the resulting light gaps on seven acres of the harvested stand from 2003 – 2006 to expand an existing stand of red spruce. Neither evidence of fire nor any signs of significant insect infestations were observed during the inventory of the stand.

Rare, Threatened and Endangered Species: No rare, threatened or endangered species have been identified on the site that would be impacted by the silvicultural prescription.

Habitats and Species of Management Concern: Red spruce (*Picea rubens*) is a medium-sized, native, evergreen conifer that attains an average height of 60-75 feet and can live for over 300 years. Once common in the highlands of Garrett County, red spruce represented a significant timber species at the turn of the century. Over time, red spruce has been displaced from its historical range in western Maryland through overharvesting and shifts in climate, particularly temperature increases, pollution, and limited snowfall (USDA, 2002). Isolated pockets of red spruce are found throughout the county in both natural stands and plantations. Significant efforts have been made to assure the continued existence of this once abundant tree species. The Nature Conservancy has initiated significant Red Spruce restoration efforts in the Cranesville Swamp preserve immediately to the west of this proposal. located in the state forest. The focus of this project is to maintain this habitat type as a part of the forest mosaic. If proven successful, similar management strategies will be implemented across key areas of the forest to expand the extent of this dwindling habitat.

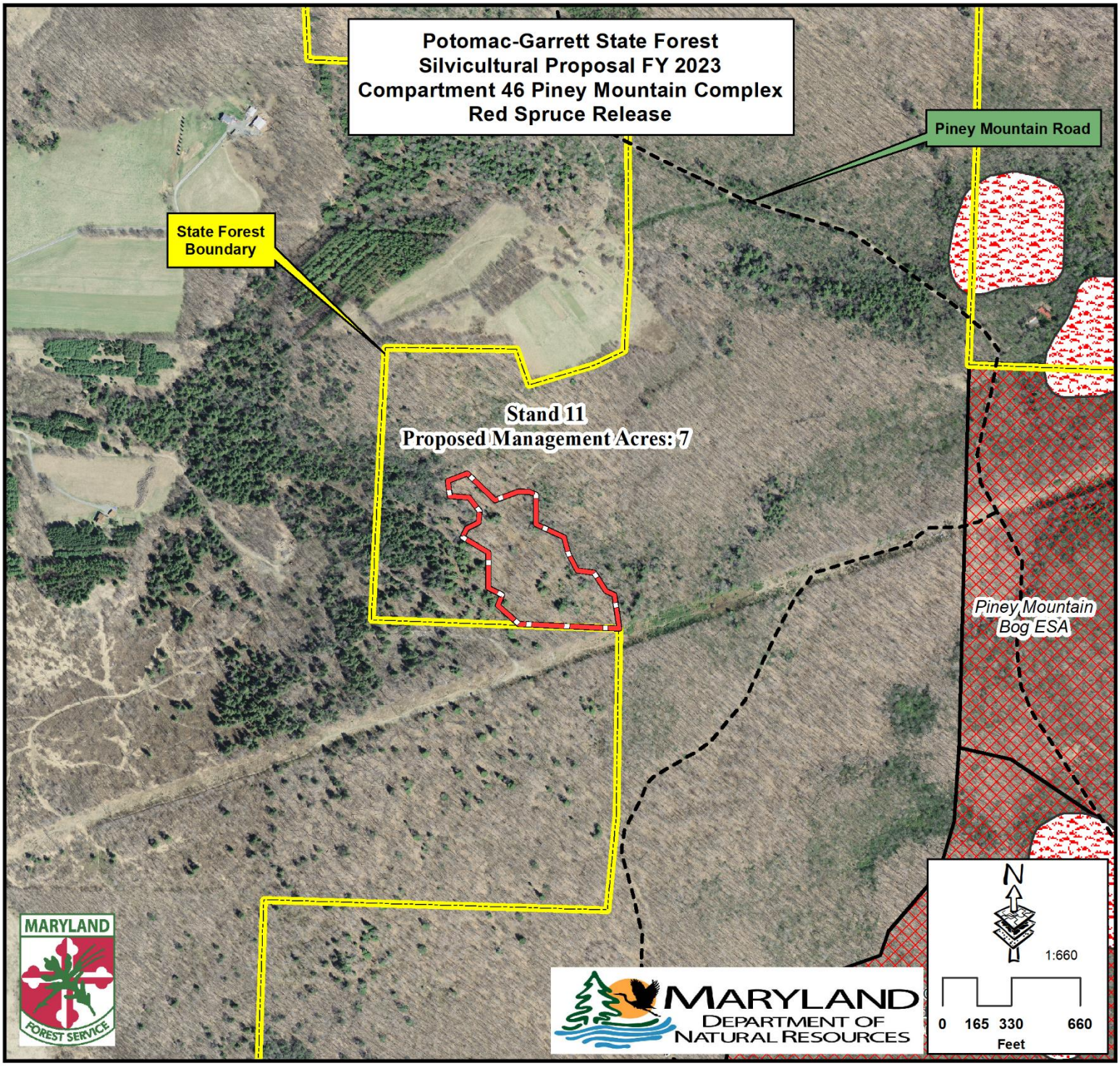
Water Resources: This stand drains northwest into Ned Run, within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF and stream buffer areas. No heavy equipment will be permitted within the protective riparian buffers of any streams or associated wetlands per the requirements set forth in the State Forest Sustainable Forest Management Plan.

