SAVAGE RIVER STATE FOREST
ANNUAL WORK PLAN

FISCAL YEAR 2025

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Prepared: _____ 7/1/24
(Forest Manager) Date

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(Environmental Specialist) Date

Savage River State Forest
FY-25
Annual Work Plan

Savage River State Forest
FY-25 Annual Work Plan

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I. State Forest Overview

Savage River State Forest is approximately 55,535 acres in size and is situated in the northeastern quadrant of Garrett County in Western Maryland. It is a second growth mixed hardwood forest dominated by mixed oak species, sugar and red maple, black cherry, hickory and ash. Owing to high rainfall and certain topographic features, Savage River State Forest contains many excellent quality growing sites stocked with superior quality trees. The forest contains approximately 2,800 acres of conifer plantations that were established in the 1940's following state acquisition. Red pine is the dominant tree species within these plantations but other conifers include white pine, Norway spruce, larch, and Scotch pine. These plantations were established as nurse crops to rehabilitate abandoned and depleted farm fields, with the long-term goal of conversion back to native hardwoods as appropriate.

Savage River 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 or 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-2025 Annual Work Plan for Savage River State Forest was formulated in 2023. 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-24 Annual Work Plan for Savage River State Forest details eight land management projects that will be the focus of the State Forest management staff for FY-25. 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 Savage River 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 – the Sustainable Forest Management Plan for Savage River State

Forest was updated in June of 2023 in preparation for the 2023 dual party surveillance audit. The plan will be updated as needed before the 2024 certification audit.

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-25. To date, 100% of the data collection in harvestable stands is completed. Areas of HCVF including wildlands, ecologically significant areas, old growth, old growth ecosystem management areas and areas that preclude timber harvest operations will be inventoried secondarily to the harvestable areas. 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.

. **B. Land Management Projects Include:**

1. Continuation of the ecosystem restoration project involving control of invasive and exotic plants forest wide.

2. Continuation of the ecosystem restoration efforts involving control of invasive, exotic forest pests, particularly the Hemlock wooly adelgid.

3. 5 Silvicultural projects including:
4 Intermediate Harvests / 1 Regeneration Harvest on 274 acres.

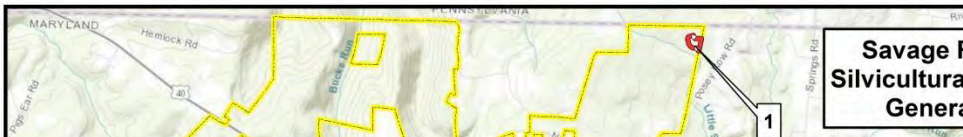
Forest harvest operations are undertaken to utilize mature and dead/dying/diseased trees; to thin overstocked stands; to improve and diversify wildlife habitat; to effectively correct public safety concerns and issues; to reduce the forests vulnerability to insect attack, disease or wildfire hazard; to facilitate certain approved research needs; to improve certain aesthetic aspects of an area; and to improve the proportions of age class and species diversity within stands and management blocks. This forest has been intensively managed 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 is enjoyed 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-25 Annual Work Plan outlines 5 harvests on 274 acres, producing a harvest of approximately 1,200,000 board feet of sawtimber and accounting for an estimated $400,000 worth of raw wood products entering local markets. Much of the silvicultural work laid out in this work plan is focused on initiating seedling development to better ensure regeneration successes in future harvests. Much of the value of the harvests in the work plan will be directed back into the forest providing the essential investment in pre-harvest cultural work that will safeguard the long term sustainable management of these important forest resources. The cultural operations and management projects outlined within the FY-25 Annual Work Plan are selected to provide significant contributions to the sustainability of forest resources found within the State Forest and the ecosystems associated with it.

III. General Location Map for FY-25 Land Management Project Proposals

Approximately 274 Acres

Map Key



1. Compartment 1 Stands 46,54,59,60,83,84,98,99	*72-Acre Hardwood Thinning*
2. Compartment 8 Stands 20 & 26	*47-Acre Hardwood Thinning / 6-Acre Hardwood Regen.*
3. Compartment 11 Stand 72	*38-Acre Hardwood Regeneration*
4. Compartment 15 Stands 15, 41, 42 & 51	*70-Acre Hardwood Thinning*
5. Compartment 20 Stands 1 & 13-17	*41-Acre Hardwood Thinning*

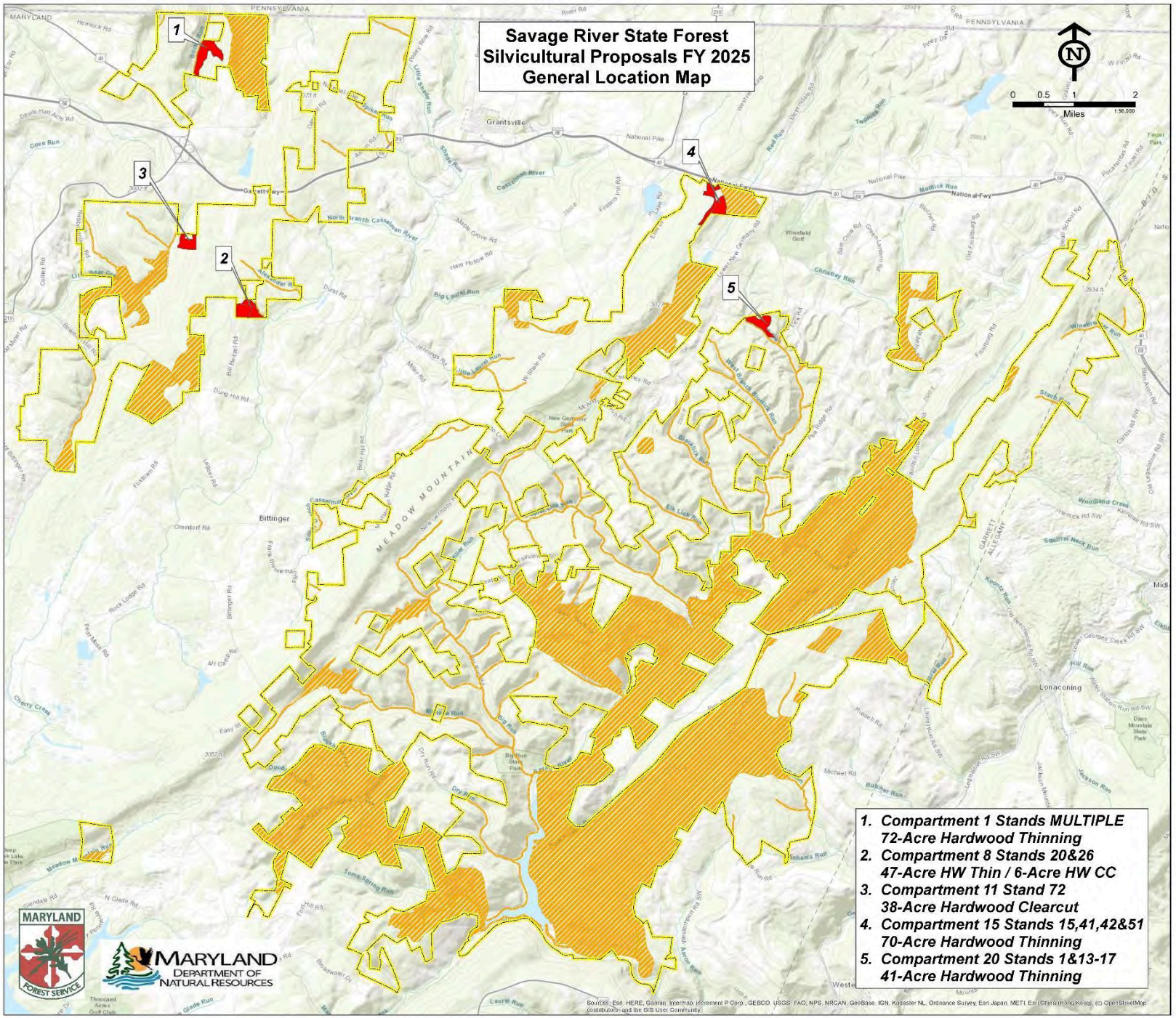


Figure 1. General location map of FY-25 silvicultural proposals

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 last seven years, broad resource assessments have been 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 have been completed on all three of the western state forests. Following the audits, draft plans and audit findings were presented to the State Forests Citizen Advisory Committees for review and comments. The Draft Sustainable Management Plans were made available for public comment fall of 2011. 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 a Corrective Action Reports (CARs) and/or observations identified as being in need of improvement in order to be "certified" as sustainably managed forest lands under the internationally recognized FSC and SFI standards. These corrective actions vary from simple formal documentation of routine practices, to more complex policy and procedure development involving various stakeholders and partners. The program requires that all of these items be addressed before the next annual audit, with some needing more immediate attention. A minor corrective action request was issued by SFI 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.

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.

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.

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 107 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.

B. Boundary Line Maintenance

Savage River State Forest currently has 336 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 60 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, a minimum of five miles of previously unpainted and/or missing boundary line are to be reestablished until the entire forest boundary is demarcated.

C. Campground Operation and Maintenance

There are 81 primitive camp sites that are maintained on a regular schedule throughout the year. Major campsite maintenance coincides with major holidays, the end of winter and at the traditional end of the camping 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. Rifle Range Maintenance and Management

There is a 100-yard shooting range on the forest that is open to the public year round located at 3250 New Germany Road. Maintenance is ongoing and includes replacing backstops as well as the backstop stands, trash clean-up, mowing and weed eating around the facility, plowing the entrance road, restocking range permits, collecting range fees and posting range closures when necessary. Prior to and during the various hunting seasons, range use increases appreciably resulting in more frequent maintenance visits. Typically, at the conclusion of spring turkey season, the backstops and stands from the previous year are replaced, depending on the severity of damage.

The shooting range is open daily from 8 a.m. to dusk and offers hunters an ideal location to sight in weapons. The range features ten stations with distances ranging from 25 to 100 yards. Hunters can pay the $5.00 daily fee at the range using envelopes provided. The annual pass costing $25 and the family pass costing $50 are available at the Forest Headquarters Office. Rules and regulations are posted at the range, with the only restrictions being no fully automatic weapons and no clay pigeons.

VI. Recreation

A. **Recreation Opportunities** (See Figure 2 p. 12)

1. Hiking, Biking and Horseback Riding Trails

Savage River State Forest has over 70 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 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. Trail guides featuring a topographic map and trail descriptions can be purchased at the forest headquarters.

2. Off Road Vehicles

Snowmobile and off-road vehicle operators can enjoy many miles of scenic trail along the Meadow Mountain Trail, East Shale Road, Margraff Plantation, Negro Mountain Trail and the newly constructed St. John's Rock ORV Trail. Unlike the aforementioned trails, the St. John's Rock ORV Trail is the first trail on Department lands ever designed specifically for ORV enthusiasts. Features include a multi-site primitive campground designed to support ORV riders, children's riding trails within the campground, technical spur loops and hare scramble style trail sections for all terrain vehicles and motorcycles, a full-size rock crawl area for jeeps and four-wheel drive vehicles and miles of forest access roads for all purpose riding opportunities. The total trail system is approximately 13 miles in length with varying challenges for riders of all skill levels. The trail officially opened to the public on July 23, 2017. Usage statistics for the second year of operation can be found in Appendix 1.

Be sure to display a current Department of Natural Resources ORV permit, available at the forest headquarters or online at www.dnr.maryland.gov.

3. Hunting

Hunting is permitted throughout the forest except where posted with safety zone signs. The 55,000 acres of Savage River State Forest includes two state park areas (New Germany and Big Run) 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 land owner. Parking is permitted along roadways as long as traffic is not blocked. Hunters must have a valid Maryland Hunting License and should refer to the current Hunting & Trapping guide 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. A copy of the road-opening schedule is available in the Forest Headquarters Office. 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. Handicapped hunter access roads are also available. More details about handicapped accessibility appear in this brochure and on the current road-opening schedule.

*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 Savage River 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 Savage River Reservoir including walleye, large-mouth bass, smallmouth bass, yellow perch, bluegill and several trout species. Anglers with a trout stamp can fish the Savage River for wild brook trout and stocked brown and rainbow trout. Tributaries of the Savage River, including Middle Fork, Poplar Lick and Blue Lick to name a few, provide a unique backcountry fishing experience for native brook trout that is unsurpassed in the region. The majority of the Savage River watershed is within the Zero Creel Limit Area for brook trout and can only be fished with artificial flies and lures. 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. Boating/Paddling

The Savage River Reservoir provides excellent boating and paddling opportunities. Three public boat launches offer convenient access at Dry Run Road, Big Run State Park and ¼ mile north of the dam breast on Savage River Road. Gasoline engines are prohibited on the reservoir. Recreational whitewater releases occur periodically throughout the year on Savage River below the dam that are sponsored and coordinated by the Upper Potomac River Commission, Savage River State Forest, Garrett College Adventuresports Institute, Verso-Luke Mill and several commercial boating outfitters. The events are at no cost to the participants, but donations are accepted to cover the cost of shuttle services and on site restroom facilities.

7. Winter Recreation

Cross-country skiers and snowshoers of all abilities can enjoy a winter wonderland on the New Germany and Mount Aetna trails. The Asa Durst Trails are recommended for a backcountry snowshoe experience. Snowshoers must be careful to walk beside and not on cross-country tracks as it disrupts them.

8. Geocaching

Currently, 28 goecaches are located throughout Savage River State Forest for those interested in testing their navigational and tracking skills. All geocaches must 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.

9. Maps

Brochures and maps are available at the Savage River State Forest Headquarters Office located at 127 Headquarters Lane, Grantsville, Maryland 21536.

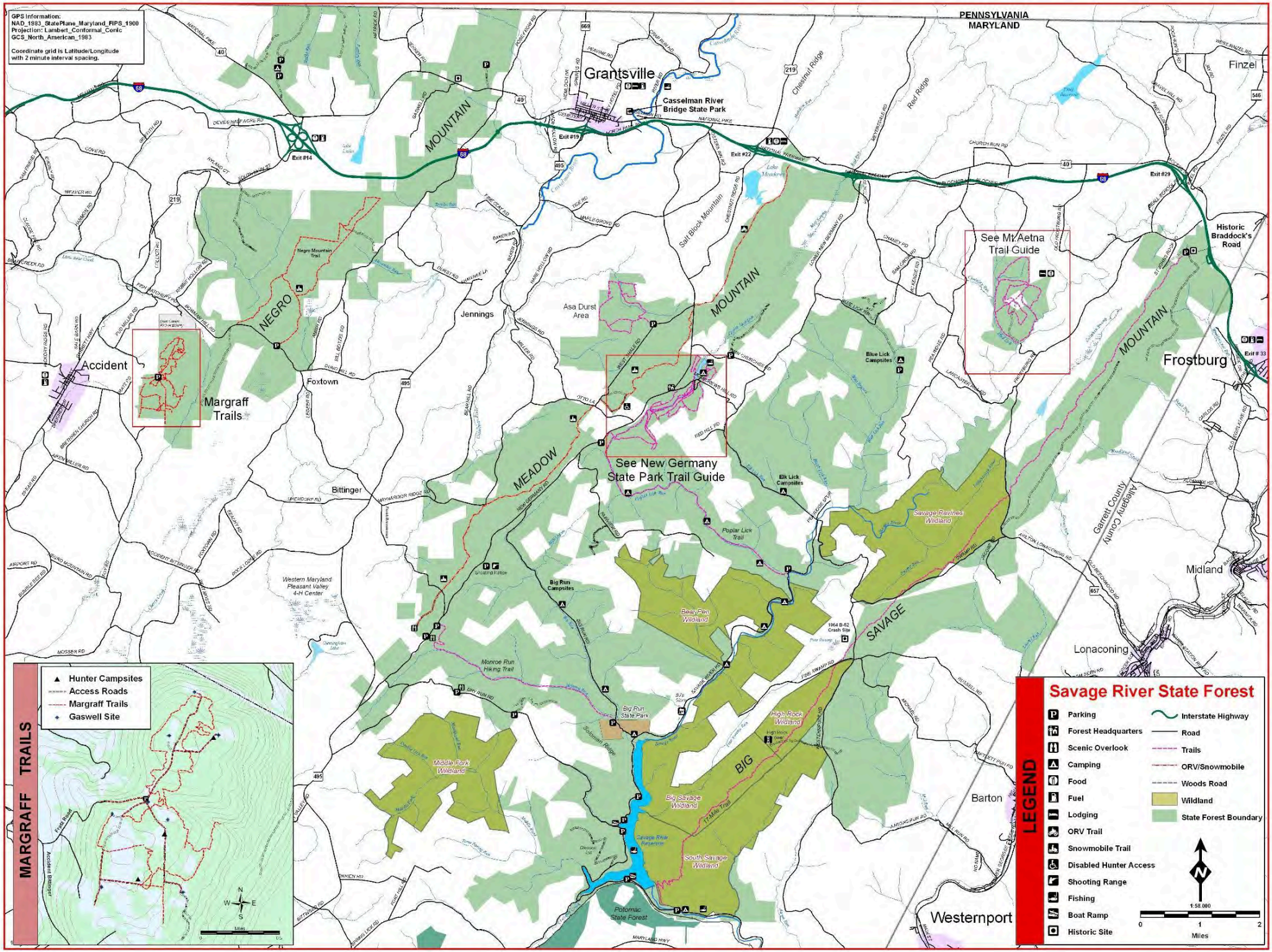


Figure 2. Recreational Opportunities on Savage River State Forest

B. Recreation Proposals

1. St. John's Rock Trail Expansion

Components 2 & 3 of the FY24 St. John's Rock Trail Expansion proposals remained in the finalized work plan. These projects are currently being evaluated for logistics and feasibility with Component #2 – Widening and improvements to the current trails being the priority consideration before any expansion plans are considered.

Component #2 Maps and Photos:

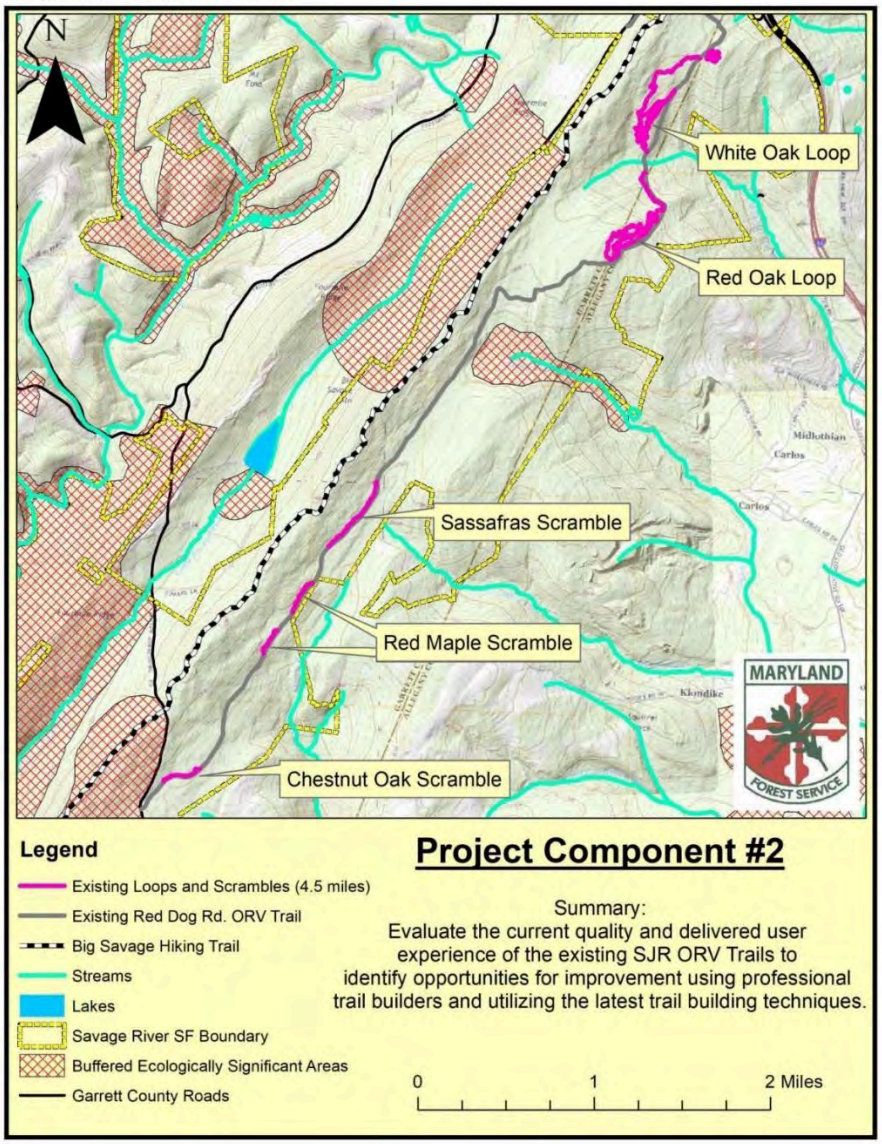


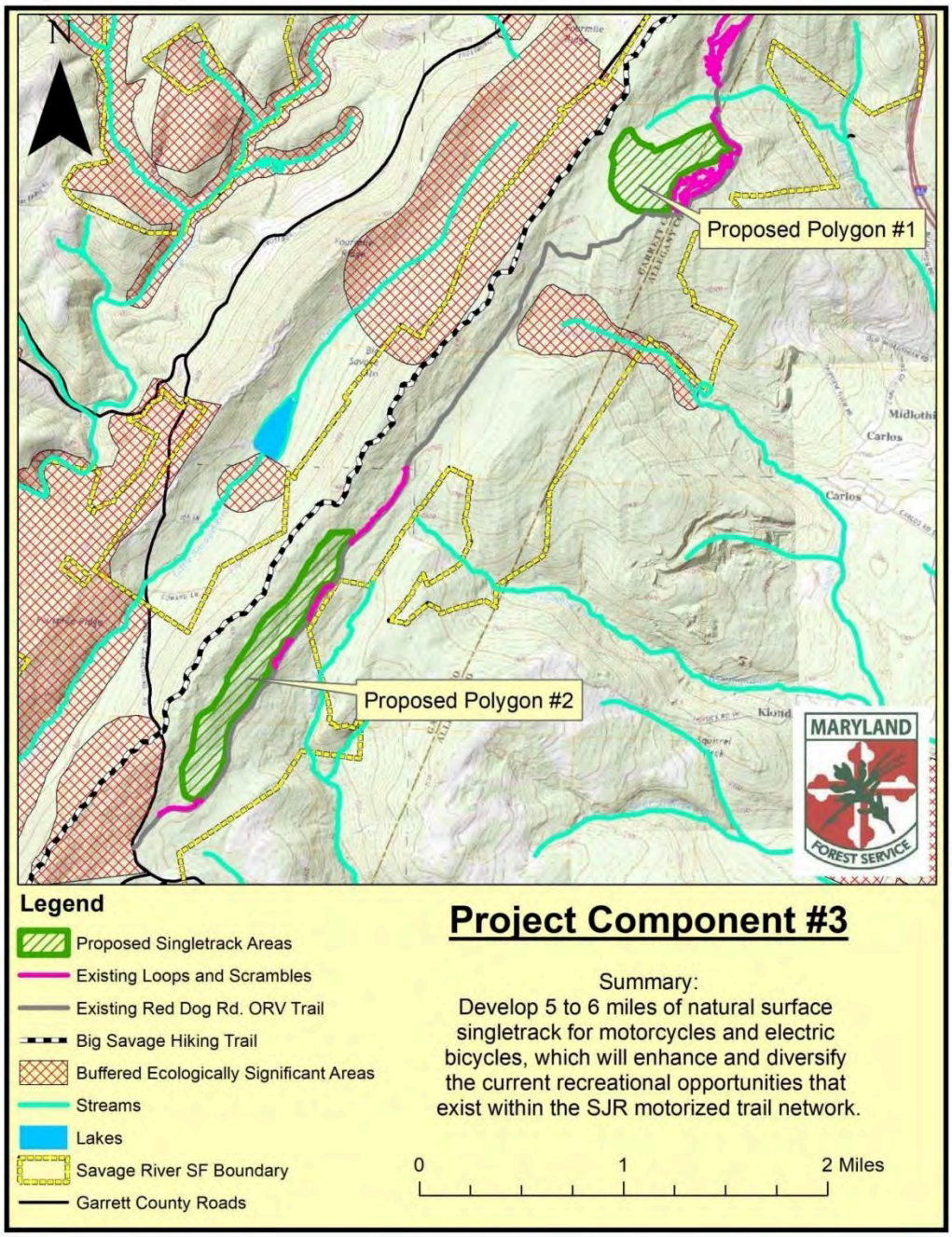
Photo: original SJR trail example

Photo: original SJR trail example

Photo: new SJR trail example

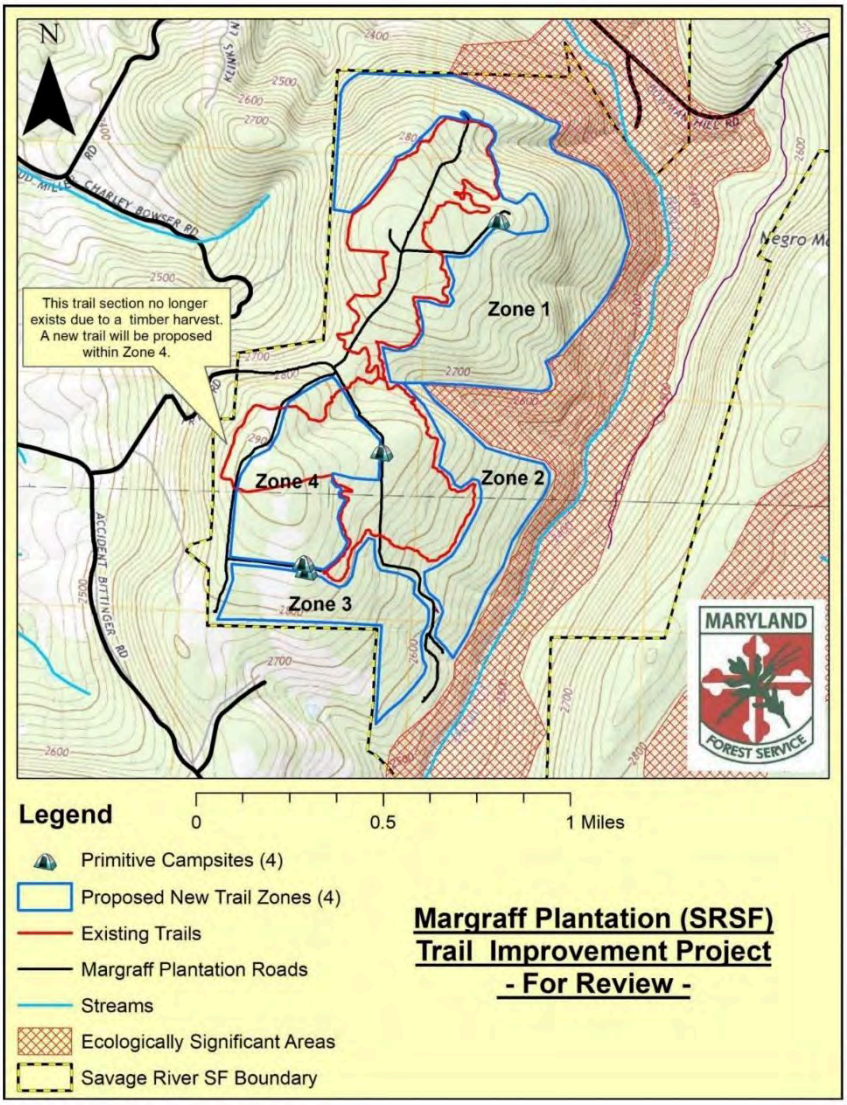
Photo: new SJR trail example

Component #3 Map:



2. Margraff Plantation Trail Expansion

The Margraff Plantation trail project concept that was included in the FY24 Savage River State Forest AWP was approved and has moved into the planning phase with a professional trail contractor. A site visit was held in the fall of 2023 to assess the existing trails and to field review areas that may support new construction of sustainable natural surface trails. Additional project review and permitting will be required once the design phase has been completed. It is anticipated that construction will begin in FY25.



3. Trail Maintenance Grant – Appalachian Conservation Corps

A trail maintenance specific grant has been awarded to the Maryland Forest Service through Recreation Trail Program (RTP) funding. These funds, administered by the Maryland Department of Transportation (MDOT) State Highways Administration (SHA), will be used to deploy a multi-year (3) programmatic approach to non-motorized trail maintenance in the Western Region State Forests (Green Ridge, Savage River, Potomac Garrett).

The trail maintenance tasks will be accomplished by a 6-8 person AmeriCorps certified saw crew and/or a trail crew. We anticipate logging 1,280 - 1600 labor hours per year in each State Forest

and a total of approximately 4,480 labor hours within the Western Region over the term of this grant. No new trails will be constructed as part of this project. All of the work will be conducted on existing trails and on land owned and managed by the Maryland Department of Natural Resources.

4. Savage River State Forest Shooting Range

Critical Maintenance funding has been allocated to renovate the shooting range in FY25. Survey work and initial site visit and planning occurred Fall 2023 with hopes to put the project out for bids in the Spring of 2025.

$300K Allotment
Renovate shooting pavilion
- New metal roof
- Replace siding and gutters

Minor electrical work
Ballistic panels in storage room
ADA compliance
Parking
Concrete sidewalk behind shooting pavilion
2 additional walkways out to the target area – one ADA accessible with mobi-mat
Concrete pad for portapot
Disposal of large shed
Realign parking lot with parking bumpers
Adjust fence so it's not beyond shooting line
Minor grading and resurface with gravel

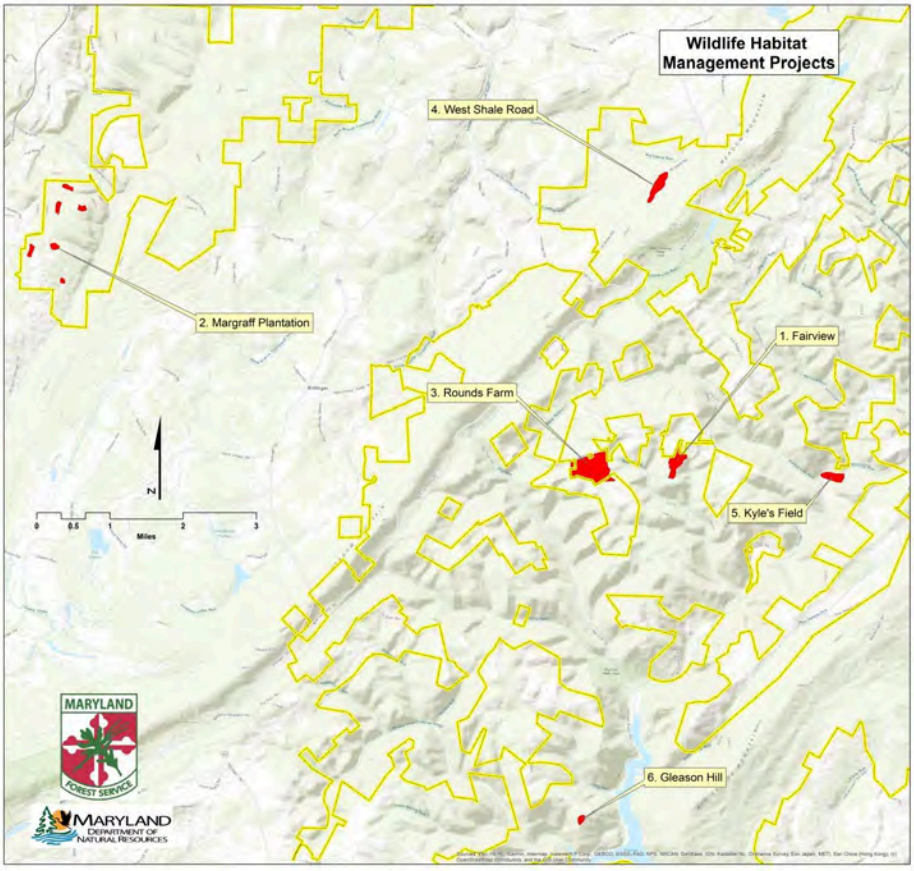
VII. Wildlife Habitat Management Projects

A. General Wildlife Habitat Maintenance

Approximately 38.5 acres of wildlife specific projects have been implemented throughout the state forest. These projects are located in the Margraff tract of Compartment 14 east of Accident, MD, the Nature Conservancy acquisition of Fairview Road, the "Rounds Farm" located off Pea Patch Road, West Shale Road, "Kyle's Field" off Savage River Road and Gleason Hill. General practices include liming and fertilizing as well as planting of cover and grain crops, where appropriate. Plantings include millet, peas, corn, turnips (*Brassica spp*.),

warm season grasses, native wildflowers and clover (See Wildlife Habitat Management Projects map and summary, p. 14).

As part of the Mentored Hunt Program, a stocked pheasant hunt will take place on the Horse Farm property, West Shale Wildlife Area and Margraff Plantation in late November. This is a do-it-yourself hunting opportunity for junior license holders, apprentice license holders and lapsed hunters. A random lottery drawing will take place and all successful applicants will receive a packet of information with maps and other helpful information. More information is also available on the Maryland DNR Wildlife and Heritage Service web page: http://dnr.maryland.gov/wildlife/Pages/ hunt_trap/Mentored-Hunt-Program.aspx.



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. Species-specific management plans have been developed for two notable species including Japanese knotweed and Yellow Archangel (See Appendix 2 and 3).

The State Forest staff has treated and/or is monitoring several plant colonies or sites including: five tree-of-heaven sites, ten Japanese knotweed sites, two mile-a-minute weed sites and one yellow archangel site (See corresponding map for locations).

1. Japanese knotweed (*Fallopia japonica*). Several areas of Savage River State Forest have become infested with the invasive plant Japanese knotweed (*Fallopia japonica*). Seven treatment areas have been delineated and six of them 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. Knotweed growth below the Savage River Reservoir has reached a critical level and will not be treated at this time due to the overwhelming investment that would be required to reach any reasonable level of control. As more effective treatment methods become available for large areas, this area will be reevaluated in regard to implementing a control plan.

The initial treatments occurred in the first week of June, 2011. 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.

2. Yellow archangel (*Lamiastrum galeobdolon).* Dry Run, a tributary of the Savage River and Savage River Reservoir has been infested with the aggressively growing, non-native invasive perennial, yellow archangel (*Lamiastrum galeobdolon).* The infestation of the area most likely originated from a private residence which was abandoned and the once maintained yard area was neglected, allowing the plant to escape to the adjacent property. After establishing a colony at the head of the watershed, the plant quickly enveloped the drainage from the private residence to the high water mark of the Savage River Reservoir, encompassing nearly 15 acres of forest land.

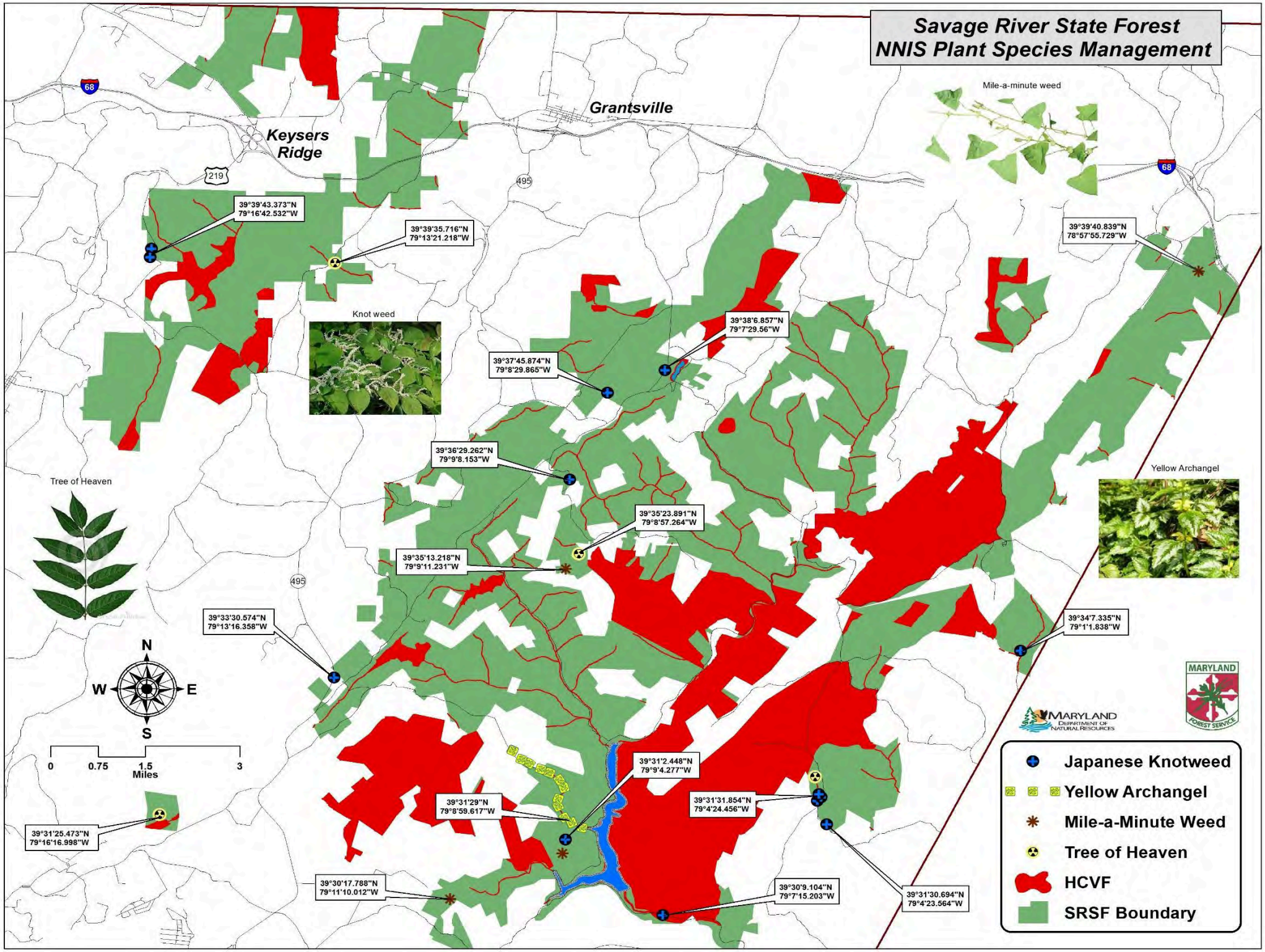
The plant grows quickly and out-competes native vegetation for resources. Yellow archangel spreads in several ways; by seed, by stem fragments, and by rooting at the nodes of the

stem. This makes the plant very difficult to control and requires multiple applications of herbicide and diligent monitoring to limit the spread of the plant in natural forest environments. There is no projected end date for the herbicide treatments due to the persistent nature of this plant and efforts will be made annually until the spread of the plant is contained or the plant is eradicated. Recent late season snowfalls and above average rainfall have limited any attempts to control the species. Successful eradication of this plant is anticipated given the relatively confined area of infestation. Site monitoring will continue after the eradication of the plant for at least 5 years.

3. Mile-a-Minute Weed (*Persicaria perfoliata*) A small patch of mile-a-minute weed (*Persicaria perfoliata*), another aggressive non-native invasive, was discovered in Compartment 29A. The area was treated in FY 19 with a 2% glyphosate solution, but a field survey revealed that the initial treatment was unsuccessful. Herbicide treatment of triclopyr was applied for two consecutive years and monitoring of the site will continue into FY 20 and beyond until the plant has been eradicated. A previously discovered patch of mile-a-minute weed in Compartment 38 near the St. Johns Rock ORV Trail that was seemingly removed during the excavation for the trail campground reemerged and has been treated. Monitoring of the area will continue and the site will be treated as necessary in order to eradicate this plant from the site.

4. Tree-of-Heaven (*Ailanthus altissima*) Individual stems of the exotic invasive tree-of-heaven have been identified in several 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.

Savage River State Forest
NNIS Plant Species Management



IX. Monitoring and Research Projects

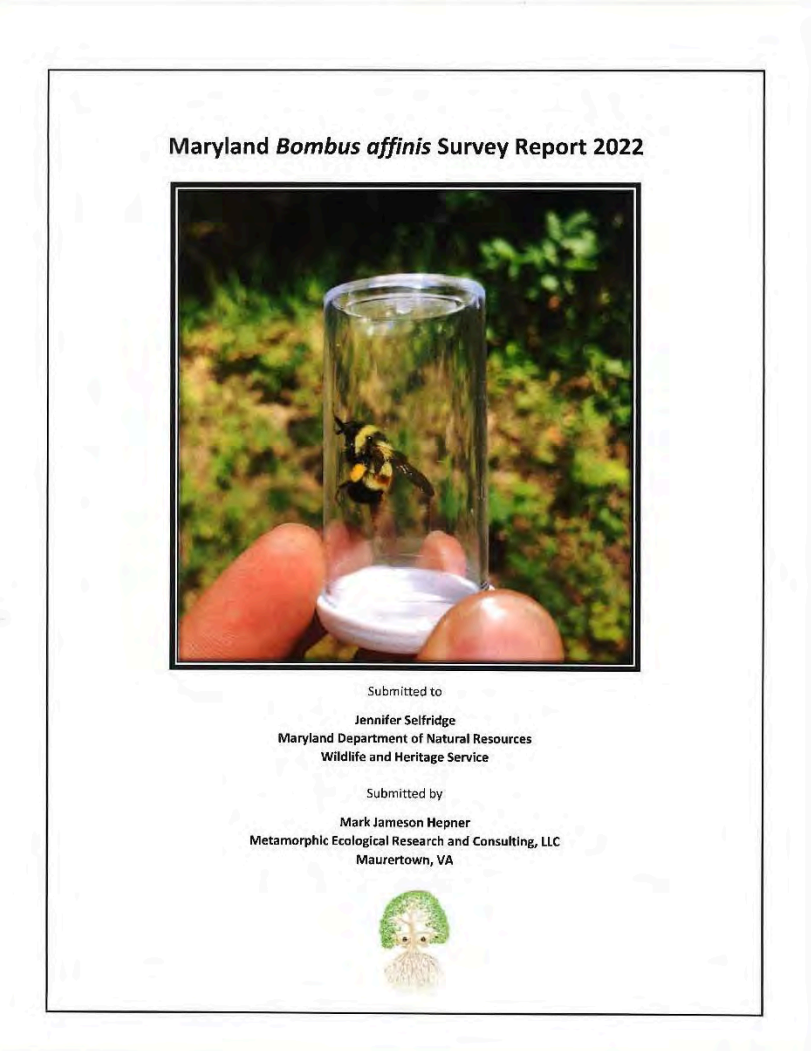
A. Monitoring

1. *Silvicultural Activities*

All silvicultural operations taking place on Savage River 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. Rusty-patched Bumblebee (Bombus affinis) surveys – continuation from 2022/2023



Maryland *Bombus affinis* Survey Report 2022

Submitted to

Jennifer Selfridge
Maryland Department of Natural Resources
Wildlife and Heritage Service

Submitted by

Mark Jameson Hepner
Metamorphic Ecological Research and Consulting, LLC
Maurertown, VA

Introduction

The rusty patched bumble bee (*Bombus affinis*) (RPBB), an endangered species, was once a common species throughout the northeast including Maryland but last seen in the State in 2002. In the spring of 2022, the Maryland Department of Natural Resources requested a RPBB survey within the State. Metamorphic Ecological Research and Consulting, LLC ecologist Mark Hepner, a U.S. Fish and Wildlife Service (USFWS) RPBB recovery permit holder and regional species expert, identified areas of the State with the highest likelihood of finding RPBB and are listed in Table 1. The areas are located in Garrett County in the western mountains of Maryland and surrounding the North Branch Potomac River and Savage River drainages and tributaries.

Survey Locations

Surveys were composed of visually inspecting areas with the highest likelihood of RPBB, to find RPBB was the goal of this effort. The Savage River State Forest (SRSF), Potomac State Forest (PSF), Big Run State Park (BRSP), and Wolf Den State Park (WDSP) were areas identified via aerial imagery and topographic mapping as the highest likelihood of RPBB, Table 1 and Table 2. The Maryland *Bombus affinis* Survey Map indicates where surveys were completed and also provided as a KMZ file send via email, Attachment 1. Representative photographs of habitat surveyed are provided in Attachment 4.

Table 1. Maryland State Forests and Maryland State Parks where rusty patched bumble bee surveys took place in 2022.

Potomac State Forest	**Savage River State Forest**	**Big Run State Park**	**Wolf Den Run State Park**
Lost Land Run Road	Savage River Road	Big Run Road	Huckleberry Rocks Area
Wallman Road	Big Run Road		Potomac River Area
Laurel Run Road	Dry Run Road		North Hill Area
North Branch Potomac River	Spring Lick Road		
	Westernport Road		
	Savage Ravines		

Table 2. Locations where rusty patched bumble bee surveys took place in 2022. Numbers correspond to locations on Maryland *Bombus affinis* Survey Map in Attachment 1.

Number	Location	Latitude	Longitude
1	SRSF Westernport Road	39.61150	-79.10666
2	SRSF Savage River Road Poweline	39.58334	-79.09108
3	SRSF Spring Lick Road	39.49649	-79.18463
4	SRSF Poplar Lick Field	39.58657	-79.09163
5	SRSF Maryland Highway 135	39.46225	-79.19260
6	SRSF Little Savage River Powerline	39.59500	-79.04000
7	SRSF Blue Lick Road	39.64976	-79.06506
8	SRSF Blue Lick Run Road	39.64381	-79.06237
9	SRSF Fairview Road Powerline	39.59809	-79.15115
10	SRSF New Germany Road Pollinator Planting	39.55091	-79.22527
11	PSF Laurel Run Road	39.34804	-79.28660
12	PSF Wallman Road	39.30864	-79.28614
13	PSF Lost Land Run Road Wetlands	39.38117	-79.27457
14	PSF Lost Land Run Road North Branch Potomac River	39.36462	-79.23190
15	WDSP Huckleberry Rocks	39.38564	-79.25299
16	WDSP Potomac River	39.37271	-79.21045

Bumble Bees Encountered

There were 10 bumble bee (*Bombus*) species seen during the 2022 surveys, Table 3. Photographs of each bumble bee species and caste encountered during the survey are provided in Attachment 3. The RPBB and yellow banded bumble bee (*B. terricola*) (YBBB) were found during the 2022 survey, Table 4 and Attachment 2. The RPBB was found at two locations within the PSF, Attachment 5. These records represent the first RPBB found in Maryland in 20 years. The YBBB was found at three locations within the SRSF, including two locations within the same area. These records are the first YBBB to be found in Maryland in 10 years.

Table 3. Bumble bee species that were encountered during the 2022 rusty patched bumble bee survey.

Common Name	Scientific Name
Brown-belted bumble bee	*Bombus griseocollis*
Two-spotted bumble bee	*Bombus bimaculatus*
Half-black bumble bee/Sanderson's bumble bee	*Bombus vagans/Bombus sandersoni*
Sanderson's bumble bee/Half-black bumble bee	*Bombus sandersoni/Bombus vagans*
Rusty patched bumble bee	*Bombus affinis*
Yellow banded bumble bee	*Bombus terricola*
Fernald cuckoo bumble bee	*Bombus flavidus*
Eastern common bumble bee	*Bombus impatiens*
Confusing bumble bee	*Bombus perplexus*
Northern golden bumble bee	*Bombus fervidus*

Table 4. Rusty patched bumble bee and yellow banded bumble bee location and floral resource data. Numbers correspond to locations on Maryland *Bombus affinis* / *Bombus terricola* Map in Attachment 2.