Soil Resources: Underlying soil type is mapped as Dekalb and Leetonia very sandy loams, 0 to 15% slopes (DIC). These soils are moderately deep and well drained. Equipment limitations range from slight to moderate with increasing slopes. The site has fair productivity for woodland management, with a site index of 55-65 for upland oaks. The productivity of the site will be protected by minimizing the haul roads and skid trails as per the Department's Best Management Practices and rutting guidelines.

Recreational Resources: No developed recreational resources are located within this stand. Hunting is the primary recreational pursuit occurring in this area. Recreational opportunities may be disrupted for the duration of the harvest activities and access to the site may be limited depending on the timing of the operations.

Management and Silvicultural Recommendations

This proposal is located within the secondary protection boundary established for the conservation of the Cranesville Swamp as outlined in the Cranesville Swamp Site Conservation Plan, which outlines the restoration of the red spruce mixed northern hardwood upland as a high priority. Following a shelterwood harvest conducted in 2002, 1600 red spruce were planted in this stand between 2003-2006. In the years since the planting, a dense cohort of undesirable tall woody vegetation, predominantly comprised of 1"- 6" black birch poles, has overtaken the mid-canopy of the stand, and is inhibiting the growth potential of the planted spruce. Considering the inordinate number of undesirable stems within the stand, hand cutting to release the red spruce is not feasible. A contractor with a rotary cutter/mulcher will be hired to remove the unwanted vegetation in a timely manner. Project stipulations will include the use of light equipment on tracks to limit potential soil disturbance, larger trees will be hand cut and all work will occur during leaf off to limit damage to the red spruce.



- Wildlands
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- Old Growth
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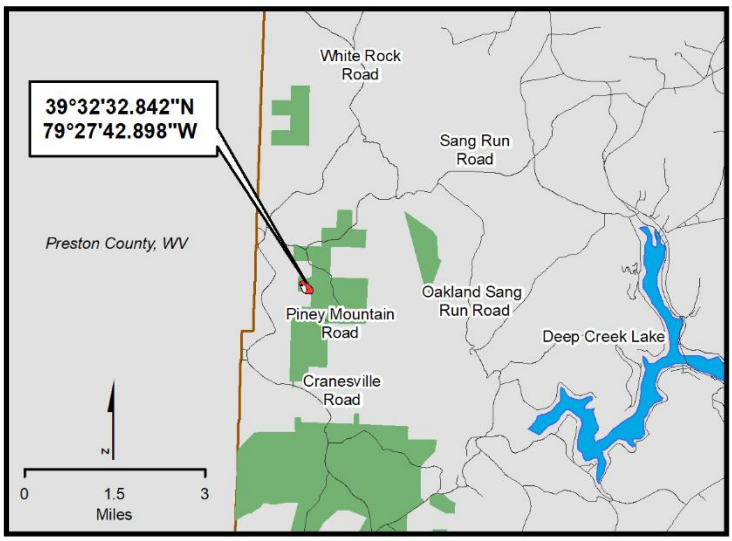