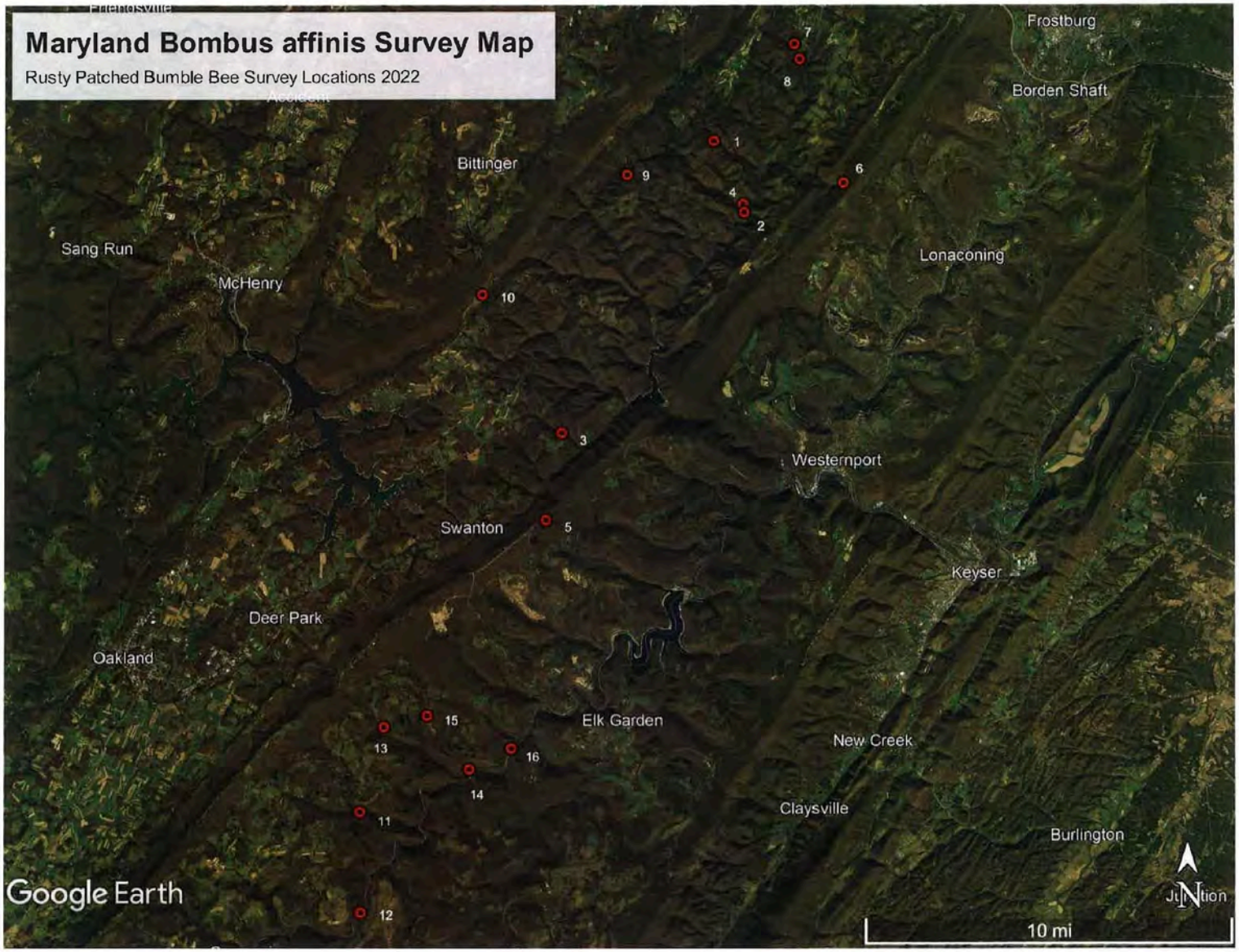
Number	Common Name	Scientific Name	Caste	Floral Resource	Latitude	Longitude
1	Rusty patched bumble bee	*Bombus affinis*	Worker	Black Cohosh (*Actium racemosa*)	39.32845	-79.27554
2	Rusty patched bumble bee	*Bombus affinis*	Worker	Hollow Joe-pye weed (*Eutrochium fistulosum*)	39.31255	-79.28397
3	Yellow banded bumble bee	*Bombus terricola*	Worker	Wild Hydrangea (*Hydrangea arborescens*)	39.61125	-79.10582
4	Yellow banded bumble bee	*Bombus terricola*	Worker	Wild Hydrangea (*Hydrangea arborescens*)	39.61150	-79.10666
5	Yellow banded bumble bee	*Bombus terricola*	Male	Sunflower species (*Helianthus* sp.)	39.46225	-79.19260

Future Surveys

The finding of RPBB in Maryland within the PSF is encouraging for the species continued existence in the Appalachian region and represents the northern extent of the species currently known range. The fact that they were using two different floral resources is a good indication that the Maryland population is still a generalist. Future surveys should include a more intense survey of floral bloom availability throughout the season (March-September) in areas of the PSF and along the North Branch Potomac River (NFPR). Areas that should be investigated during May-July include forested slopes with blueberry/huckleberry (*Vaccinium* sp.), mountain laurel (*Kalmia latifolia*), Rhododendron (*Rhododendron maximum*), and wild hydrangea (*Hydrangea arborescens*). Riparian areas including mid-channel islands along the NFPR and seepy slopes along forest roads should be investigated in July-September. Upland forest and early successional areas should be investigated March-September to determine bloom availability throughout the season. The RPBB likely uses areas differently throughout the season and therefore should be checked for bloom availability as the season progresses. The SRSF has the potential to have RPBB due to the close proximity to known populations and similar bloom and landscape features to areas where they have been found. Maryland is on the northern edge of RPBB known range in the Appalachian region, so there is opportunity for understanding why they occur in areas and do not in other areas. The WDSP has the potential to have RPBB given its proximity to the PSF and similar bloom and landscape features. The WDSP and BRSP have the opportunity for floral resource restoration through plantings and management practices (change in mowing regime).

Summary

The 2022 survey of Maryland for RPBB was successful at locating two RPBB, both workers located on the PSF. The survey also located three YBB on the SRSF. A total of 10 bumble bee species were identified during the survey. The topography, aspects, and bloom along the NBPR and associated drainages and uplands are areas where further investigation for RPBB should be focused. These areas likely provide nesting and over-wintering habitat in addition to foraging habitat discovered in 2022. The SRSF seems to be on the northern edge of the Appalachian range of RPBB and therefore warrants future surveys to determine if the RPBB is present and if not, why is this location not have RPBB. The success of locating RPBB in Maryland in 2022 is encouraging for the species continued existence in the Appalachian region and indicates that Maryland will play an important role in the recovery of RPBB.


Maryland Bombus affinis Survey Map
Rusty Patched Bumble Bee Survey Locations 2022
Frostburg
Borden Shaft
Bittinger
Sang Run
McHenry
Lonaconing
Westernport
Swanton
Keyser
Deer Park
Oakland
Elk Garden
New Creek
Claysville
Burlington
1
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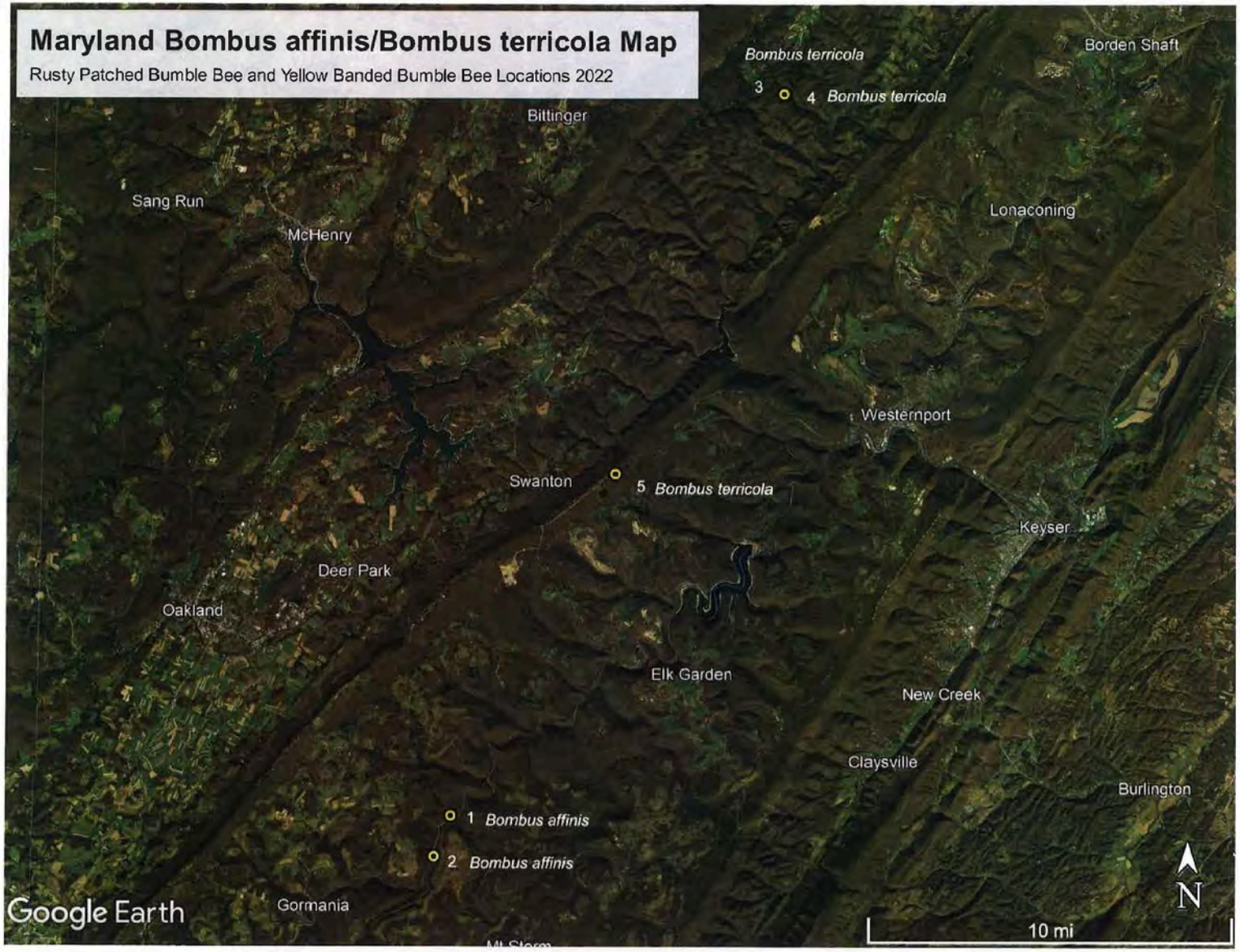

Maryland Bombus affinis/Bombus terricola Map
Rusty Patched Bumble Bee and Yellow Banded Bumble Bee Locations 2022
Bombus terricola
Borden Shaft
3
4 Bombus terricola
Bittinger
Sang Run
McHenry
Lonaconing
Westernport
Swanton
5 Bombus terricola
Keyser
Deer Park
Oakland
Elk Garden
New Creek
Claysville
Burlington
1 Bombus affinis
2 Bombus affinis
Google Earth
Gormania
N
10 mi

2. Timber Tracking: Genetics for Forest Health
Principal Investigator:
Jessica Eggers

Project timeline: May 1 - December 31, 2023

Project partners:
Richard Cronn, US Forest Service (*Liriodendron tulipifera),*

Summary:
The goal of this project is to collect range-wide sample collections for tulip tree (*Liriodendron tulipifera)*. We estimate up to 400 volunteers for tulip poplar across 27 states collecting leaves, flowers, twigs, and tree cores (if allowed). Tulip poplar tissue is analyzed for genetic and chemical profiles for evaluating timber legality and sustainability.

Collections:
We will collect tissue samples from tulip tree (*Liriodendron tulipifera*) trees in State Forests and Parks throughout Maryland. From each tree, we will collect 2 leaves and 1-2 terminal stems (4" long). If no leaves are accessible from branches, we may instead collect green leaves or a single flower from the forest floor. We would collect these samples from up to 4 trees in each park and forest (although in Green Ridge and Savage River State Forests we would like to sample up to 6 trees). We would also like to collect a 6" wood core from no more than 2 trees across all permitted lands.

Locations:
We would like to sample trees in the following State Parks and Forests:

Big Run SP	Garrett SF	Palmer SP	St. Inigoes SF
Calvert Cliffs SP	Gathland SP	Patapsco Valley SP	St. Mary's River SP
Cedarville SF	Green Ridge SF	Patuxent River SP	Susquehanna SP
Chapel Point SP	Greenbrier SP	Point Lookout SP	Swallow Falls SP
Chapman SP	Greenwell SP	Potomac SF	Tuckahoe SP
Chesapeake SF	Gunpowder Falls SP	Rocks SP	Washington Monument SP
Cunningham Falls SP	Pleasure Islands SP	Rocky Gap SP	Wicomico Demonstration SF
Dans Mountain SP	Herrington Manor SP	Rosaryville SP	Wills Mountain SP
Deep Creek Lake SP	Janes Island SP	Salem SF	
Elk Neck SF	Martinak SP	Sandy Point SP	
Elk Neck SP	Milburn Landing SP	Savage River SF	
Fort Frederick SP	New Germany SP	Seneca Creek SP	
Franklin Point SP	New Towne Neck SP	Shad Landing SP	

Gambrill SP	North Point SP	South Mountain SP	

Background:

Tulip poplar (*Liriodendron tulipifera)* was the third most exported species of hardwood from the U.S. in 2020, accounting for nearly 15% of total exports (Luppod and Bumgardner, 2022). It is widely used domestically and is becoming popular in Europe and China as a replacement to light tropical hardwoods sourced from areas vulnerable to destructive logging and loss of valuable biodiversity (UNECE, 2011). Because *Liriodendron tulipifera* is fast-growing with a short harvest cycle (as little as 15-20 years), versatile, and economically viable, it has a high potential to replace tropical hardwood through sustainability-based market drivers.

In order to support market shifts (e.g. via EU sustainability laws) away from illegal and unsustainable legal timber, well-tested analytical methodologies and techniques that rely on comprehensive, range-wide reference data are necessary for independent verification of species and origin (Low et al., 2022). Low et al. (2022) also identify key research opportunities to improve global timber tracking, that include increased sampling across taxa and species distributions, and the integration of methods in a nuanced approach for species and origin identification.

The *Timber Tracking* project will collect the required density of *Liriodendron tulipifera* samples across the species range to produce genetic and chemical reference datasets for use in locating tree source origin within tens of kilometers. These reference datasets can be used to pioneer integrative methods to independently evaluate timber sustainability applicable to other species and vulnerable regions.

Study design

Adventure Scientists' volunteers will conduct data collection of *Liriodendron tulipifera* to fill the existing data gaps and allow for fine scale, population-level provenance to be determined. We will achieve this through an opportunistic sampling scheme that aims to collect samples from 400 and 800 trees across public lands in each of the 27 states spanning the species' native range as defined by Little, 1971 (see Figure 1).

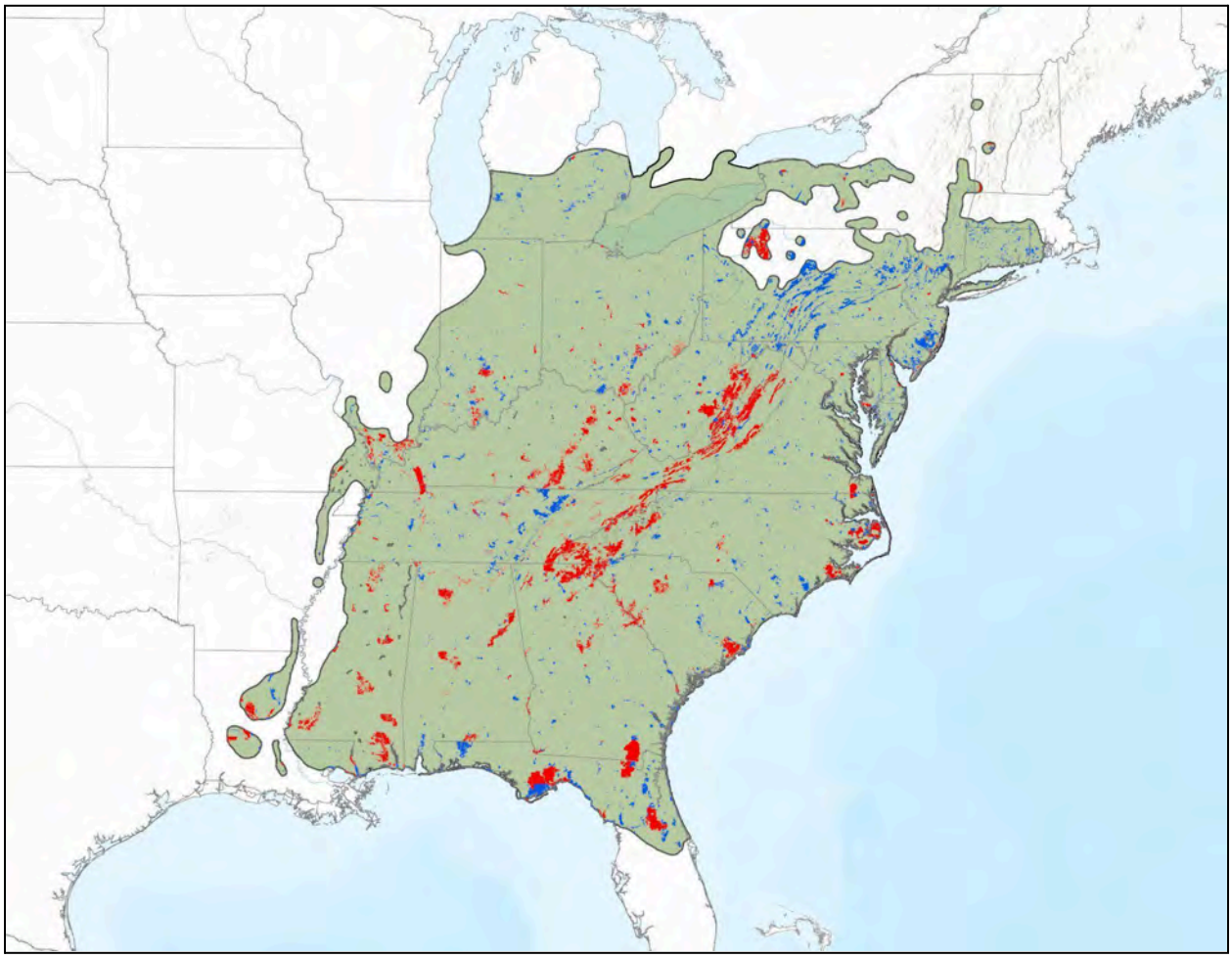


Figure 1. Historic range of *Liriodendron tulipifera* in green (Little, 1971) and the distribution of federal (red) and state (blue) lands that may be sought for sampling permits

The minimum and maximum targets for each state are provided in **Figure 2.**

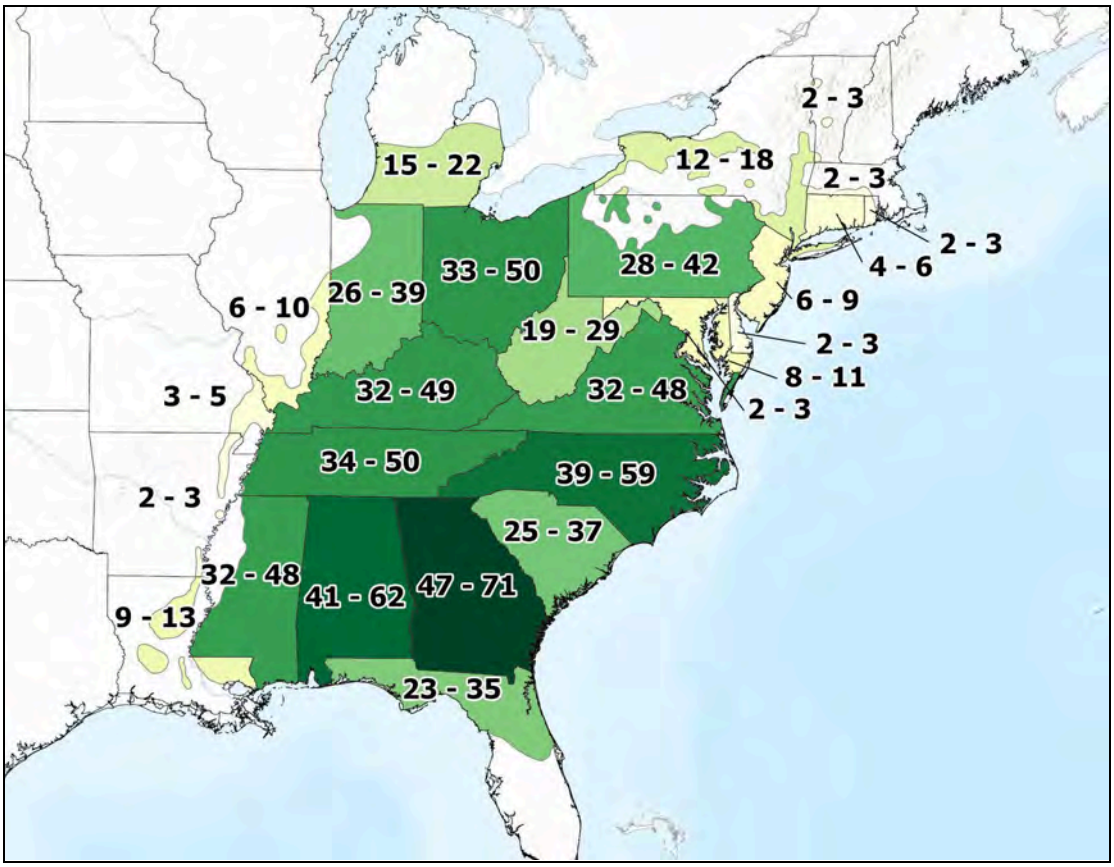


Figure 2. The sample targets trees (minimum - maximum) for *Liriodendron tulipifera* by state.

The 40% above maximum target sample (1,023 samples) is used to account for volunteer attrition and public land areas in the generated list that do not issue permits or are not appropriate for sampling (e.g. *Liriodendron tulipifera* is not present). Two samples per public land area is the minimum number of samples per land area in order to make efficient use of limited resources and retain even-sample distribution across the landscape. Public land areas with an area greater than 1.5 km^2 are preferentially permitted to collect samples from larger land parcels. Buffers will be incorporated into the sample number for each public land area when applying for permits; these buffers will ensure no public land area is over sampled.

Sampling progress is monitored through the duration of the project, with permit details, volunteer sign ups, and sample locations displayed on interactive maps for volunteers and the Project Management Team (described below). Once the target sample number is reached (which is typically lower than the maximum number of trees permitted as a buffer), the public land area will be closed to further sampling. In addition, as state sample targets are reached, and the sample distribution for the state is adequate, the whole state may be closed to further sampling and volunteers directed to sample in other areas.

Our partners at the USFS have also requested we collect cores from approximately 100 trees throughout the native range. Adventure Scientists will obtain cores evenly distributed across the range from a subset of the sampled trees. Cores will be analyzed for chemical composition using mass spectrometry. The USFWS Forensics Lab will use DART-MS to develop chemical signatures of the core. Additional analysis with ICP-MS may be conducted for chemical composition, including trace elements, for comparison to DART-MS results.

We estimate the need to recruit up to 200 teams (400 volunteers, this includes an expected 40% attrition), with the distribution of teams based on the number of target samples in each state.

During the growing season, volunteers will collect two mature leaves and place them into an envelope. Each envelope will be labeled with the provided barcode, each sample's barcode will be scanned into the Survey123 survey, and samples will be placed into a single zip-loc bag containing 1 cup silica gel desiccant. Because of the large leaf size, samples may be folded or cut in order to fit into the envelope. One leaf will be utilized for destructive sampling and the other will be kept as a voucher sample.

Alternative sampling may be done using flowers and green leaves from the forest floor. The procedure for sampling flowers is the same as that for leaves, with the petals of the flower separated from the entire flower and placed in the envelope instead of leaves. A minimum of 4 petals should be sampled. Leaves may be sampled from the forest floor if they are green (i.e. not brown or colored due to senescence), e.g. recently fallen from the tree due to a recent wind or storm event.