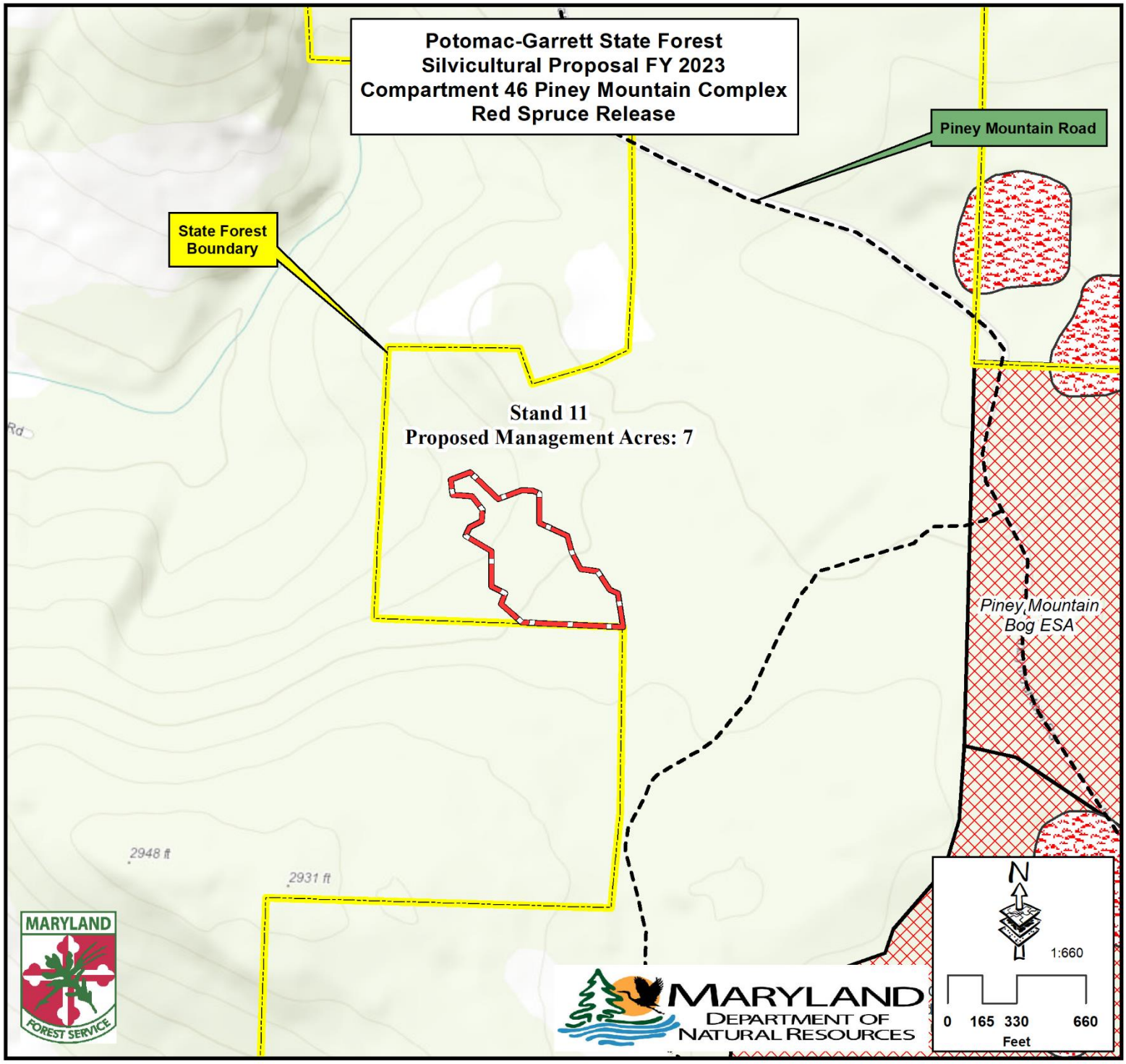

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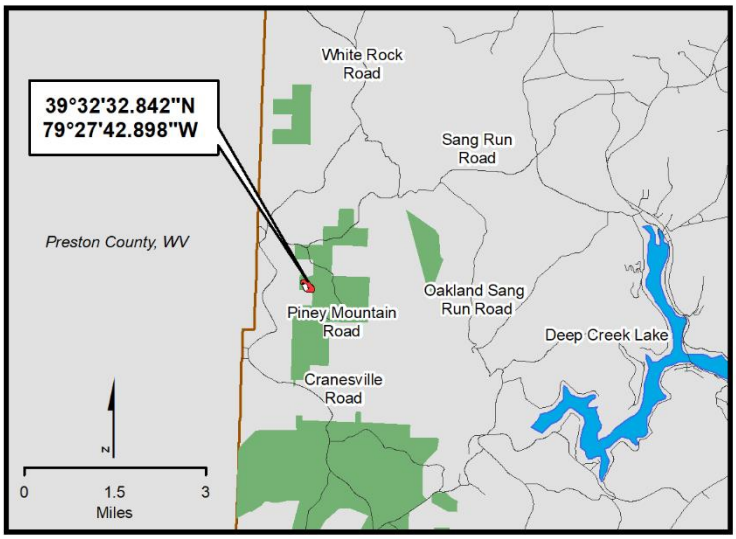

XI. Operational Management and Budget Summary

A. Introduction
B. Funding Sources
C. Operational Cost

Operational Management

A. Introduction

This section of the plan is designed to cover the annual cost and revenues associated with the operational management of Potomac-Garrett State Forest. It is the Department's intent that all revenues generated from the forest will be used to pay for the management and operation of the forest. Successful marketing in selling a mix of species and grades of wood products that the market most demands has contributed to substantial revenue generation over the years. 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 Revenues and Operational costs associated with Potomac-Garrett State Forest. 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 and the numbers below are based on the budget request submitted for FY-2022. Currently, budget trends remain unchanged, meaning that the appropriation that was available in FY-2022 will be similar for FY-2023.

B. PGSF Funding Sources

State Forests in Maryland are funded from several sources. The first source is the revenue generated by the forests. These funds are deposited in the Department of Natural Resources Forest or Park Reserve Fund and must be appropriated by the General Assembly through the annual budgeting process before being spent. 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 July 1st, the first day of the fiscal year. Revenue generated by the state forest is designated special fund revenue. There may be special funds provided from the Department of Natural Resources Forest or Park Reserve Fund that are not generated by this forest or there may be a lesser amount of special funds shown in the budget than was generated on this specific forest.