During the dormant season, volunteers will collect one 4" terminal stem and place it into an envelope. Preference is for the stem to contain living dormant buds over dead buds. If present, leaves may be sampled during dormant season, provided they have not fully experienced senescence. It is generally difficult to extract DNA from leaves that have undergone senescence, however that is not known for *Liriodendron tulipifera*. Each sample will be labeled with the

provided barcode, scanned into the Survey123 survey, and stored in a single zip-loc bag containing 1 cup silica gel desiccant. Leaf tissue is preferred for genetic material extraction, but can be extracted from terminal stems. The portion of the stem not used in sampling will be kept as a voucher sample.

Cores are collected during the growing and dormant seasons on an opportunistic basis as determined by project management and on permitted lands allowing cores. Increment borers on hand are in two sizes 6 inch long/4.3 mm diameter and 8 inch long /5.15 mm diameter. Cores will be taken to a maximum diameter for the increment borer following standard procedures and placed in cardboard straws for shipping. A minimum DBH of 18 inches (circumference of 56.5 inches) is required for coring and a minimum depth of 5 inches is requested to allow for the core to extract both heartwood and softwood.

Volunteer Liability

By recruiting and screening for experienced outdoor adventurers, we greatly mitigate risks associated with this project. Adventure Scientists requires volunteers sign an assumption and acknowledgement of risk form when they apply. Adventure Scientists has created an emergency and incident management plan to handle incidents during the management phase, and maintains adequate insurance throughout the project period. Volunteers will travel in groups of two people minimum for safety.

3. Late Successional Forest Management Project. The Nature Conservancy.

The MD/DC Chapter of The Nature Conservancy is collaborating with Maryland Forest Service and the Maryland Wildlife and Heritage Service to implement a "Late-successional Forest Management Project" in western Maryland. The long-term goal of this project is to demonstrate the potential of using Structural Complexity Enhancement (SCE) methods to accelerate the development of late-successional characteristics in western MD forests. Young- to-mid successional forests lack the structural complexity present in diverse, late-successional forests. However, "maintain and enhance species and structural diversity" is one of the climate adaptation strategies which would enhance climate resilience at landscape-scale. TNC will partner with Northern Institute of Applied Climate Science (NIACS), to use their Forest Adaptation Resources as a guide in developing this project.
TNC, in consultation with DNR resource professionals, have identified two treatment sites, plus a reference site (a designated old-growth area) at Savage River State Forest (SRSF) to implement this project. The two treatment sites are located in between a wildland and an Ecologically Significant Area (ESA). There are "confirmed old growth sites" within the OGEMA, that are limited in size and connectivity. Hence, applying this type of silvicultural treatments with primary objectives of fostering old-growth conditions, would enhance old growth ecosystem functionality, which is a recommended action in the Sustainable Forest Management Plan for SRSF.

SCE is the use of a combination of silvicultural techniques to promote structural complexity in forest ecosystems including creating multi-layered canopies, increasing the number of snags and coarse woody debris, and increasing the number of large living trees. This complexity in vegetation structure and age-class distribution has a direct effect on the biological diversity in a forested system. At landscape scale, late-successional forests are a necessary element of landscape diversity, which enhances climate resilience. Recent studies have suggested that forests managed with SCE treatments have the potential to increase carbon storage and provide additional climate change mitigation benefits. The proposed project is part of a larger initiative to demonstrate different SCE treatments to foresters and landowners. In consultation with DNR resource professionals, TNC will develop communication materials such as pamphlets, infographics, videos and presentations to disseminate the learning outcomes of the project. In addition, field tours and workshops will be organized for foresters and landowners to promote understanding of SCE techniques as an option in forest management. Landowner adaptation of SCE will have a positive effect on the natural resources of Maryland by improving late-successional wildlife habitat and landscape diversity. Enhanced climate resilience of the landscape and improved ecosystem services will have numerous benefits to the natural environment and the citizens of the state.

4. Statewide Wood Turtle Population Assessment and Management. – continuation from 2023

Project Description: Maryland is participating in a regional Comprehensive State Wildlife Grant Project (11 states involved) from 2021-2023 to begin implementation of the 2018 northeast wood turtle conservation plan.

There are three main tasks to be achieved:

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 BMP's for field mowing (wood turtles spend summers in hayfields and pastures) and roadway management to reduce roadkill.

General Site Conditions: 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, and clear water, and mostly use pools (not riffles). Management will occur primarily along stream banks and adjacent upland areas.

Project Considerations: Standardized population surveys require three surveys per season (spring and/or fall) for a maximum of six 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, three water samples per survey. DNR is partnering with the Susquehannock Wildlife Society (SWS) and Mid-Atlantic Center for Herpetology and Conservation (MACHAC). Staff from SWS (primarily Scott McDaniel and Brian Durkin) and from MACHAC (Lori Erb) will be conducting most of the Central Region surveys while DNR-NHP 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.
In addition to the projects outlined above, we continue to collaborate with other agencies within DNR and the Maryland Department of Agriculture on various ongoing monitoring and research based projects:

Maryland Department of Environment – Biological stream surveys
Maryland Department of Agriculture - Forest pest trapping

Maryland Department of Agriculture – Eastern Hemlock treatment
Wildlife and Heritage Service – Black bear bait station survey

X. Silvicultural Proposals

COMPARTMENT 1 – Stands 46,54,59,60,83,84,98&99 FY-25

Description / Resource Impact Assessment

Location: This harvest proposal is located north of Route 40 in Compartment 1 of Savage River State Forest. Access will be by way of an existing haul road leading through the Keyser's Ridge Industrial Park. Landing location is approximately 1.25 miles north of the Industrial Park entrance off Route 40.

Forest Community Type and Condition: This 72-acre site contains a large sawtimber mixed oak stand that is approximately 104 years old with an average merchantable diameter of 18.6 inches. The overstory consists of northern red oak (25%), red maple (20%), American beech (14%), yellow poplar (10%), black cherry (9%) and sugar maple (6%). The stocking in this stand is at 102% relative density with a basal area of 163 ft^2/acre and 481 trees per acre. The stand is currently overstocked with unacceptable growing stock (UGS) accounting for over 50% of the basal area. Desirable regeneration is currently lacking due to a thick mid-story layer of undesirable tall-woody interference and the tight canopy of mature trees.

Interfering Elements: Interfering understory plant competition is sufficient to cause complications in desirable regeneration efforts with the majority of the site containing some form of significant interference. This interference coupled with the tight canopy of the mature overstory trees is significantly hindering regeneration within the stand. Tall woody interference occupies approximately 91% of the stand consisting primarily of American beech and sweet birch. Low woody interference occupies approximately 27% of the site, consisting primarily of American beech and striped maple. Rhizomatous fern interference was noted to be a minimal issue while only affecting 10% of the site likely due to the tight canopy above.

In addition to interfering vegetation, the presence of white-tailed deer can have a negative influence on the regeneration success of the stand. Overbrowsing can facilitate failure of desirable seedling establishment and in extreme cases shift in species composition dominated by undesirable tree species. Field evaluations of the site estimated deer browse impact to be moderate. Monitoring of deer browse impacts will coincide with regeneration inventories to determine if additional measures need to be implemented to reduce deer herbivory and increase the likelihood of regeneration establishment on the site.

Historic Conditions: State Forest records indicate that the proposal area was partially harvested in the early 1990's. The adjacent stands to the northwest were harvested in 2002 and a small stand to the south was harvested in 1995.

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: The management proposal does not contain any HCVF areas, but the western boundary of the proposal borders the streamside management zone on Bucks Run.

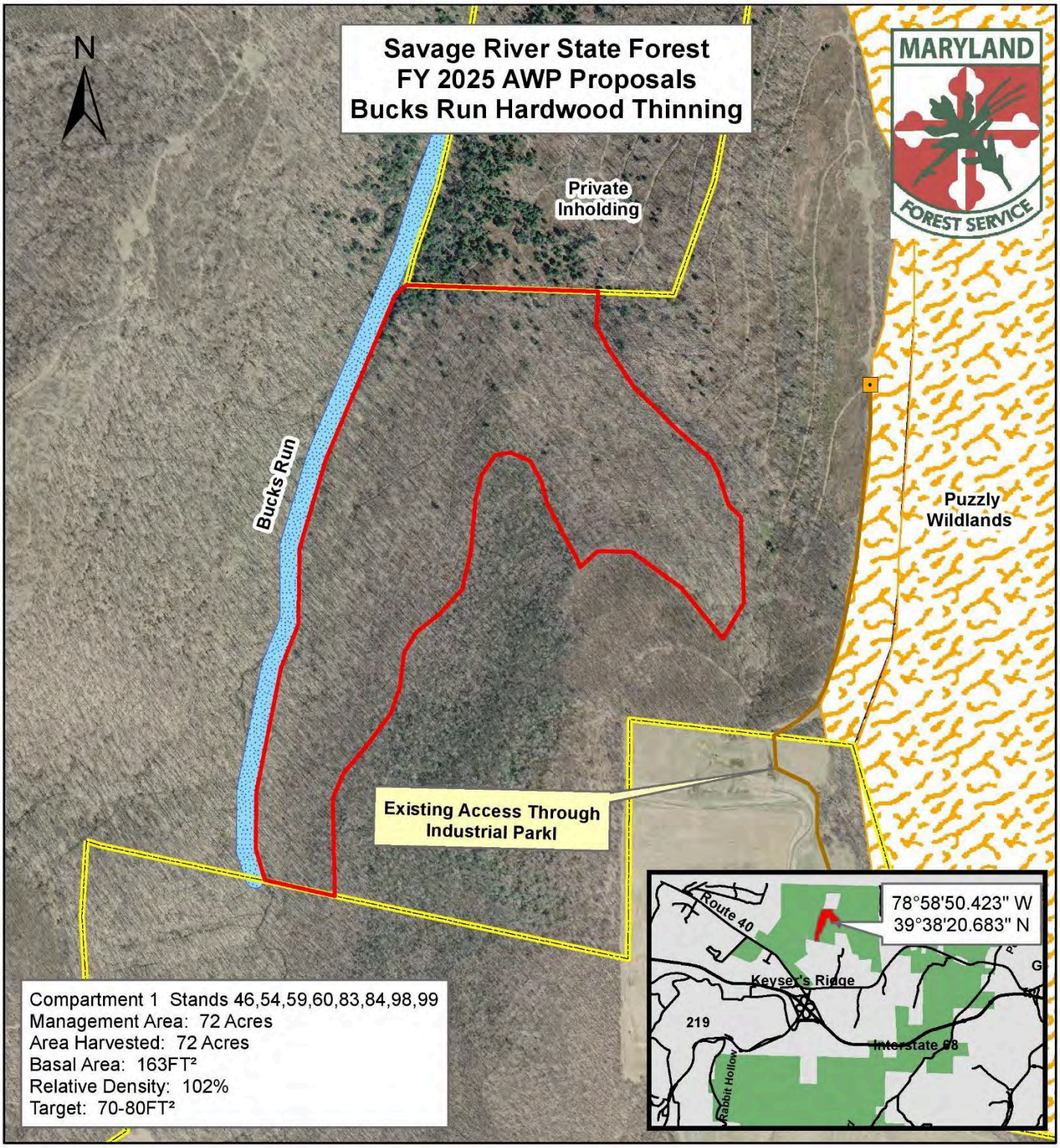
Water Resources: This stand drains northwest into Bucks Run within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF stream buffers and designated wetland areas. No heavy equipment will be permitted within the protective riparian buffers of any streams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

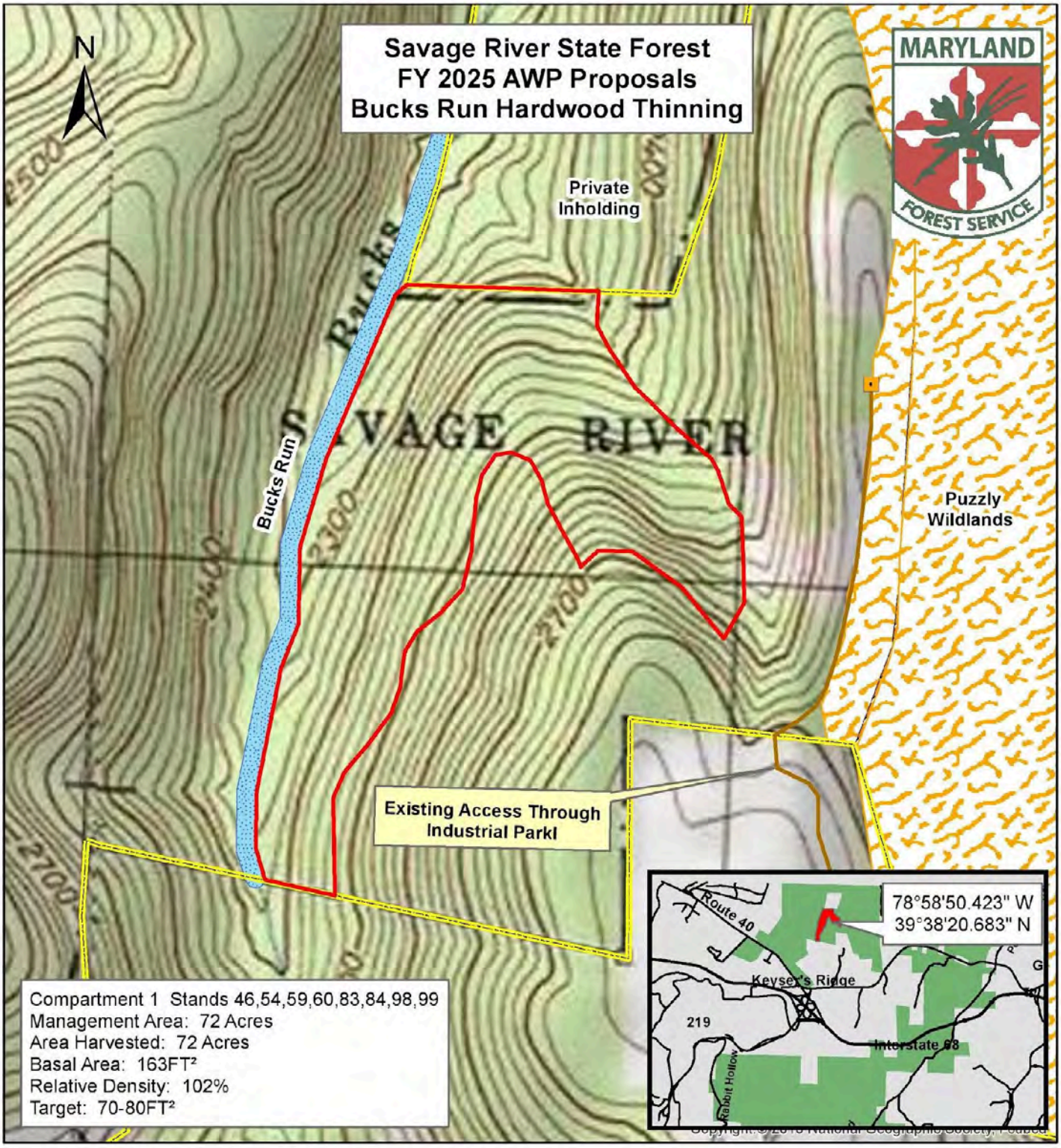
Soil Resources: The predominant soil types of the site are Cookport and Ernest Very Stony Silt Loams, 8-25% slopes (CuD) along Stony Land Steep (SrF). The soils are composed mainly of sandstone with some shale and siltstone found throughout. These soils are moderately deep and moderately well drained with slight equipment limitations becoming moderate with slope. 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 per the Department's Best Management Practices and rutting guidelines.

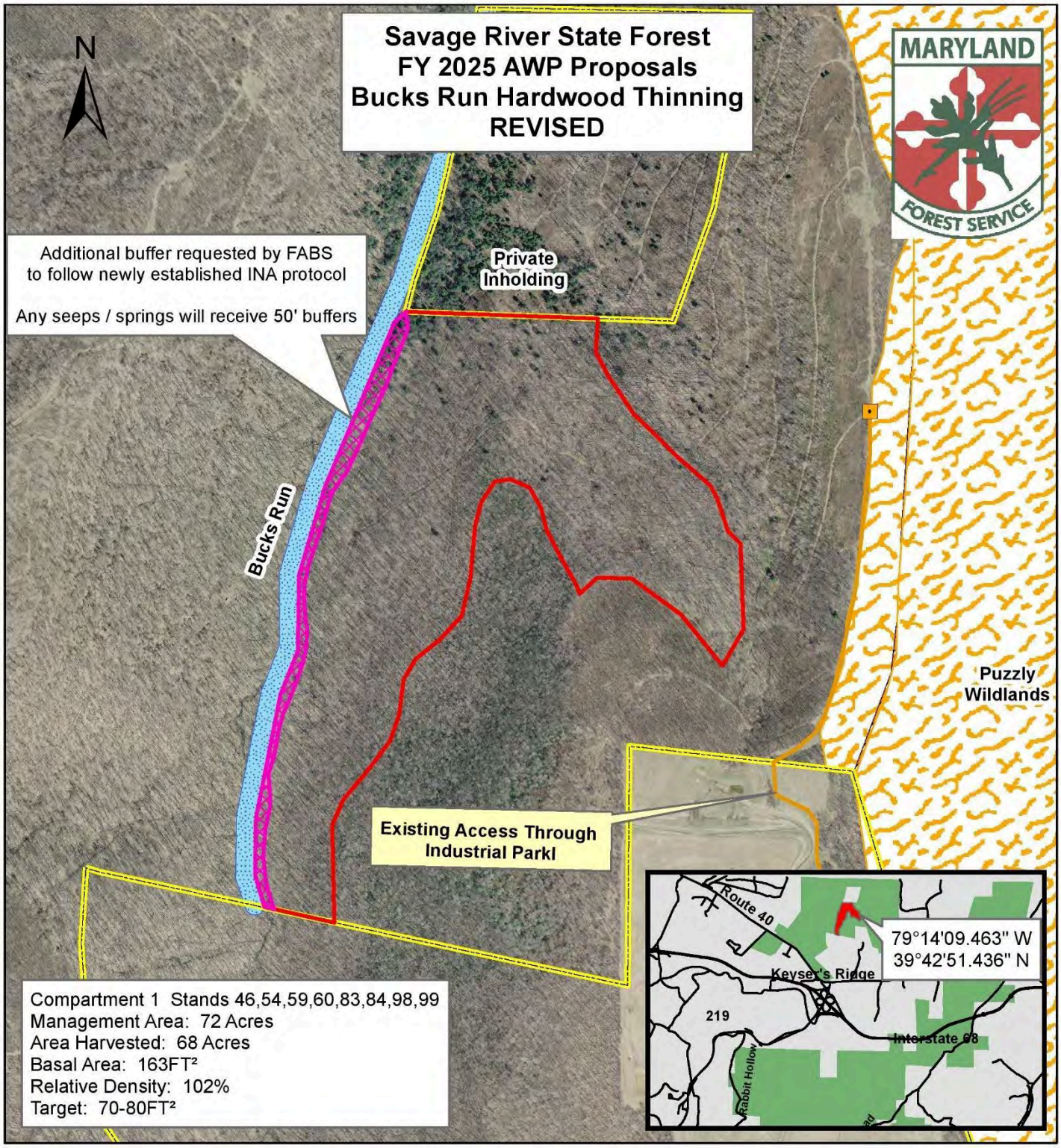
Recreation Resources: No developed recreational resources are located within the stand. The access road for the stand is primarily utilized for hunting access. Hunting opportunities may be disrupted for the duration of the harvest and access to the site may be limited depending on the timing of the harvest.

Management and Silvicultural Recommendations:

The proposed silvicultural treatment for this site is a commercial thinning given the overstocked nature of the stand and the overstory contains a significant component of undesirable growing stock (UGS). A crown thinning will be implemented, removing approximately 80 ft^2 of basal area per acre and reducing the residual basal area to 70-80 ft^2. Removals will be concentrated on undesirable growing stock in the medium sawtimber size class coupled with mature individual trees that will afford large canopy gaps and facilitate regeneration establishment in the understory. Estimated yield for the thinning is approximately 7,000 board feet per acre. Residual trees will benefit from the improved spacing post-harvest with increased vigor, growth rates and overall stand health. Retention will favor small and medium sawtimber trees of superior form and health to facilitate seedling establishment of the future stand. The process of the timber harvest should break the mid-story canopy of undesirable tall-woody interference and afford additional sunlight to the understory and established regeneration which is currently suppressed. Post-harvest monitoring will be conducted to determine if the present regeneration has responded to the thinning and if additional regeneration has established on the site. The long-term goal for the site is to have a desirable cohort of regeneration occupying the site when a final removal harvest is conducted to release the regeneration as the new stand of trees.


Savage River State Forest
FY 2025 AWP Proposals
Bucks Run Hardwood Thinning
N
MARYLAND
FOREST SERVICE
Private Inholding
Bucks Run
Puzzly Wildlands
Existing Access Through Industrial Park
Compartment 1 Stands 46,54,59,60,83,84,98,99
Management Area: 72 Acres
Area Harvested: 72 Acres
Basal Area: 163FT²
Relative Density: 102%
Target: 70-80FT²
78°58'50.423" W
39°38'20.683" N
Route 40
Keyser's Ridge
219
Interstate 68
Rabbit Hollow
Landing
Haul Road
Sines Place HW Thinning
Savage River SF Boundary
Old Growth Ecosystem Area
Ecologically Significant Areas
Old Growth
SRSF Wildlands
streams and 50' buffers
Wetlands of State Concern
1 inch = 667 feet
1:8,000
0 225 450 900 1,350 1,800
Feet
MARYLAND
DEPARTMENT OF
NATURAL RESOURCES


Savage River State Forest
FY 2025 AWP Proposals
Bucks Run Hardwood Thinning
N
MARYLAND
FOREST SERVICE
Private Inholding
Bucks Run
SAVAGE RIVER
Puzzly Wildlands
Existing Access Through Industrial Park
2500
2400
2300
2700
Compartment 1 Stands 46,54,59,60,83,84,98,99
Management Area: 72 Acres
Area Harvested: 72 Acres
Basal Area: 163FT²
Relative Density: 102%
Target: 70-80FT²
78°58'50.423" W
39°38'20.683" N
Route 40
Keyser's Ridge
219
Interstate 68
Rabbit Hollow
Landing
Haul Road
Sines Place HW Thinning
Savage River SF Boundary
Old Growth Ecosystem Area
Ecologically Significant Areas
Old Growth
SRSF Wildlands
streams and 50' buffers
Wetlands of State Concern
1 inch = 667 feet
1:8,000
0 225 450 900 1,350 1,800
Feet
MARYLAND
DEPARTMENT OF
NATURAL RESOURCES



Landing
Haul Road
Buffer
Sines Place HW Thinning
Savage River SF Boundary

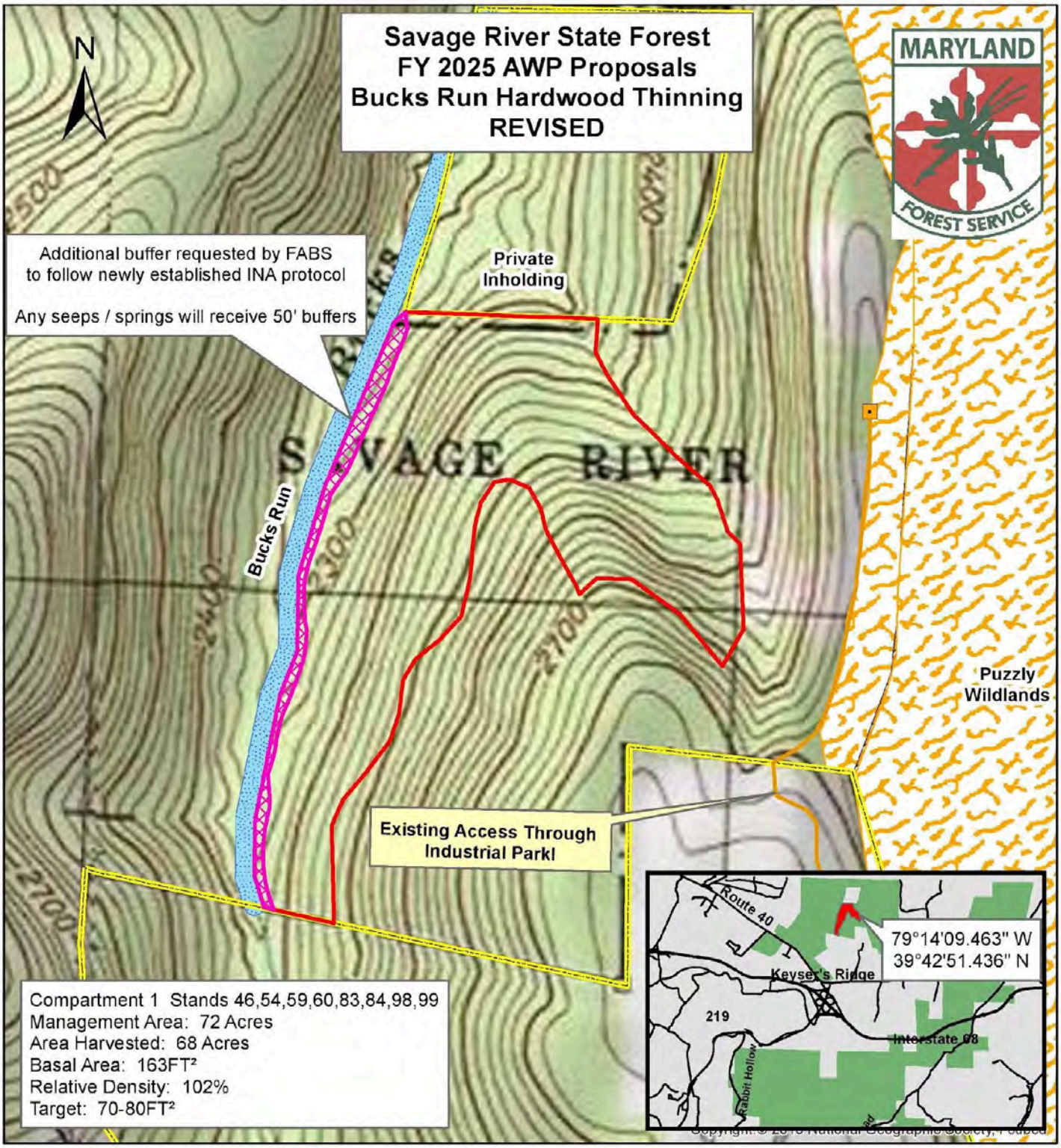
Old Growth Ecosystem Area
Ecologically Significant Areas
Old Growth
SRSF Wildlands
streams and 50' buffers
Wetlands of State Concern

1 inch = 667 feet

1:8,000

0 212.5 425 850 1,275 1,700 Feet

MARYLAND
DEPARTMENT OF
NATURAL RESOURCES



- Landing
- Haul Road
- Buffer
- Sines Place HW Thinning
- Savage River SF Boundary
- Old Growth Ecosystem Area
- Ecologically Significant Areas
- Old Growth
- SRSF Wildlands
- streams and 50' buffers
- Wetlands of State Concern

1 inch = 667 feet

1:8,000

0 212.5 425 850 1,275 1,700 Feet

MARYLAND DEPARTMENT OF NATURAL RESOURCES

COMPARTMENT 8 – Stands 20 & 26 **FY-25**
PROPOSED STAND 1

Description / Resource Impact Assessment

Location: This proposal is located along the east side of Amish Road approximately 1.75 miles north of the intersection of Amish Road with Bowman Hill Road in Compartment 8 Stands 20 & 26. The harvest area is approximately 0.25 miles south of the county road and will utilize an existing landing along the east side of Amish Road and existing skid trail network.

Forest Community Type and Condition: This 16-acre site contains a medium sawtimber mixed oak stand that is approximately 88 years old with an average merchantable diameter of 13.5 inches. The overstory consists of red maple (40%), northern red oak (32%), black cherry (20%) and sweet birch (6%). The stocking in this stand is at 84% relative density with a basal area of 134 ft²/acre. This stand was left un-thinned following the 1996 thinning harvest of much of the adjacent area . Desirable oak regeneration is currently present a various size categories within the understory along with a cohort of desirable saplings within the mid-story.

Interfering Elements: Interfering understory plant competition is sufficient to cause complications in desirable regeneration efforts with the majority of the site containing some form of significant interference. This interference coupled with the tight canopy is significantly hindering the regeneration within the stand. Tall woody interference occupies approximately 66% of the stand consisting primarily of sweet birch and striped maple. Low woody interference occupies approximately 20% of the site, consisting primarily of striped maple. Rhizomatous ferns and grass occupy only a minimal area of the stand (30%) due to the low levels of sunlight reaching the forest floor. Non-native invasive species were not observed within the stand.

In addition to interfering vegetation, the presence of white-tailed deer can have a negative influence on the regeneration success of the stand. Overbrowsing can facilitate failure of desirable seedling establishment and in extreme cases shift in species composition dominated by undesirable tree species. Field evaluations of the site estimated deer browse impact to be moderate. Monitoring of deer browse impacts will coincide with regeneration inventories to determine if additional measures need to be implemented to reduce deer herbivory and promote the advanced regeneration into the sapling stage.

Historic Conditions: State Forest records indicate that this stand has not been harvested since state acquisition. The adjacent stands to the west (also incorporated within this harvest proposal) were thinned in 1996. No evidence of forest fire was observed during the stand inventory.

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: The management proposal does not contain any areas designated as HCVF, but the western boundary of this proposal does border on the streamside management zone for an un0named tributary of the Casselman River North Branch.

Water Resources: This stand drains southwest into an un-named tributary to the Casselman River 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: The predominant soil types of this site are Dekalb and Gilpin Very Stony Loams, 0-15% Slopes (DgC) and Stony Land Steep (SrF). The soils are composed mainly of sandstone with some shale and siltstone found throughout. These soils are moderately deep and well drained with moderate equipment limitations primarily associated with slope. 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 per the Department's Best Management Practices and rutting guidelines.

Recreation Resources: No developed recreational resources are located within the stand. The access road for the stand is primarily utilized for hunting access. Hunting opportunities may be disrupted for the duration of the harvest and access to the site may be limited depending on the timing of the harvest.

Management and Silvicultural Recommendations:

The proposed silvicultural treatment for this site is a commercial thinning given that competitive regeneration is likely to respond to release and the stand is overstocked. A crown thinning will be implemented, removing approximately 55 ft^2 of basal area per acre and reducing the residual basal area to 70-80 ft^2. Removals will be concentrated on undesirable growing stock in the medium sawtimber size class coupled with mature individual trees that will afford large canopy gaps and facilitate regeneration establishment in the understory. Estimated yield for the thinning is approximately 3,000 board feet per acre. Residual trees will benefit from the improved spacing post-harvest with increased vigor, growth rates and overall stand health. Retention will favor small and medium sawtimber trees of superior form and health to facilitate seedling establishment of the future stand. The process of the timber harvest should break the mid-story canopy of undesirable tall-woody interference and afford additional sunlight to the understory and established regeneration which is currently suppressed. Post-harvest monitoring will be conducted to determine if the present regeneration has responded to the thinning and if additional regeneration has established on the site. The long-term goal for the site is to have a desirable cohort of regeneration occupying the site when a final removal harvest is conducted to release the regeneration as the new stand of trees.

COMPARTMENT 8 – Stand 26 (partial) **FY-25**

PROPOSED STAND 2

Description / Resource Impact Assessment

Location: This proposal is located along the east side of Amish Road approximately 1.75 miles north of the intersection of Amish Road with Bowman Hill Road in Compartment 8 Stands 20 & 26. The harvest area is approximately 0.25 miles south of the county road and will utilize an existing landing along the east side of Amish Road and existing skid trail network.

Forest Community Type and Condition: This 35-acre site contains a medium sawtimber mixed oak stand that is approximately 88 years old with an average merchantable diameter of 16.4 inches. The overstory consists of northern red oak (48%), red maple (23%), black cherry (19%) and sweet birch (4%). The stocking in this stand is at 74% relative density with a basal area of 112 ft²/acre. This stand was thinned in 1996 but has a very patchy condition following approximately 25 years of growth, likely because the previous harvest was some type of salvage operation. Desirable oak regeneration is currently present a various size categories within the understory along with a cohort of desirable saplings within the mid-story.

Interfering Elements: Interfering understory plant competition is sufficient to cause complications in desirable regeneration efforts with the majority of the site containing some form of significant interference. Tall woody interference occupies approximately 70% of the stand consisting primarily of witch-hazel, striped maple and sweet birch. Low woody interference was found to be minimal due to the thick midstory of pole interference. Rhizomatous ferns and grass occupy only a minimal area of the stand (30%) due to the low levels of sunlight reaching the forest floor. Non-native invasive species were not observed within the stand.

In addition to interfering vegetation, the presence of white-tailed deer can have a negative influence on the regeneration success of the stand. Overbrowsing can facilitate failure of desirable seedling establishment and in extreme cases shift in species composition dominated by undesirable tree species. Field evaluations of the site estimated deer browse impact to be moderate. Monitoring of deer browse impacts will coincide with regeneration inventories to determine if additional measures need to be implemented to reduce deer herbivory and promote the advanced regeneration into the sapling stage.

Historic Conditions: State Forest records indicate that this stand was thinned in 1996 – likely as a salvage operation observed from the current stand condition.

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: The management proposal does not contain any areas designated as HCVF, but the western boundary of this proposal does border on the streamside management zone for an un0named tributary of the Casselman River North Branch.

Water Resources: This stand drains southwest into an un-named tributary to the Casselman River 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: The predominant soil types of this site are Dekalb and Gilpin Very Stony Loams, 15-25% Slopes (DgD) and Cookport and Ernest Very Stony Silt Loams 0-8% (CuB). The soils are composed mainly of sandstone with some shale and siltstone found throughout. These soils are moderately deep and well drained with moderate equipment limitations. 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 per the Department's Best Management Practices and rutting guidelines.

Recreation Resources: No developed recreational resources are located within the stand. The access road for the stand is primarily utilized for hunting access. Hunting opportunities may be disrupted for the duration of the harvest and access to the site may be limited depending on the timing of the harvest.

Management and Silvicultural Recommendations:

The proposed silvicultural treatment for this site is a commercial thinning given that competitive regeneration is likely to respond to release and the stand is overstocked. A crown thinning will be implemented, removing approximately 40 ft^2 of basal area per acre and reducing the residual basal area to 70-80 ft^2. Removals will be concentrated on undesirable growing stock in the medium sawtimber size class coupled with mature individual trees that will afford large canopy gaps and facilitate regeneration establishment in the understory. Estimated yield for the thinning is approximately 2,500 board feet per acre. Residual trees will benefit from the improved spacing post-harvest with increased vigor, growth rates and overall stand health. Retention will favor small and medium sawtimber trees of superior form and health to facilitate seedling establishment of the future stand. The process of the timber harvest should break the mid-story canopy of undesirable tall-woody interference and afford additional sunlight to the understory and established regeneration which is currently suppressed. Post-harvest monitoring will be conducted to determine if the present regeneration has responded to the thinning and if additional regeneration has established on the site. The long-term goal for the site is to have a desirable cohort of regeneration occupying the site when a final removal harvest is conducted to release the regeneration as the new stand of trees.

COMPARTMENT 8 – Stand 26 (partial) **FY-25**

PROPOSED STAND 3

Description / Resource Impact Assessment

Location: This proposal is located along the east side of Amish Road approximately 1.75 miles north of the intersection of Amish Road with Bowman Hill Road in Compartment 8 Stands 20 & 26. The harvest area is approximately 0.25 miles south of the county road and will utilize an existing landing along the east side of Amish Road and existing skid trail network.

Forest Community Type and Condition: This 6-acre site contains a poletimber mixed hardwood stand that is approximately 60 years old with an average merchantable diameter of 10.0 inches. The overstory consists of red maple (57%), black cherry (30%), and sweet birch (13%). The stocking in this stand is at 55% relative density with a basal area of 78 ft^2/acre. This stand was cut through in 1996 and has resulted in a stand dominated by undesirable stems with scattered large sawlogs throughout. Desirable regeneration is absent from the understory.

Interfering Elements: Interfering understory plant competition is sufficient to cause complications in desirable regeneration efforts with the majority of the site containing some form of significant interference. Tall woody interference occupies approximately 63% of the stand consisting primarily of witch-hazel, sweet birch and blackgum. Low woody interference occupies approximately 75% of the stand consisting primarily of sweet birch and witch hazel. Rhizomatous ferns were also found to occupy approximately 75% of the stand and contributing to regeneration establishment issues. Non-native invasive species were not observed within the stand.

In addition to interfering vegetation, the presence of white-tailed deer can have a negative influence on the regeneration success of the stand. Overbrowsing can facilitate failure of desirable seedling establishment and in extreme cases shift in species composition dominated by undesirable tree species. Field evaluations of the site estimated deer browse impact to be moderate. Monitoring of deer browse impacts will coincide with regeneration inventories to determine if additional measures need to be implemented to reduce deer herbivory and promote the advanced regeneration into the sapling stage.

Historic Conditions: State Forest records indicate that this stand was thinned in 1996 – likely as a salvage operation observed from the current stand condition.

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: The management proposal does not contain any areas designated as HCVF, but the western boundary of this proposal does border on the streamside management zone for an un0named tributary of the Casselman River North Branch.

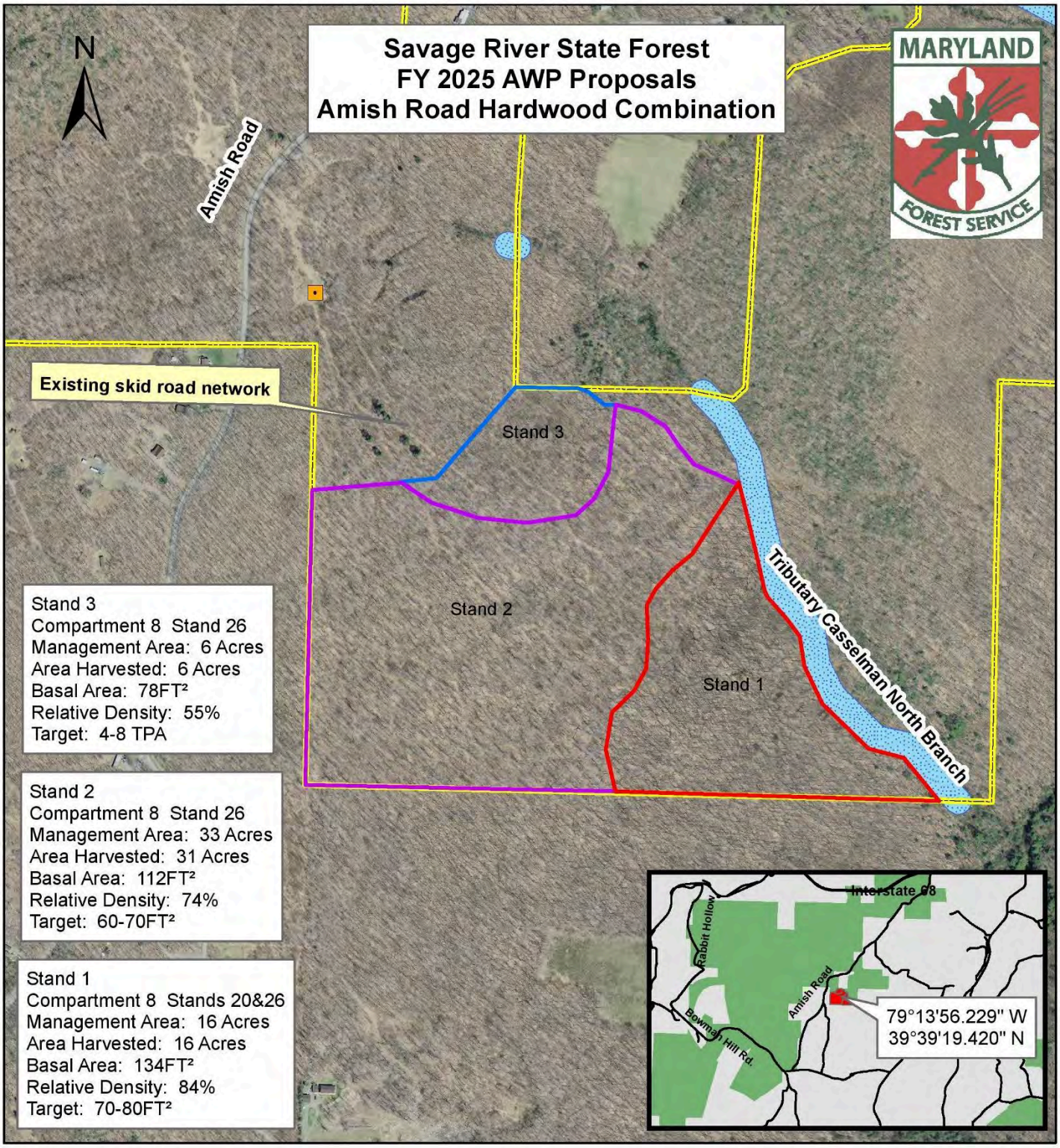
Water Resources: This stand drains southwest into an un-named tributary to the Casselman River within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF and stream buffer areas. No heavy equipment will be permitted within the protective riparian buffers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

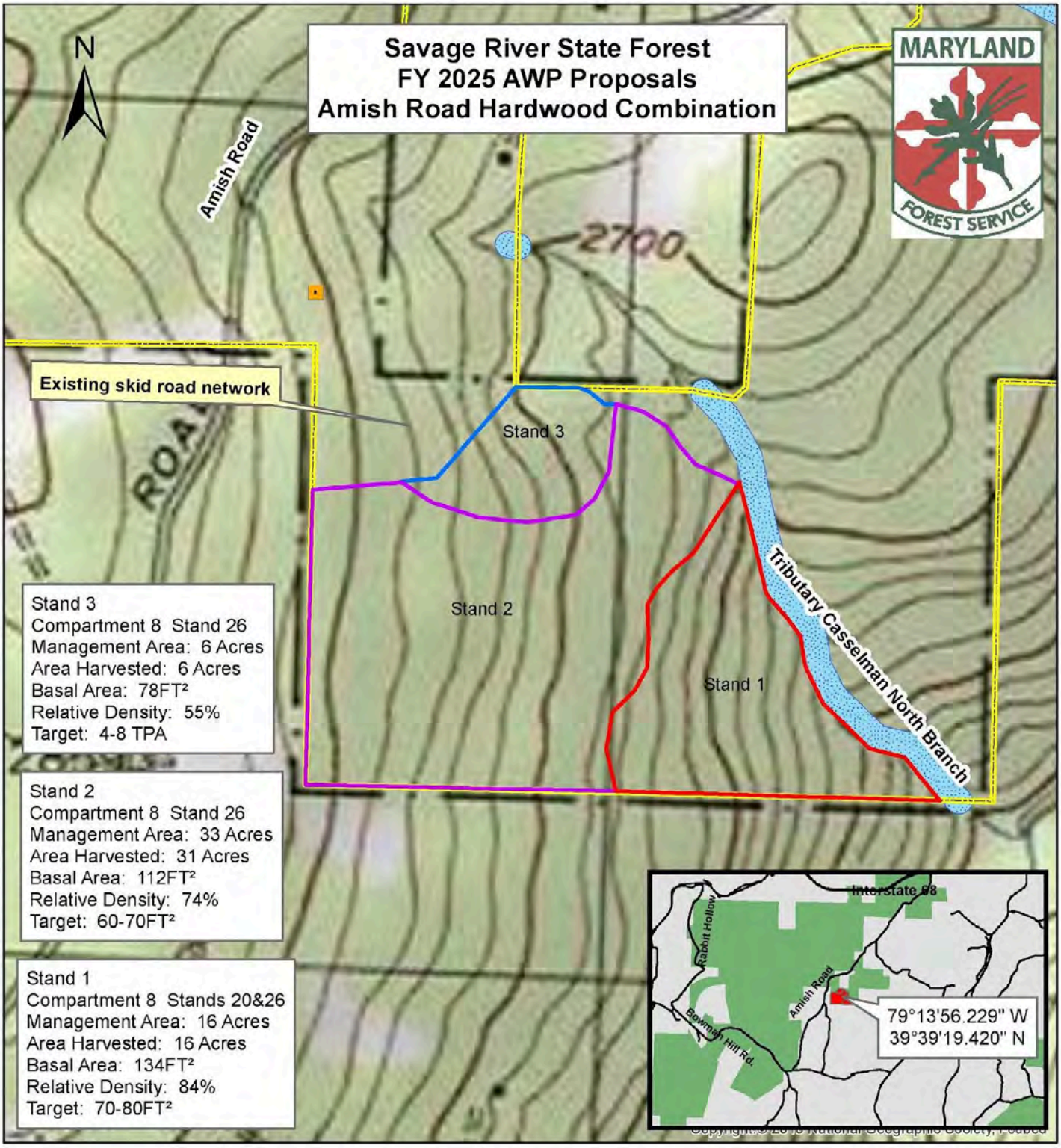
Soil Resources: The predominant soil types of this site are Dekalb and Gilpin Very Stony Loams, 15-25% Slopes (DgD) and Cookport and Ernest Very Stony Silt Loams 0-8% (CuB). The soils are composed mainly of sandstone with some shale and siltstone found throughout. These soils are moderately deep and well drained with moderate equipment limitations. 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 per the Department's Best Management Practices and rutting guidelines.

Recreation Resources: No developed recreational resources are located within the stand. The access road for the stand is primarily utilized for hunting access. Hunting opportunities may be disrupted for the duration of the harvest and access to the site may be limited depending on the timing of the harvest.

Management and Silvicultural Recommendations:

The proposed silvicultural treatment for this site is a regeneration harvest removing the majority of the overstory and releasing the advanced regeneration currently present. The harvest should remove 1,700 board feet per acre while retaining 4-8 trees per acre to serve as wildlife habitat and a supplemental seed source. The targeted trees to be retained will primarily be oak species of good form coupled with stems that have cavities and habitat potential. The low average diameter of the current stand can be attributed to the cohort of poles and saplings that resulted from the 1996 thinning. The current stand has adequate volume of sawtimber-size stems to facilitate a commercial harvest while releasing any advanced regeneration to dominate the next stand of trees. The current stand conditions also show that the percentage of undesirable growing stock is roughly 60% of the overstory, making a removal harvest the best choice in releasing any desirable regeneration present and prepping the site for additional regeneration establishment.


Savage River State Forest
FY 2025 AWP Proposals
Amish Road Hardwood Combination
N
MARYLAND
FOREST SERVICE
Amish Road
Existing skid road network
Stand 3
Stand 2
Stand 1
Tributary Casselman North Branch
Stand 3
Compartment 8 Stand 26
Management Area: 6 Acres
Area Harvested: 6 Acres
Basal Area: 78FT²
Relative Density: 55%
Target: 4-8 TPA
Stand 2
Compartment 8 Stand 26
Management Area: 33 Acres
Area Harvested: 31 Acres
Basal Area: 112FT²
Relative Density: 74%
Target: 60-70FT²
Stand 1
Compartment 8 Stands 20&26
Management Area: 16 Acres
Area Harvested: 16 Acres
Basal Area: 134FT²
Relative Density: 84%
Target: 70-80FT²
Interstate 68
Rabbit Hollow
Amish Road
Bowman Hill Rd.
79°13'56.229" W
39°39'19.420" N
Landing
Amish Road HW Stand 1
Amish Road HW Stand 2
Amish Road HW Stand 3
Savage River SF Boundary
Old Growth Ecosystem Area
Ecologically Significant Areas
Old Growth
SRSF Wildlands
streams and 50' buffers
Wetlands of State Concern
1 inch = 500 feet
1:6,000
0 150 300 600 900 1,200
Feet
MARYLAND
DEPARTMENT OF
NATURAL RESOURCES



- Landing
- Amish Road HW Stand 1
- Amish Road HW Stand 2
- Amish Road HW Stand 3
- Savage River SF Boundary
- Old Growth Ecosystem Area
- Ecologically Significant Areas
- Old Growth
- SRSF Wildlands
- streams and 50' buffers
- Wetlands of State Concern

1 inch = 500 feet

1:6,000

0 150 300 600 900 1,200 Feet

MARYLAND DEPARTMENT OF NATURAL RESOURCES

COMPARTMENT 11 – Stand 72 **FY-25**

Description / Resource Impact Assessment

Location: This proposal is located approximately 2 miles north of Bowman Hill Road in Compartment 11 of Savage River State Forest. The harvest area is access by an established haul road known as Bowman Hill North. The haul road entrance is approximately 1.25 miles east of the intersection of Bowman Hill Road with Rabbit Hollow Road.