Another source of funding for the state forest is Recreational Trail Grants. These grants are competitive and are generally limited to $80,000 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 as reimbursable funds and are applied to various trail related projects as detailed in specific grant requests. Potomac-

Garrett State Forest has secured one Recreational Trail Grant in the amount of $156,176.40 for the rehabilitation of Burkholder Road.

With the passage of SB 606 in the 2018 Legislative Session, which established an Excise Titling Tax on OHV purchases for the purpose of funding maintenance and construction of ORV Trails on DNR lands, the Department has been receiving monthly deposits of approximately $40K in funding which must be used for this specific purpose. These funds will be split evenly between the Forest Service and Park Service, amounting to approximately $20K per month, or $240K (*projected*) for the current fiscal year.

C. Operational Cost: Estimated Annual Expenses - *$398,356.00*

Operational expenses are those costs paid directly out of the Potomac-Garrett State Forest operational budget. 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-2022 budget proposal was prepared in August of 2021.

▪ *Classified Salaries, Wages and Benefits: $262,876.00*

This cost is associated with Special Funds which are state tax revenues provided annually. These funds are used to pay the salaries of the Maryland classified employees responsible for the management, operation and maintenance of the State Forest.

▪ *Contractual Staffing: $63,232.00*
This cost is associated with contractual staffing associated with operations of the state forest. Contractual personnel are responsible for 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, overlooks, wildlife habitat areas and implementing all maintenance, recreational, silvicultural and ecosystem restoration projects.

▪ *Land Operation Costs: $72,248.00*
This includes expenses for office and field equipment, vehicles, gates, 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.