Forest Community Type and Condition: This 38-acre site contains a medium sawtimber mixed oak stand that is approximately 93 years old with an average merchantable diameter of 16.3 inches. The overstory consists of northern red oak (28%), black cherry (26%), red maple (16%), white oak (11%) and sweet birch (9%). The stocking in this stand is at 52% relative density with a basal area of 90 ft^2/acre. The stand was thinned in 2012 leaving a residual overstory of mixed oak, black cherry and red maple. Desirable regeneration is absent due to a thick mid-story of primarily sweet birch and striped maple.

Interfering Elements: Interfering understory plant competition is sufficient to cause complications in desirable regeneration efforts with the majority of the site containing some form of significant interference. Tall woody interference occupies approximately 93% of the stand, consisting primarily of sweet birch. Low woody interference occupies approximately 96% of the site, consisting primarily of sweet birch. Rhizomatous fern interference was noted to be a minimal issue while only affecting 15% of the site likely due to the thick mid-story of undesirable saplings and poles.

In addition to interfering vegetation, the presence of white-tailed deer can have a negative influence on the regeneration success of the stand. Overbrowsing can facilitate failure of desirable seedling establishment and in extreme cases shift in species composition dominated by undesirable tree species. Field evaluations of the site estimated deer browse impact to be moderate. Monitoring of deer browse impacts will coincide with regeneration inventories to determine if additional measures need to be implemented to reduce deer herbivory and promote the advanced regeneration into the sapling stage.

Historic Conditions: State Forest records indicate that the proposal area was thinned in 2012. The adjacent stand to the south was regenerated in 2001. A stand across the power line to the south was thinned in 2019 while two smaller stands were regenerated in 2009 and 2001. No evidence of forest fire was observed during the stand inventory.

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: The management proposal does not directly border any areas that have been designated as High Conservation Value Forest. The closest area of concern would be the stream buffer on an un-named tributary to Bear Creek which will not be impacted by this proposal.

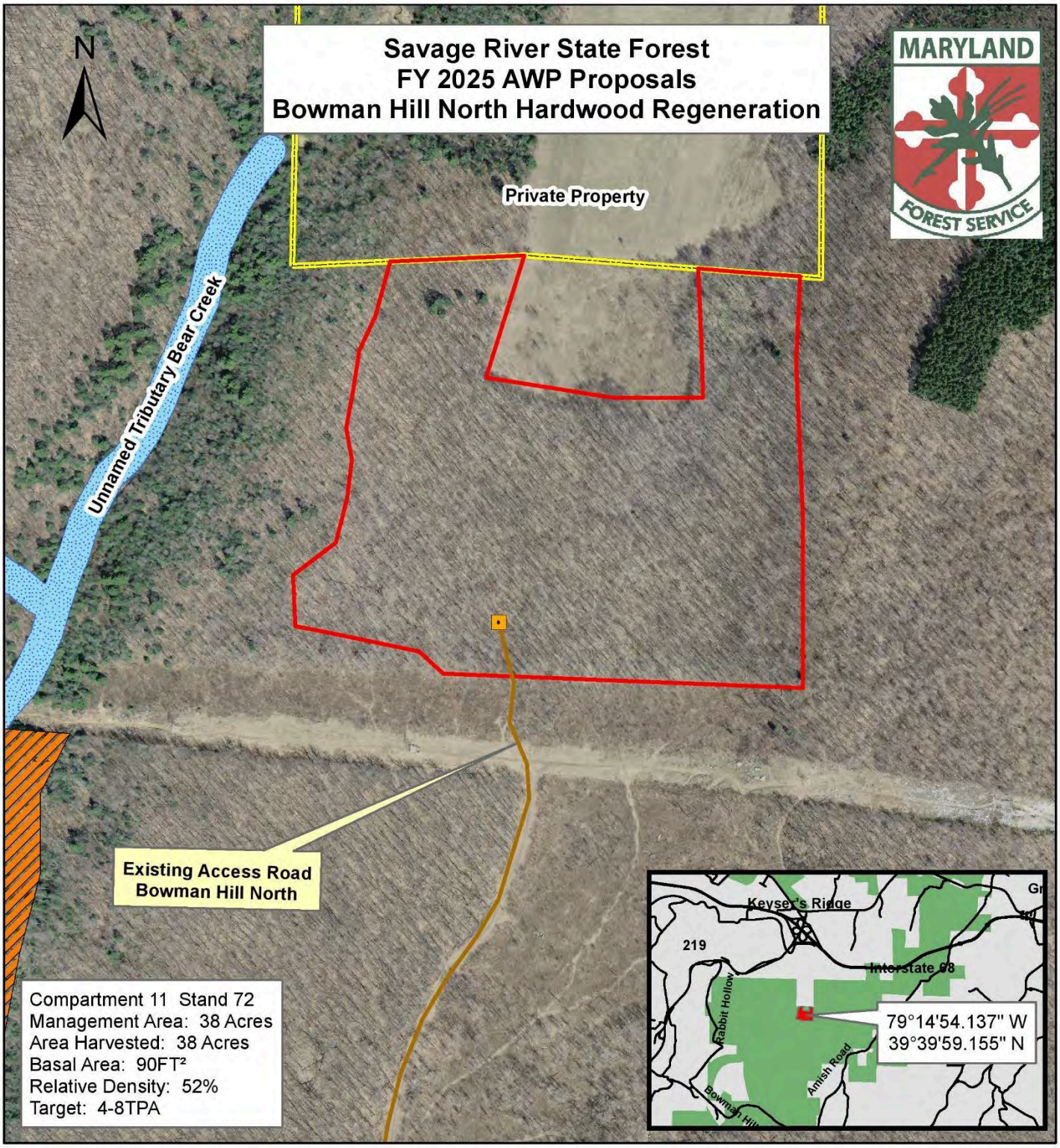
Water Resources: This stand drains southwest into Bear Creek within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF and stream buffer areas. No heavy equipment will be permitted within the protective riparian buffers of any streams or associated wetlands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

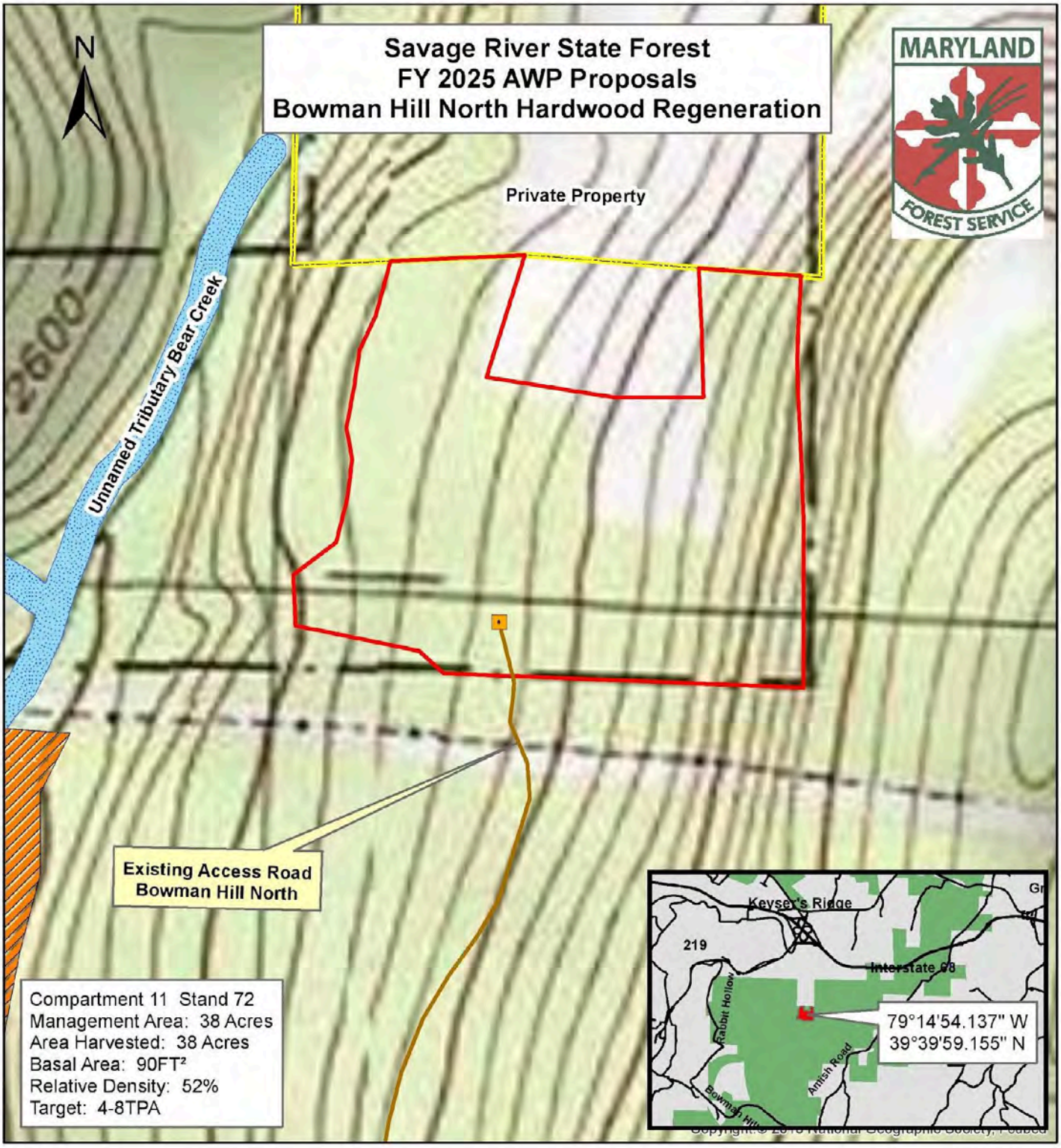
Soil Resources: The predominant soil types within this proposal are Meckesville very stony silt loam 0-8% Slopes (MdB) and Meckesville Silt Loam, 0-8% Slopes (McB). These soils are well-drained and have a high potential for erosion on steeper slopes. Degree of slope ranges from 0-8% throughout the site. The site has excellent productivity for woodland management, with a site index of 75-85 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.

Recreation Resources: No developed recreational resources are located within the stand. The access road for the stand is primarily utilized for hunting access but also serves as part of the Bowman Hill Snowmobile Trail. It is unlikely the sale will be active in conjunction with snowmobile activities due to the distance to the county road. Hunting opportunities may be disrupted for the duration of the harvest and access to the site may be limited depending on the timing of the harvest.

Management and Silvicultural Recommendations:

The proposed silvicultural treatment for this site is a regeneration harvest removing the majority of the overstory and at the same time removing the dense mid-story of undesirable birch. The harvest should remove 7,000 board feet per acre while retaining 4-8 trees per acre to serve as wildlife habitat and a supplemental seed source. The targeted trees to be retained will primarily be oak species of good form coupled with stems that have cavities and habitat potential. The current condition of the mid-story and understory will not allow seedling establishment of desirable stems. The regeneration harvest should address this issue by cutting and/or smashing the birch poles while removing the residual trees and at the same time retaining much of this pole material on the ground as shelter for seedling establishment.


Savage River State Forest
FY 2025 AWP Proposals
Bowman Hill North Hardwood Regeneration
N
MARYLAND
FOREST SERVICE
Private Property
Unnamed Tributary Bear Creek
Existing Access Road
Bowman Hill North
Compartment 11 Stand 72
Management Area: 38 Acres
Area Harvested: 38 Acres
Basal Area: 90FT²
Relative Density: 52%
Target: 4-8TPA
Keyser's Ridge
219
Interstate 68
Rabbit Hollow
Amish Road
79°14'54.137" W
39°39'59.155" N
Landing
Haul Road
Bowman Hill HW Regen
Savage River SF Boundary
Old Growth Ecosystem Area
Ecologically Significant Areas
Old Growth
SRSF Wildlands
streams and 50' buffers
Wetlands of State Concern
1 inch = 417 feet
1:5,000
0 125 250 500 750 1,000
Feet
MARYLAND
DEPARTMENT OF
NATURAL RESOURCES


Savage River State Forest
FY 2025 AWP Proposals
Bowman Hill North Hardwood Regeneration
N
MARYLAND
FOREST SERVICE
Private Property
Unnamed Tributary Bear Creek
2600
Existing Access Road
Bowman Hill North
Compartment 11 Stand 72
Management Area: 38 Acres
Area Harvested: 38 Acres
Basal Area: 90FT²
Relative Density: 52%
Target: 4-8TPA
Keyser's Ridge
219
Interstate 68
Rabbit Hollow
Amish Road
Bowman Hill
79°14'54.137" W
39°39'59.155" N
Landing
Haul Road
Bowman Hill HW Regen
Savage River SF Boundary
Old Growth Ecosystem Area
Ecologically Significant Areas
Old Growth
SRSF Wildlands
streams and 50' buffers
Wetlands of State Concern
1 inch = 417 feet
1:5,000
0 125 250 500 750 1,000
Feet
MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

COMPARTMENT 15 – Stands 41, 42 & 51 **FY-25**
PROPOSED STAND 1

Description / Resource Impact Assessment

Location: This proposal is situated adjacent to the East Shale Road ORV Trail with haul road entrance approximately 0.25 miles south from the terminus of Ellis Drive. Haul road construction will be part of the contract and involve approximately 0.5 miles of road construction and improvements over an existing but unimproved roadbed.

Forest Community Type and Condition: This 39-acre site contains a medium sawtimber mixed oak stand that is approximately 86 years old with an average merchantable diameter of 15.0 inches. The overstory consists of northern red oak (57%), red maple (20%), chestnut oak (7%), sweet birch (6%) and cucumber magnolia (5%). The stocking in this stand is at 102% relative density with a basal area of 166 ft²/acre and 583 trees per acre. The stand is currently overstocked with unacceptable growing stock (UGS) accounting for approximately 58% of the basal area. Desirable regeneration is currently present but suppressed due to a heavy sapling / pole canopy layer of undesirable stems and the tight canopy of the overstory trees. A sizeable sapling component of maple and oak poles is also present in the understory.

Interfering Elements: Interfering understory plant competition is sufficient to cause complications in desirable regeneration efforts with the majority of the site containing some form of significant interference. This interference coupled with the tight canopy of the mature overstory trees is significantly hindering regeneration establishment on the site. Tall woody interference occupies approximately 92% of the stand, consisting primarily of sweet birch and striped maple. Low woody interference is minimal occupies approximately 58% of the site, consisting primarily of witch-hazel. Rhizomatous fern interference was found to occupy a minimal 8% of the stand due to the overstory conditions.

In addition to interfering vegetation, the presence of white-tailed deer can have a negative influence on the regeneration success of the stand. Overbrowsing can facilitate failure of desirable seedling establishment and in extreme cases shift in species composition dominated by undesirable tree species. Field evaluations of the site estimated deer browse impact to be moderate. Monitoring of deer browse impacts will coincide with regeneration inventories to determine if additional measures need to be implemented to reduce deer herbivory and increase the likelihood of regeneration establishment on the site.

Historic Conditions: State Forest records indicate that the proposal area has not been harvested since state acquisition. The adjacent stand to the east was thinned in 1999 while the stands to the southwest along East Shale Road were thinned in 2015 and most recently in 2022. No evidence of fire was observed during the stand inventory.

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: The management proposal contains no established HCVF areas. The proposal area is relatively close to the Wolf Swamp ESA, but no harvesting is to occur within this designated area of high conservation value forest.

Water Resources: This stand drains east into Wolf Swamp flowing into Red Run, a tributary of Big Piney Creek and the Cassellman River 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 Forests Sustainable Forest Management Plan.

Soil Resources: The predominant soil types of this site are Dekalb and Leetonia Very Stony Sandy Loams, 15-25% slopes (DlD) and the Dekalb Channery Loams (DbD2 / DbC2). The soils are composed mainly of sandstone. These soils are moderately deep and well drained with slight equipment limitations elevating to moderate with slope and primarily associated with a high water table. 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 per the Department's Best Management Practices and rutting guidelines.

Recreation Resources: No developed recreational resources are located within the stand. The East Shale Road ORV Trail / Northernmost segment of the Meadow Mountain Trail will serve as the haul road for the harvest.

Management and Silvicultural Recommendations:

The proposed silvicultural treatment for this site is a commercial thinning given that competitive regeneration is hindered and the stand is overstocked. A crown thinning will be implemented, removing approximately 90 ft^2 of basal area per acre and reducing the residual basal area to 70-80 ft^2. Removals will be concentrated on undesirable growing stock in the medium sawtimber size class coupled with mature individual trees that will afford large canopy gaps and facilitate regeneration establishment in the understory. Estimated yield for the thinning is approximately 5,000 board feet per acre. Residual trees will benefit from the improved spacing post-harvest with increased vigor, growth rates and overall stand health. Retention will favor small and medium sawtimber trees of superior form and health to facilitate seedling establishment of the future stand. The process of the timber harvest should break the mid-story canopy of undesirable tall-woody interference and afford additional sunlight to the understory and established regeneration which is currently suppressed. Post-harvest monitoring will be conducted to determine if the present regeneration has responded to the thinning and if additional regeneration has established on the site. The long-term goal for the site is to have a desirable cohort of regeneration occupying the site when a final removal harvest is conducted to release the regeneration as the new stand of trees.

COMPARTMENT 15 – Stands 15 **FY-25**

PROPOSED STAND 2

Description / Resource Impact Assessment

Location: This proposal is situated adjacent to the East Shale Road ORV Trail with haul road entrance approximately 0.25 miles south from the terminus of Ellis Drive. Haul road construction will be part of the contract and involve approximately 0.5 miles of road construction and improvements over an existing but unimproved roadbed.

Forest Community Type and Condition: This 31-acre site contains a large sawtimber mixed oak stand that is approximately 101 years old with an average merchantable diameter of 16.9 inches. The overstory consists of sugar maple (23%), black cherry (18%), northern red oak (17%), hickory (17%) and red maple (15%). The stocking in this stand is at 93% relative density with a basal area of 158 ft^2/acre and 438 trees per acre. The stand is currently overstocked with unacceptable growing stock (UGS) accounting for approximately 40% of the basal area. Desirable regeneration is currently lacking due to a heavy sapling / pole canopy layer of undesirable stems and the tight canopy of the overstory trees. A sizeable sapling component of maple and oak poles is also present in the understory.

Interfering Elements: Interfering understory plant competition is sufficient to cause complications in desirable regeneration efforts with the majority of the site containing some form of significant interference. This interference coupled with the tight canopy of the mature overstory trees is significantly hindering regeneration establishment on the site. Tall woody interference occupies approximately 66% of the stand, consisting primarily of striped maple. Low woody interference is minimal occupies approximately 5% of the site, consisting primarily of witch-hazel. Rhizomatous fern interference was found to occupy a minimal 10% of the stand due to the overstory conditions.

In addition to interfering vegetation, the presence of white-tailed deer can have a negative influence on the regeneration success of the stand. Overbrowsing can facilitate failure of desirable seedling establishment and in extreme cases shift in species composition dominated by undesirable tree species. Field evaluations of the site estimated deer browse impact to be moderate. Monitoring of deer browse impacts will coincide with regeneration inventories to determine if additional measures need to be implemented to reduce deer herbivory and increase the likelihood of regeneration establishment on the site.

Historic Conditions: State Forest records indicate that the proposal area has not been harvested since state acquisition. The adjacent stand to the east was thinned in 1999 while the stands to the southwest along East Shale Road were thinned in 2015 and most recently in 2022. No evidence of fire was observed during the stand inventory.

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: The management proposal contains no established HCVF areas. The proposal area is relatively close to the Wolf Swamp ESA, but no harvesting is to occur within this designated area of high conservation value forest.

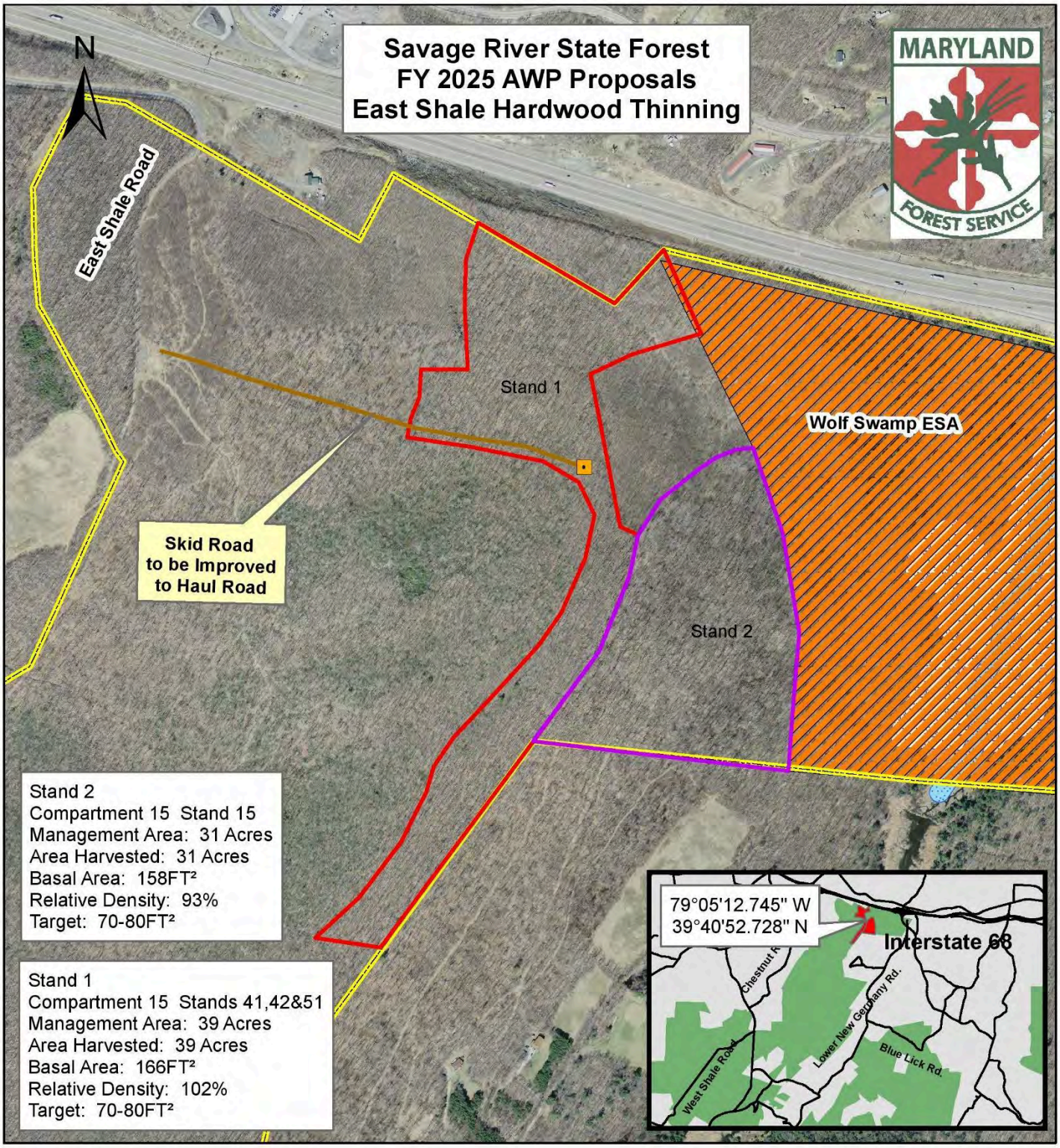
Water Resources: This stand drains east into Wolf Swamp flowing into Red Run, a tributary of Big Piney Creek and the Cassellman River within the Youghiogheny River Watershed. The proposed silvicultural treatments will be outside of all HCVF and stream buffer areas. No heavy equipment will be permitted within the protective riparian buffers of any streams or associated wetlands per the requirements set forth in the State Forests Sustainable Forest Management Plan.

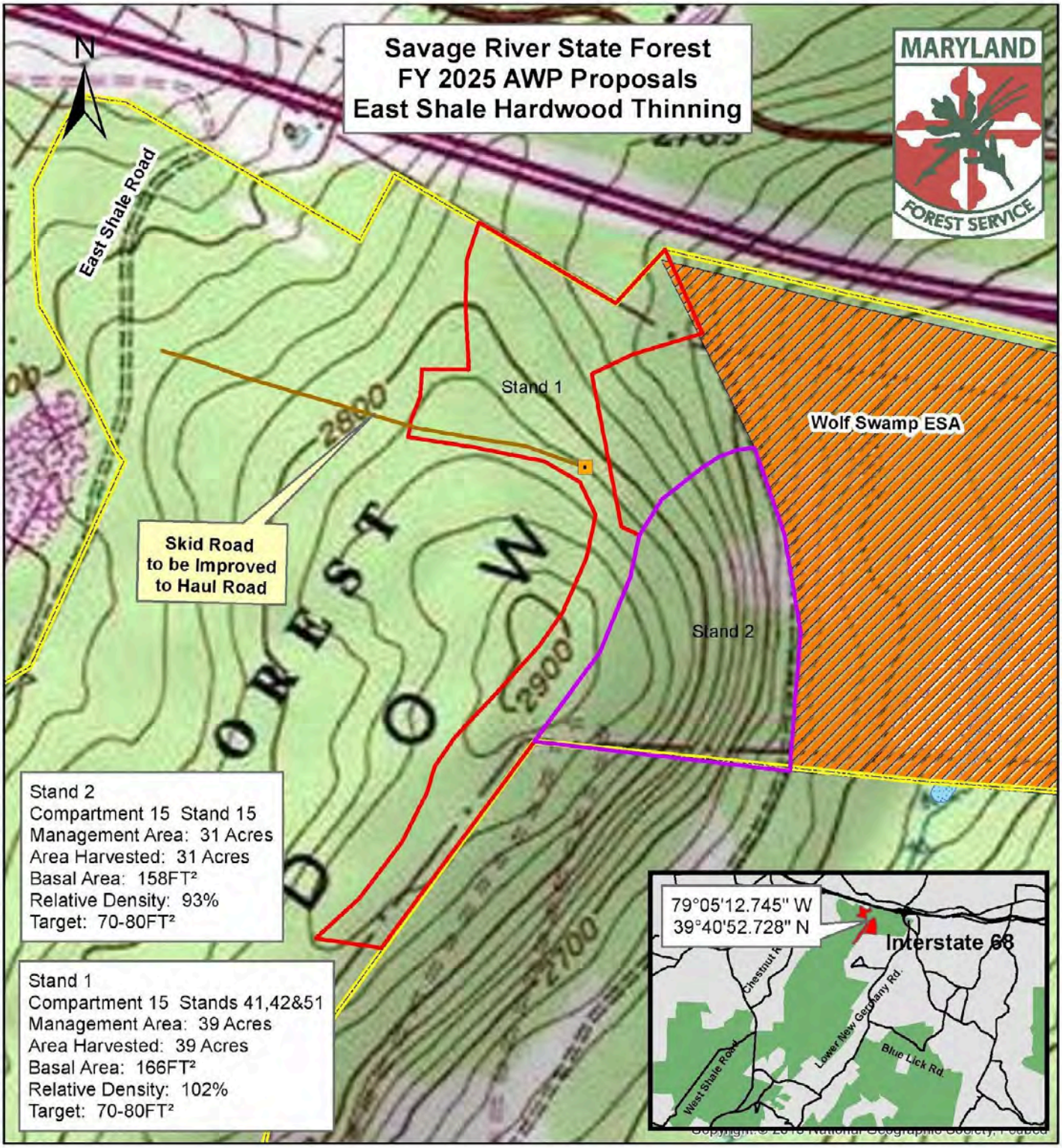
Soil Resources: The predominant soil types of this site are Dekalb and Leetonia Very Stony Sandy Loams, 15-25% slopes (DlD) and the Dekalb Channery Loams (DbD2 / DbC2). The soils are composed mainly of sandstone. These soils are moderately deep and well drained with slight equipment limitations elevating to moderate with slope and primarily associated with a high water table. 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 per the Department's Best Management Practices and rutting guidelines.

Recreation Resources: No developed recreational resources are located within the stand. The East Shale Road ORV Trail / Northernmost segment of the Meadow Mountain Trail will serve as the haul road for the harvest.

Management and Silvicultural Recommendations:

The proposed silvicultural treatment for this site is a commercial thinning given that competitive regeneration is hindered and the stand is overstocked. A crown thinning will be implemented, removing approximately 80 ft^2 of basal area per acre and reducing the residual basal area to 70-80 ft^2. Removals will be concentrated on undesirable growing stock in the medium sawtimber size class coupled with mature individual trees that will afford large canopy gaps and facilitate regeneration establishment in the understory. Estimated yield for the thinning is approximately 4,000 board feet per acre. Residual trees will benefit from the improved spacing post-harvest with increased vigor, growth rates and overall stand health. Retention will favor small and medium sawtimber trees of superior form and health to facilitate seedling establishment of the future stand. The process of the timber harvest should break the mid-story canopy of undesirable tall-woody interference and afford additional sunlight to the understory and established regeneration which is currently suppressed. Post-harvest monitoring will be conducted to determine if the present regeneration has responded to the thinning and if additional regeneration has established on the site. The long-term goal for the site is to have a desirable cohort of regeneration occupying the site when a final removal harvest is conducted to release the regeneration as the new stand of trees.


Savage River State Forest
FY 2025 AWP Proposals
East Shale Hardwood Thinning
N
MARYLAND
FOREST SERVICE
East Shale Road
Stand 1
Wolf Swamp ESA
Skid Road
to be Improved
to Haul Road
Stand 2
Stand 2
Compartment 15 Stand 15
Management Area: 31 Acres
Area Harvested: 31 Acres
Basal Area: 158FT²
Relative Density: 93%
Target: 70-80FT²
Stand 1
Compartment 15 Stands 41,42&51
Management Area: 39 Acres
Area Harvested: 39 Acres
Basal Area: 166FT²
Relative Density: 102%
Target: 70-80FT²
79°05'12.745" W
39°40'52.728" N
Interstate 68
Chestnut R
Lower New Germany Rd.
West Shale Road
Blue Lick Rd.
Landing
Haul Road
East Shale HW Stand 1
East Shale HW Stand 2
Savage River SF Boundary
Old Growth Ecosystem Area
Ecologically Significant Areas
Old Growth
SRSF Wildlands
streams and 50' buffers
Wetlands of State Concern
1 inch = 667 feet
1:8,000
0 200 400 800 1,200 1,600
Feet
MARYLAND
DEPARTMENT OF
NATURAL RESOURCES



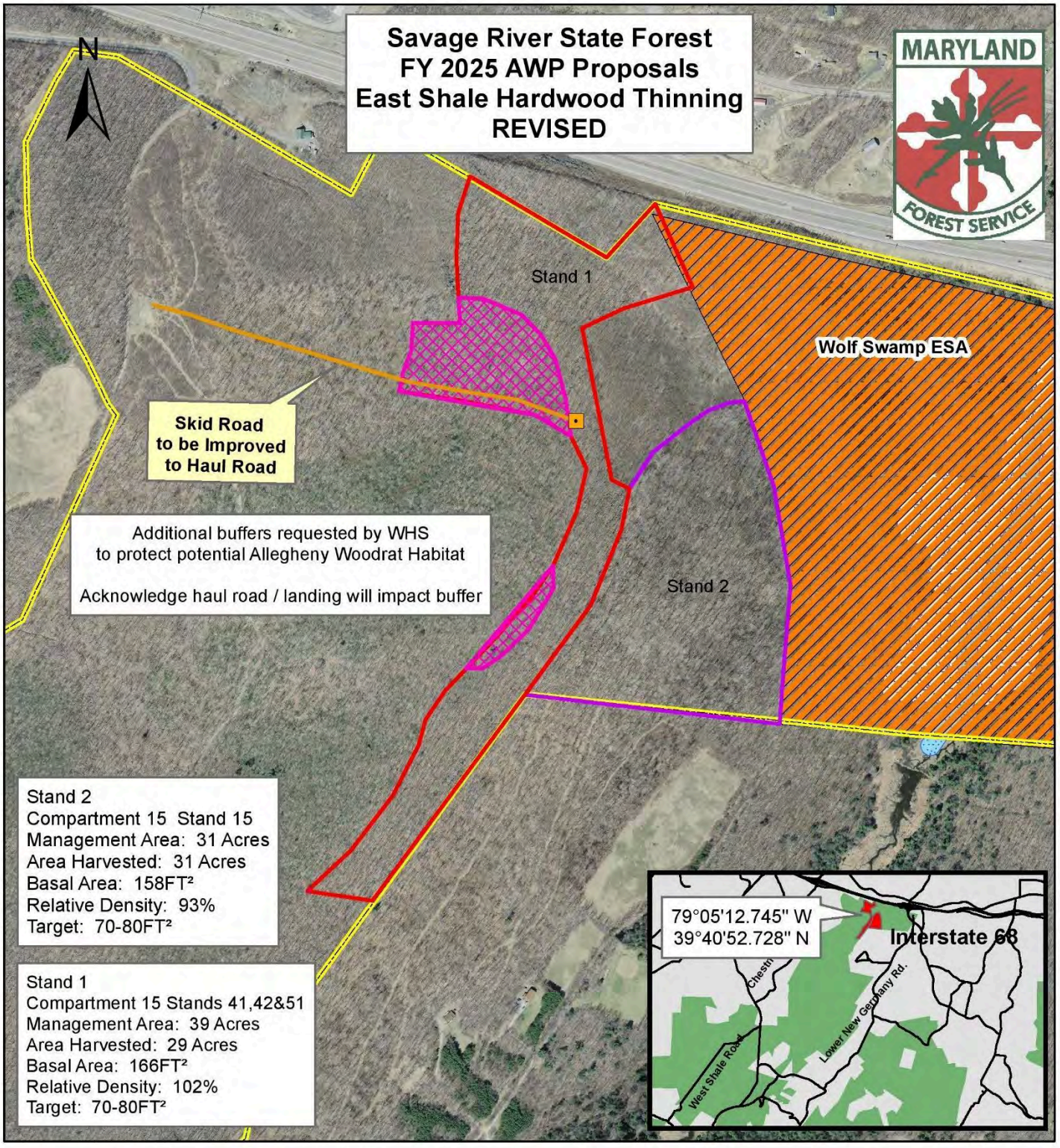
- Landing
- Haul Road
- East Shale HW Stand 1
- East Shale HW Stand 2
- Savage River SF Boundary
- Old Growth Ecosystem Area
- Ecologically Significant Areas
- Old Growth
- SRSF Wildlands
- streams and 50' buffers
- Wetlands of State Concern

1 inch = 667 feet

1:8,000

0 200 400 800 1,200 1,600 Feet

MARYLAND DEPARTMENT OF NATURAL RESOURCES



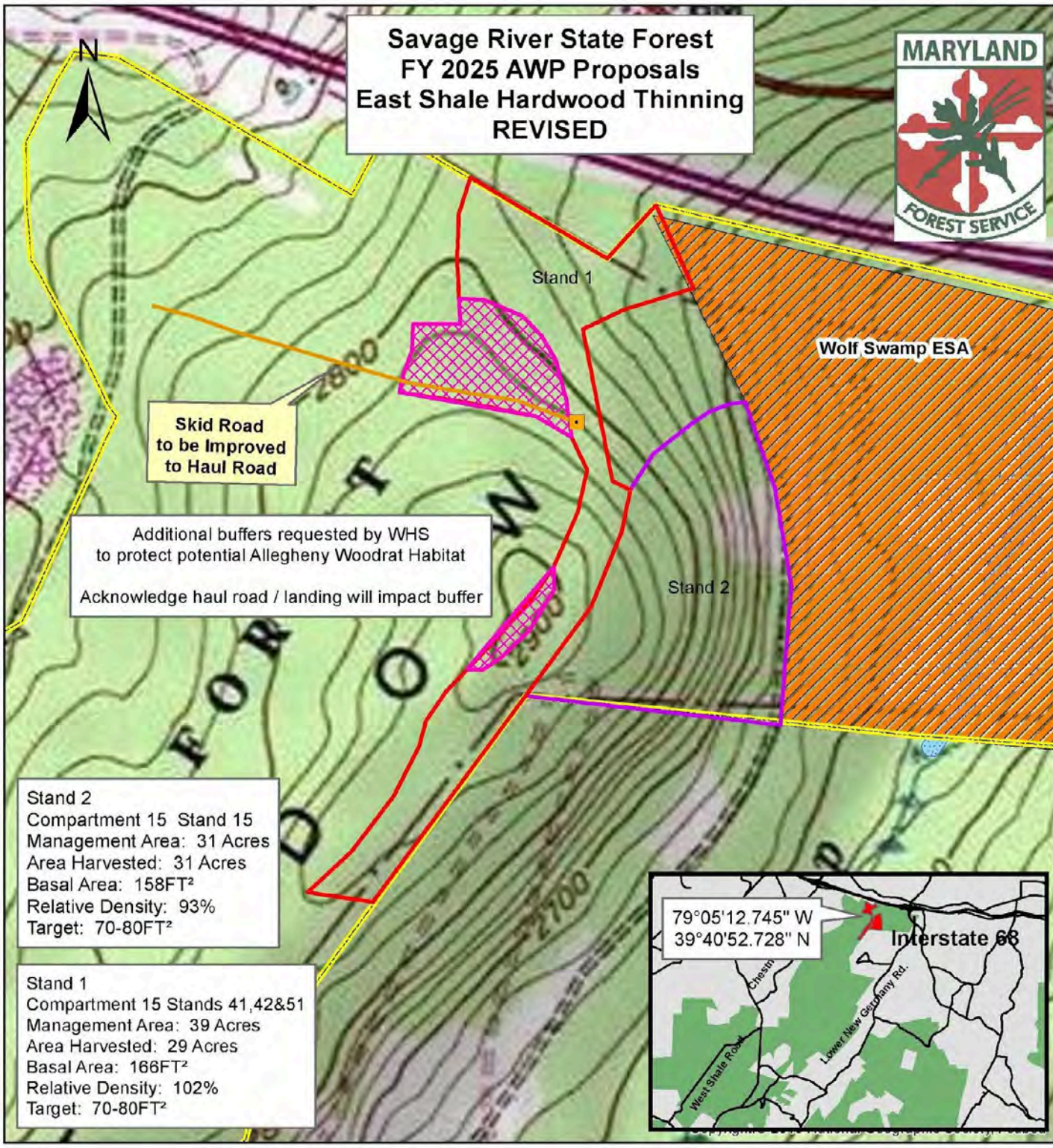
- Landing
- Haul Road
- Buffers
- East Shale HW Stand 1
- East Shale HW Stand 2
- Savage River SF Boundary
- Old Growth Ecosystem Area
- Ecologically Significant Areas
- Old Growth
- SRSF Wildlands
- streams and 50' buffers
- Wetlands of State Concern

1 inch = 667 feet

1:8,000

0 200 400 800 1,200 1,600 Feet

MARYLAND DEPARTMENT OF NATURAL RESOURCES



Landing
Haul Road
Buffers
East Shale HW Stand 1
East Shale HW Stand 2
Savage River SF Boundary

Old Growth Ecosystem Area
Ecologically Significant Areas
Old Growth
SRSF Wildlands
streams and 50' buffers
Wetlands of State Concern

1 inch = 667 feet
1:8,000
0 200 400 800 1,200 1,600
Feet

MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

COMPARTMENT 20 – Stands 1 & 13-17 **FY-25**

Description / Resource Impact Assessment

Location: This harvest proposal is located north of Blue Lick Road in compartment 20 of Savage River State Forest. Access will be by way of an existing haul road. Haul road entrance is approximately 0.75 miles southwest of the intersection of Blue Lick Road with Avilton-Lonaconing Road.

Forest Community Type and Condition: This 41-acre site contains a medium sawtimber mixed oak stand that is approximately 88 years old with an average merchantable diameter of 14.0 inches. The overstory consists of northern red oak (22%), red maple (22%), eastern hemlock (15%), white oak (13%), chestnut oak (8%) and black cherry (5%). The stocking in this stand is at 115% relative density with a basal area of 161 ft^2/acre and 549 trees per acre. The stand is currently overstocked with unacceptable growing stock (UGS) accounting for over 25% of the basal area. Desirable regeneration is currently present but suppressed by a thick mid-story layer of undesirable tall-woody interference. A significant portion of the current regeneration is established oak seedlings greater than three feet in height along with saplings and poles.

Interfering Elements: Interfering understory plant competition is sufficient to cause complications in desirable regeneration efforts with the majority of the site containing some form of significant interference. This interference coupled with the tight canopy of the mature overstory trees is significantly hindering regeneration within the stand. Tall woody interference occupies approximately 65% of the stand consisting primarily of witch-hazel, beech and sweet birch. Low woody interference occupies approximately 50% of the site, consisting primarily of mountain laurel. Rhizomatous fern interference was noted to be a minimal issue while only affecting 5% of the site.

In addition to interfering vegetation, the presence of white-tailed deer can have a negative influence on the regeneration success of the stand. Overbrowsing can facilitate failure of desirable seedling establishment and in extreme cases shift in species composition dominated by undesirable tree species. Field evaluations of the site estimated deer browse impact to be moderate. Monitoring of deer browse impacts will coincide with regeneration inventories to determine if additional measures need to be implemented to reduce deer herbivory and increase the likelihood of regeneration establishment on the site.

Historic Conditions: State Forest records indicate that the proposal area has not been harvested since state acquisition. Several stands on the opposite side of Blue Lick road were regenerated in 2002 and 2006. No evidence of fire was observed during the stand inventory.

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: The management proposal does not contain any HCVF areas, but the southern boundary of the proposal borders the streamside management zone on Blue Lick. Plans are already in place to buffer an additional section of the slope above

Blue Lick (in addition to the established 50 foot buffer) due to the steep nature of the ground in this area.

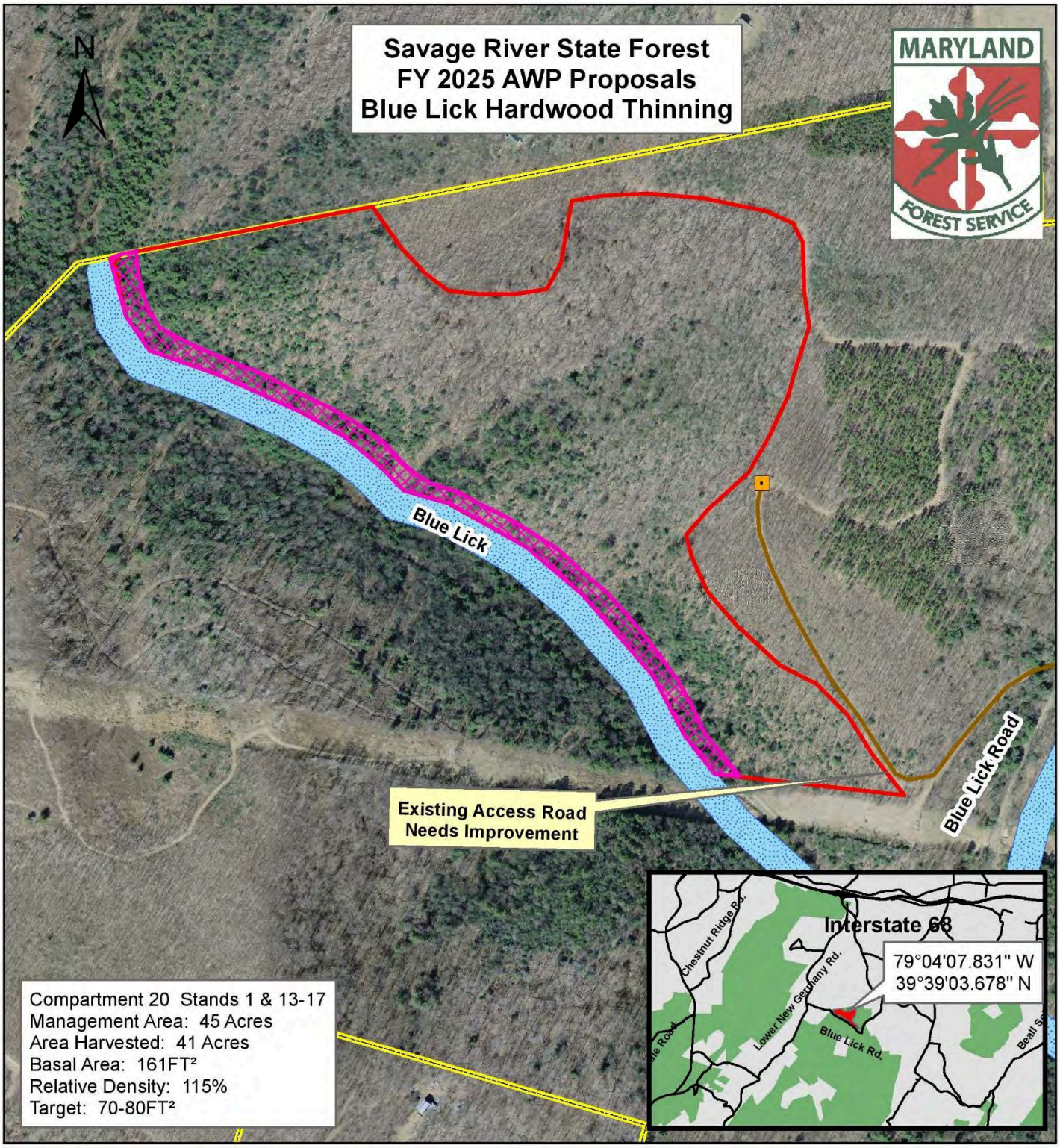
Water Resources: This stand drains southwest into Blue Lick within the Savage River Watershed. The proposed silvicultural treatments will be outside of all HCVF stream buffers and designated wetland areas. No heavy equipment will be permitted within the protective riparian buffers of any streams or associated wetlands per the requirements set forth in the State Forests Sustainable Forest Management Plan.