D. Summary

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

XII. Appendices

Appendix 1: Potomac-Garrett State Forest 10-Year Timber Harvest Summary Table

Fiscal Year	*Planned Harvest*	*Bd. Ft. Vol. Harvested*	*Gross value*
2012	**550,000 BD FT**	**534,679**	**$241,781.00**
2013	**550,000 BD FT**	**331,052**	**$176,000.00**
2014	**300,000 BD FT**	**298,221**	**$26,834.50**
2015	**552,000 BD FT**	**492,401**	**$161,910.00**
2016	**634,000 BD FT**	**542,534**	**$72,689.77**
2017	**533,000 BD FT**	**520,937**	**$275,126.44**
2018	**544,000 BD FT**	**456,517**	**$225,796.59**
2019	**488,000 BD FT**	**458,052**	**$248,487.50**
2020	**400,000 BD FT**	**539,126**	**$179,842.36**
2021	**520,000 BD FT**	**348,609**	**$113,450.00**

Appendix 2: 2021 Forest Stewardship Council Audit Action Plan

Maryland Department of Natural Resources Forest Service
2021 Audit Summary: 2021.10.13

Date of Field Evaluation: 20-22 July 2021
Locations: Savage River State Forest / Potomac Garrett State Forest

2021 Major Corrective Action Requests

2021.1 – FSC Indicator: FSC FM US 1.1.a
Corrective Action Request (or Observation):
Types of contractual documents for harvests. Of the list of types of contract templates below, 3 out of 13, those with asterisks and bolded, were found to have problems/omissions.

- 352B - Invitation to bid
- Contracts
  - 310 – Sales under 5k, **
  - 352 – Sales under 5k, Lump Sum **
  - 352-BL - Sales over 5k, Block
  - 352LS – Sales over 5k, One Step Method
  - 352N – Sales over 5k and less than 50k
  - 352WT - Sales over 5k, Weight
  - 352 – Sales over 5k, Lump Sum
- Amendment to Extend
- 352F - Amendment to allow harvesting of additional timber
- 352D – Special Conditions
- 402 – Amendment to Extend Completion Date **
- 405G – Gatewood Agreement

Specific Issues found:

- One link downloads the incorrect template - 352 – Sales under 5k, Lump Sum **
- downloads the incorrect template *This template needs to be removed from the website*
- One template does not have the corresponding "Certification template" – non-cert version is: DNR/FS-402 version 05/29/2015
- DNR/FS-310 – there is no master logger clause
- DNR/FS-352N – Clause 22: Chain of Custody – states an incorrect SFI cert code and notes that that the claim is harvested material is "FSC 100%", nullifying the SFI claim. (note template was correct)

2021 Minor Corrective Action Requests

2021.2 – FSC Indicator: FSC FM US 7.1.m
Non-Conformity Evidence
For the Savage River State Forest (SRSF) and Potomac-Garrett State Forest (PGSF) Management Plans, the sections that describe forest modeling are not consistent with

descriptions by field staff on how those are being implemented in operational planning. See SRSF 2019, Section 5.12, page 70 and PGSF 2019, Section 5.12, page 71.

Non-Conformity Corrective Action Request
DNR must ensure that FMPs are accurate and correspond to what is being implemented by forest managers such that species selections and harvest rate calculations are developed and documented. (See also C5.6).

2021.3 – FSC Indicator: FSC FM US 7.3.a

Non-Conformity Evidence
Regarding the use of DNR Forest Service templates – Forest Managers did not use the correct template when producing contracts for timber sales. When using DNR/FS-310 there is no master logger clause which is required under Operation Order 2015-601, 5. Policy: (g) Maryland Master Logger, which provides assurance DNR uses qualified loggers to implement forest management planned activities.

Non-Conformity Corrective Action Request
MD DNR must ensure that Forest Managers have sufficient guidance and supervision to implement contracts using correct versions in accordance with administrative requirements.

2021 Observations

2021.4 – FSC Indicator: FSC FM US 7.4.b

Observation Justification and/or Explanation
Although various "pieces" of the forest management plans are provided there may be opportunity to improve identification of individual forest stand across these management plan pieces. Specifically, it could be improved how Compartment and Stand Silvicultural proposals in the Annual Work Plan (AWP) link to the corresponding Timber Sale Contract #s (TS#) that are enacted. MD DNR should improve how planned and implemented stand management treatments are linked in publicly available documents.

Observation; no Corrective Action is required.

2021.5 – FSC Indicator: FSC FM US 9.2.b

Observation Justification and/or Explanation
Consultation with stakeholders was done and identified issues related to proposing new High Conservation Values (HCVs), specifically old growth and "potential" old growth for considerations as Representative Sample Areas (RSAs). Interviews with forestry staff confirm there are specific programmatic steps required to nominate new HCVs or RSAs within Maryland State Forests, which include vetting by an interdisciplinary team who together make determinations regarding State Forest HCVs and RSAs.

For example, for FSC Representative Sample Areas, which Maryland DNR terms "Ecologically Sensitive Areas (ESAs)", are identified by the **Wildlife & Heritage Service (WHS) ecologists** and flagged in the DNR GIS database. Management activities within these areas are planned in consultation with WHS ecologists to recognize, protect and, where possible, enhance the

ecological resources present in each site. Similarly, HCVFs undergo this type of review process by WHS staff.

However, the process for nominating new HCVs or RSAs could be clarified so that roles and responsibilities are better defined for the public. Stakeholders appear to have mistakenly understood that DNR forestry staff alone make these determinations and were apparently not aware of a prescribed process for nominating HCVs (See also 6.4, RSAs).

Observation; no Corrective Action is required.

Appendix 3: 2021 Sustainable Forestry Initiative Audit Action Plan

Maryland Department of Natural Resources Forest Service

2021 Audit Summary
2021.10.13

Date of Field Evaluation: 20-22 July 2021
Locations: Savage River State Forest / Potomac Garrett State Forest

2021 Minor Corrective Action Requests

1. SFI FM Std, Section 1.1.1: MINOR CAR – For the Potomac-Garrett SF (PGSF) and Savage River SF (SRSF) Forest Management Plans (FMP), the sections that describe forest modeling are not consistent with descriptions by field staff on how those are being implemented in operational planning. See SRSF – Section 5.12 - Forest Modeling, pg. 70, and PGSF – Section 5.12 - Forest Modeling, pg. 70.

2. SFI FM Std, Section 11.1.3: MINOR CAR – Staff education and training sufficient to their roles and responsibilities. During the document review, it was found that Forest managers had multiple instances of not using the most recent template for contract documents. They did not follow the system documentation / procedures as prescribed by the MD Forest Service.

2021 Major Corrective Action Requests

1. SFI Multi-site Standard, Sec. 4.1.1: MAJOR CAR, repeat issue - Templates used for Harvests are maintained by the Central Office – multiple templates available for download contained errors or omissions. 352D – Special Conditions.

Exceed the Basic Requirements

NSF also identified the following area where forestry practices and operations of Maryland DNR Forest Service exceed the basic requirements of the standard:

1. SFI 11.1.2 Assignment and understanding of roles and responsibilities for achieving *SFI 2015-2019 Forest Management Standard objectives*.

Excellent communication exists between the MD-DNR Forest Service staff and loggers. On the ground practices looked good and were consistently above average, in part resulting from the clear communications.

Appendix 4: Interdisciplinary Team Review and Comments

Maryland Department of Natural Resources - State Forests

Potomac-Garrett State Forest
FY-23 Annual Work Plan
ID Team Review

ID Team Members: Scott Campbell (PGSF), Noah Rawe (PGSF), Jason Savage (PGSF), Rick Latshaw (Wildlife), Kenny Wampler (Fisheries), Donnie Oates (MPS), George Eberling (MFS), Mike Friend (NRP), Jack Perdue (MFS), Leonard Cage (MDE) and Dan Feller (Heritage).

Overview / Discussion of FY 2023 Work Plan:
No formal ID Team review meeting was held. Members were provided electronic copies of the FY 2023 Annual Work Plan and following comments were submitted via email. A meeting with Heritage personnel was conducted on October 6, 2021, to review the two white oak timber stand improvement projects proposed within the limits of two established ESAs.

Wildlife Service: I have no issue with your proposals and offer my support for the AWP. West Virginia recently completed a GIS project to map "Priority Areas" for grouse management. One of the highest priority site criteria was forest type and Northern Hardwoods/Red Spruce were the highest priority for management. So, the proposal to manage the red spruce stand would be a high priority for grouse and is something that we would encourage. As always, thanks for the opportunity to comment.

Natural Resources Police:
Thank you for sharing the proposals. Upon review, I have no objections or concerns with any of them.

Heritage Service: As we discussed in the field this week, both proposed TSI harvests in ESA's, Compartment 43 - Stand 2 and Compartment 36, Stands 1, 5, were well planned and pose no impacts to RTE species in the surrounding areas. Thanks to you for taking the time to meet and discuss the proposed activities.

Appendix 5: Citizens Advisory Committee Review and Comments

Potomac-Garrett State Forest
Citizens Advisory Committee AWP FY-23 Review
October 26, 2021 @ 11:00am
The Citizens Advisory Committee members were provided with online access to the Draft FY-23 Annual Work Plan for review and comment prior to the meeting.

Members:
Scott Campbell, Noah Rawe, Jason Savage, George Eberling, Carl Lee, Sull McCartney, Michael Kozier, Michael Logsdon, Cheryl DeBerry, Melissa Bolyard and Eric Glotfelty.

The Potomac-Garrett Citizens Advisory Committee meeting commenced at 11:00 am in the state forest headquarters conference room. Cheryl DeBerry, from Garrett County Government was accompanied by Melissa Bolyard, who we were informed is Cheryl's successor as Cheryl has taken a new county position as the Broadband and Energy Manager in the Department of Technology and Communications. Cheryl nominated Melissa as her replacement on the committee, with Melissa auditing the meeting to determine if she would be willing to take on the commitment. To illustrate the complexity of the annual planning process, a review of the entire Draft Annual Plan was conducted. No objections to any of the proposals were noted.

Mike Kozier suggested that the Boy Scouts perform a service-learning project to build frames holding mining belts behind the targets to catch low arrows on the 3-D archery range.

Mike asked about recreation and camping numbers on the state forest since the onset of the pandemic. It was noted that camping and recreation numbers were up significantly in the last year. Mike commented that he thought hiking numbers were pointedly up, while hunting numbers seemed to be dwindling.

Inquiries were made regarding the control of the NNIS species Japanese stiltgrass and Japanese barberry. Scott Campbell reiterated that a NNIS control project will be implemented in FY23 specifically targeting Japanese barberry. Regarding Japanese stiltgrass, the species grows rampantly and currently, there is no effective means for adequately controlling it.

Mike Kozier asked about timber prices, specifically oak prices. It was noted that white oak values have peaked in the export market, making the recent harvests on PGSF highly valuable. The bumper crop of acorns, as well as the glut of all mast in the forest, was noted. This led to the topic of oak regeneration and the need for the state forest to be able to react to bumper crops of acorns to ensure that oak species remain a key component of the forest landscape.

The idea of volunteers assisting with forestry projects was broached. It was noted that previous attempts to organize volunteers for projects, including tree plantings and garbage collection have resulted in disappointing attendance, with little to no work being accomplished. While the idea looks good on paper, there are no results and the work is ultimately done by forest staff anyway.

The 2021 Certification Audit was discussed. The Forest Service successfully renewed their dual certification with the Sustainable Forestry Initiative and Forest Stewardship Council.

The status of the former Verso Lands was discussed. Mike Kozier questioned if there were any updates on the state acquiring the land. It was noted that DNR had no interest in the property at the time. This led to the discussion of current pulpwood markets and the cost of hauling pulpwood to Pennsylvania and Virginia. Timber operators in the area indicated that they can still make a profit, albeit smaller than in previous years, hauling their pulpwood to adjacent states. Mike Kozier was pleased to hear that the closure of the Luke Mill did not have a lasting impact on the local economy and people were still working.

It was noted that the committee does need new members, and it is the committee's responsibility to find those members. It was also noted that they would enjoy doing field tours at least every other year, so next year's review will try to be scheduled so that a field tour can be included. Members suggested visiting an active timber harvest or a recently completed harvest and they expressed interest in visiting Wolf Den Run State Park, which is the ORV park located adjacent to Compartments 20 and 21.

The meeting was adjourned at approximately 1:30 pm.

Appendix 6: Public Comments

XII. Literature Cited

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