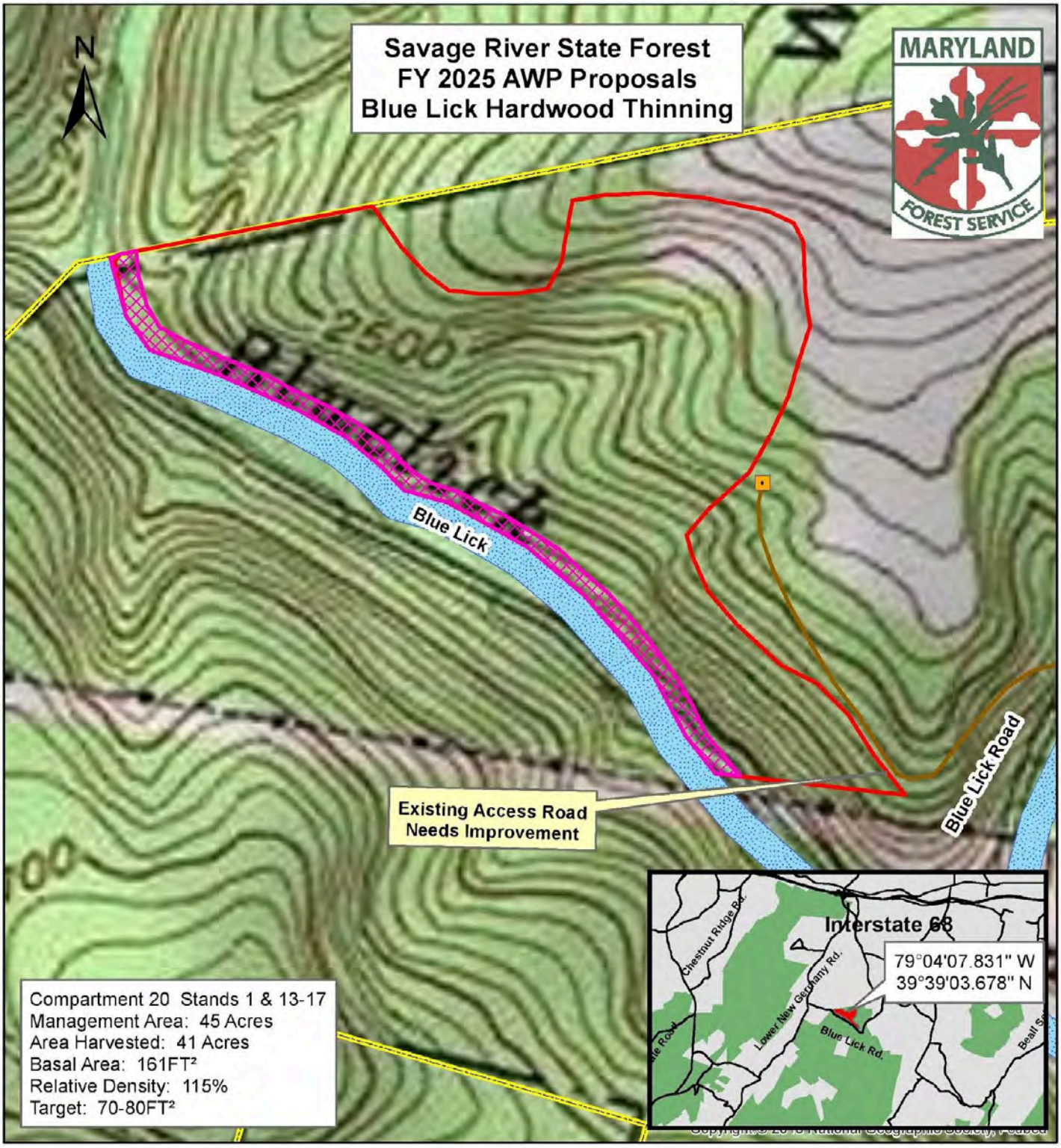
Soil Resources: The predominant soil types of the site are Calvin and Lehew Channery Loams, 30-50% slopes (ClE) along with Calvin, Ungers & Lehew Channery Loams, 20-35% Slopes (CnD2). These soils are generally moderately deep over bedrock, moderately textured and well drained. Degree of slope ranges from 10-35% throughout the site. Equipment limits range from moderate to severe. Hazard of erosion is moderate to extreme on steeper slopes. The site has very good productivity for woodland management, with a site index of 75-85 for upland oaks on north aspects. Windthrow hazard is slight and competition is moderate for hardwood regeneration. 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: No developed recreational resources are located within the stand. The access road for the stand is primarily utilized for hunting access. Hunting opportunities may be disrupted for the duration of the harvest and access to the site may be limited depending on the timing of the harvest.

Management and Silvicultural Recommendations:

The proposed silvicultural treatment for this site is a commercial thinning given that competitive regeneration is present but suppressed and the overstory contains a significant component of undesirable growing stock (UGS). A crown thinning will be implemented, removing approximately 80 ft^2 of basal area per acre and reducing the residual basal area to 70-80 ft^2. Removals will be concentrated on undesirable growing stock in the medium sawtimber size class coupled with mature individual trees that will afford large canopy gaps and facilitate regeneration establishment in the understory. Estimated yield for the thinning is approximately 4,000 board feet per acre. Residual trees will benefit from the improved spacing post-harvest with increased vigor, growth rates and overall stand health. Retention will favor small and medium sawtimber trees of superior form and health to facilitate seedling establishment of the future stand. The process of the timber harvest should break the mid-story canopy of undesirable tall-woody interference and afford additional sunlight to the understory and established regeneration which is currently suppressed. It was also observed that the midstory contained many conifer saplings and poles (hemlock and white pine). These shade tolerant conifers should respond to the thinning and the hopes are to facilitate a mixed conifer / hardwood stand for the future. Post-harvest monitoring will be conducted to determine if the present regeneration has responded to the thinning and if additional regeneration has established on the site. The long-term goal for the site is to have a desirable cohort of regeneration occupying the site when a final removal harvest is conducted to release the regeneration as the new stand of trees.


Savage River State Forest
FY 2025 AWP Proposals
Blue Lick Hardwood Thinning
N
MARYLAND
FOREST SERVICE
Blue Lick
Existing Access Road
Needs Improvement
Blue Lick Road
Compartment 20 Stands 1 & 13-17
Management Area: 45 Acres
Area Harvested: 41 Acres
Basal Area: 161FT²
Relative Density: 115%
Target: 70-80FT²
Interstate 68
Chestnut Ridge Rd.
Lower New Germany Rd.
Blue Lick Rd.
79°04'07.831" W
39°39'03.678" N
Landing
Haul Road
Buffer
Blue Lick HW Thinning
Savage River SF Boundary
Old Growth Ecosystem Area
Ecologically Significant Areas
Old Growth
SRSF Wildlands
streams and 50' buffers
Wetlands of State Concern
1 inch = 417 feet
1:5,000
0 125 250 500 750 1,000
Feet
MARYLAND
DEPARTMENT OF
NATURAL RESOURCES



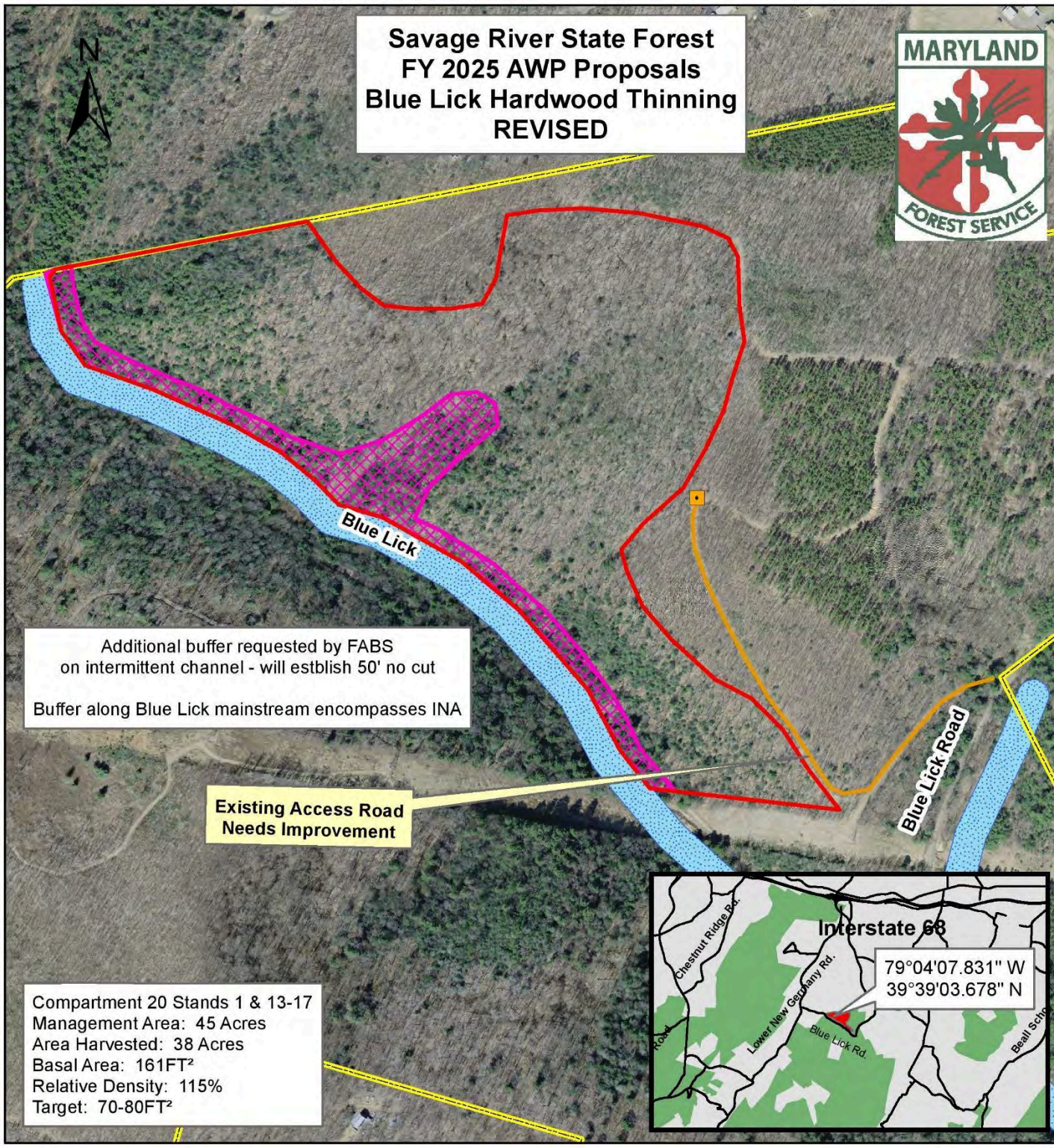
- Landing
- Haul Road
- Buffer
- Blue Lick HW Thinning
- Savage River SF Boundary
- Old Growth Ecosystem Area
- Ecologically Significant Areas
- Old Growth
- SRSF Wildlands
- streams and 50' buffers
- Wetlands of State Concern

1 inch = 417 feet

1:5,000

0 125 250 500 750 1,000 Feet

MARYLAND DEPARTMENT OF NATURAL RESOURCES



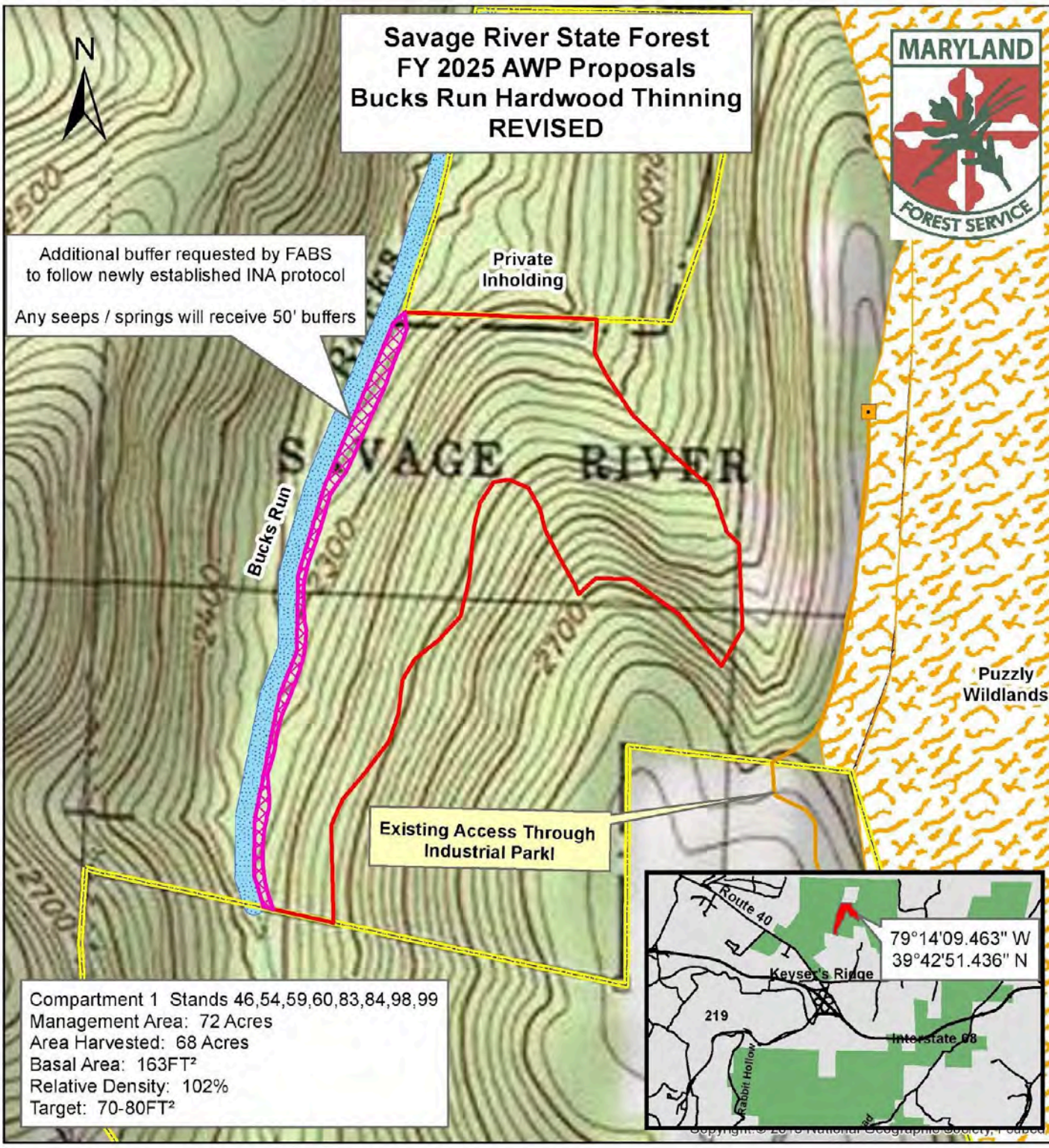
- Landing
- Haul Road
- Blue Lick HW Thinning
- Buffer
- Savage River SF Boundary
- Old Growth Ecosystem Area
- Ecologically Significant Areas
- Old Growth
- SRSF Wildlands
- streams and 50' buffers
- Wetlands of State Concern

1 inch = 417 feet

1:5,000

0 125 250 500 750 1,000 Feet

MARYLAND DEPARTMENT OF NATURAL RESOURCES



Landing
Haul Road
Buffer
Sines Place HW Thinning
Savage River SF Boundary

Old Growth Ecosystem Area
Ecologically Significant Areas
Old Growth
SRSF Wildlands
streams and 50' buffers
Wetlands of State Concern

1 inch = 667 feet
1:8,000
0 212.5 425 850 1,275 1,700 Feet

MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Operational Management and Budget Summary

A. Introduction
B. Funding Sources
C. Operational Cost

Submitted Budget Request

The submitted annual budget for Savage River State Forest totals $704,076.00. Of that amount, $435,717 goes to fund classified salaries and benefits for five employees; $176,820.00 funds four contractual employees and $91,539 for forest operations. Savage River has generated revenue that greatly exceeded its cost of operation for many years. The majority of revenue is obtained from the sale of forest products. 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.

Operational Management

A. Introduction

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

The following information is a breakdown of Revenues and Operational costs associated with SRSF. 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-2024.

B. SRSF Funding Sources: Estimated - *$704,076*

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 particular 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. Savage River State Forest has no active / open Recreational Trail Grant requests for FY25.

C. Operational Cost: Estimated Annual Expenses - *$704,076*

Operational expenses are those costs paid directly out of the Savage River 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-2025 budget proposal was prepared in August of 2023.

▪ *Classified Salaries, Wages and Benefits: $435,717*

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 along with our Western Region Trails Planner.

▪ *Contractual Staffing: $176,820*

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, a public shooting range, overlooks, wildlife habitat areas, and implementing all maintenance, recreational, silviculture and ecosystem restoration projects.

▪ *Land Operation Costs: $91,539*

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 Savage River State Forest. As described, these figures will vary from year to year. A more detailed picture on revenues and operational cost will be reviewed quarterly as the actual picture develops within implementation of Annual Work Plan and as operating budgets are approved

XII. Appendices

Appendix 1: Japanese Knotweed Management Plan

Savage River State Forest Invasive Plant Management:
Japanese Knotweed (Fallopia japonica)

Description:

Several areas of Savage River State Forest have become infested with the invasive plant Japanese knotweed (*Fallopia japonica*). The number of treatment areas that have been delineated (See Invasive Species Management Map, p.19) continues to grow and those of manageable size 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. Knotweed growth near the Savage River Reservoir has reached a critical level and will not be treated at this time due to the overwhelming investment that would be required to reach any reasonable level of control. As more effective treatment methods become available for large areas, this area will be reevaluated in regard to implementing a control plan.

Japanese knotweed is a fast-growing, herbaceous, rhizomatous perennial that forms dense patches and shades out all nearly all native species. The plant originated in East Asia and was imported as an ornamental in the late 1800's. Also called Mexican bamboo, fleece flower, hu zhang, the plant can grow to heights of greater than 10 feet and can inhabit almost any terrestrial environment whether shaded or in full sunlight. It is difficult to control due to the massive number of seeds that are produced and the rhizomatous adaptation of the plant. Multiple applications of mechanical and chemical control as well as diligent monitoring will be necessary to control the spread of the plant in natural forest environments. There is no projected end date for the herbicide treatments due to the persistent nature of this plant and efforts will be made annually until the spread of the plant is contained or eradicated from the identified areas.

Treatment:

The initial treatments occurred in the first week of June, 2011 at campsite 171 on Rabbit Hollow Road and on Fairview Road approximately one mile from the intersection with New Germany Road. Both locations have small populations of knotweed. 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 two areas has been repeated on a yearly basis and other areas of infestation that are considered manageable are added to the treatment regime as they are discovered.

Several new areas have been added to the management plan including three patches adjacent to Route 495, just north of the intersection with New Germany Road, two patches located on Westernport and Aaron's Run Road, just south of the High Rock Tower, one small patch adjacent to the Handicapped Hunter Road on West Shale Road and a large occurrence along New Germany Road located approximately one mile north of the state forest headquarters. Product application is/was conducted by registered employees working under the license of a certified applicator permit (Permit No. 30914-77618; Categories 2 and 6). The next scheduled mechanical treatment will occur June 2022 followed by the herbicide treatment in July 2022.

Treatment Schedule		
Monitoring	Mechanical	Chemical
March – June 2018	June 1, 2018	July 27, 2018
March – June 2019	June 1, 2019	July 27, 2019
March – June 2020	June 1, 2020*	July 27, 2020*
March – June 2021	June 1, 2021*	July 27, 2021*
March – June 2022	June 1, 2022*	July 27, 2022*
March – June 2023	June 1, 2023	As needed

* Treatment schedules may be altered/eliminated depending on the efficacy of the previous treatment applications.

Appendix 2: 10-Year Timber Harvest Summary Table

Fiscal Year	*Planned Harvest*	*Bd. Ft. Vol. Harvested*	*Gross value*
2014	**1,020,000 BD FT**	**521,526**	**$72,689.77**
2015	**1,020,000 BD FT**	**1,286,994**	**$275,126.44**
2016	**1,000,000 BD FT**	**941,285**	**$225,796.59**
2017	**1,200,000 BD FT**	**853,347**	**$248,487.50**
2018	**1,200,000 BD FT**	**1,152,074**	**$205,100.00**
2019	**1,200,000 BD FT**	**1,406,680**	**$401,481.00**
2020	**1,200,000 BD FT**	**1,161,591**	**$304,172.62**
2021	**1,200,000 BD FT**	**784,520**	**$289,280.00**
2022	**1,200,000 BD FT**	**1,354,237**	**$526,109.00**
2023	**1,200,000 BD FT**	**867,013**	**$271,150.00**

Appendix 3: 2022 SFI / FSC Audit Summary

Summary: SRSF was the focus of the FY23 dual party surveillance audit. This was the first year since certification that we were found to be in total compliance with no opportunities for improvement or corrective action requests.

Appendix 4: Interdisciplinary Team Review and Comments

Maryland Department of Natural Resources State Forests

Savage River State Forest
FY-25 Annual Work Plan
ID Team Review
In-person meeting not applicable – members provided electronic copy for review

ID Team Members: Leonard Cage (MDE), Seth Moessinger (Fisheries), Sean Nolan (SRSF), Erin Thomas (Parks), Megan Zagorski (WHS), George Eberling (MFS), Rick Latshaw (Wildlife), Mike Friend (NRP), Rob Feldt (MFS)

Individual Agency Comments:

Heritage Service:
Amish Run
We have no concerns in stands 2 and 3. In stand 1, we ask that hemlock be retained; it occurred sparsely in a few areas. We also request that no cut buffers be applied to the following three sensitive areas:

- The first is a boulder field along the west side of the upper tributary to the Casselman River, at roughly 39.65192, -79.22576. This mossy boulder field within a mature, mesic forest provides potential habitat for two rare small mammals, the smoky shrew (*Sorex fumeus*) and long-tailed shrew (*Sorex dispar*), both of which are state listed as In Need of Conservation. To maintain this habitat, we request that no cutting occur within 50 m downstream, 100 m upstream and 30 m to the west of the coordinates provided above.

- There is a small, presumably manmade vernal pool at 39.65078, -79.22585. We request that the standard vernal pool buffer, as described in the Savage River State Forest Management Plan, be applied to this area.

- There is a high quality seepage wetland at roughly 39.65106, -79.22617, with its emergence located at approximately 39.65132, -79.22646 (NOTE: this wetland may be among the seeps listed in FABS comments for this site). This wetland, in turn, forms the headwaters to an intermittent stream flowing NE into the unnamed perennial stream mentioned above. In the wetland, we documented seal salamanders (*Desmognathus monticola*) a central Appalachian endemic and Species of Greatest Conservation Need (SGCN). The area may also support two other SGCN salamanders, the northern red salamander (*Pseudotriton ruber*) and spring salamander (*Gyrinophilus porphyriticus*), and several SGCN spiketail dragonflies (genus *Cordelugaster*) that are also watchlist species or state rare. Although none of these species are state listed, we ask that a 50’ no cut buffer (plus 4’ for each % slope) be provided to the seepage wetland and associated intermittent stream to maintain suitable habitat for these SGCN’s and to help protect coldwater resources in the Casselman River and Tributaries INA.

Lastly, we concur with the FABS recommendation to maintain a 100' no cut buffer along the unnamed perennial stream that forms the eastern border of stand 1. Flowing into the North Branch of the Casselman River, this stream is located within the Casselman River and Tributaries INA. The buffer will help maintain this INA's coldwater resources including multiple rare, threatened and endangered species.

Blue Lick

Blue Lick forms part of the Savage River and Tributaries INA, which is a high quality coldwater stream system that supports brook trout and multiple rare, threatened and endangered species. To protect these coldwater resources, we concur with the FABS recommendations to provide a 100' no cut buffer along Blue Lick and a 50' no cut buffer (plus 4' for each % slope) along the intermittent/ephemeral tributary flowing SW into Blue Lick (see coordinates in FABS comments).

It's good to hear that hemlock and white pine will be retained to facilitate the establishment of a mixed stand. This, along with the stream buffers mentioned above, will help maintain habitat for a number of species that, although not state listed, are SGCN's. This includes multiple forest interior breeding bird species (e.g., Canada warbler, black-throated blue warbler) and northern pygmy clubtail (*Lanthus parvulus*), a state rare dragonfly that requires high quality, cold montane headwater streams.

Bowman Hill

We observed Japanese barberry and Japanese stiltgrass in this stand and ask that you apply invasive species BMPs such as washing equipment before entering the site and conducting pre- and post-harvest treatments.

Bucks Run

Given the INA designation for Bucks Run, which is a high quality coldwater stream that supports brook trout, we concur with FABS recommendations to provide a 100' no cut buffer along Bucks Run and a 50' no cut buffer (plus 4' for each % slope) along the unnamed tributary flowing NW into Bucks Run.

We also concur with FABS on providing a 50' no cut buffer (plus 4' for each % slope) along the seepage wetlands listed in their comments and any other seeps that may be present. In addition to helping maintain coldwater resources in Bucks Run, the seepage wetlands provide potential habitat for several SGCN salamanders (northern red salamander (*Pseudotriton ruber*), spring salamander (*Gyrinophilus porphyriticus*) and seal salamander (*Desmognathus monticola*) and spiketail dragonflies (genus *Cordelugaster*) that are also watchlist species or state rare.

Japanese barberry was observed in the proposed cut and ask that you follow invasive plant control BMPs including conducting pre- and post-harvest treatment and washing equipment before entering the site.

East Shale

In stand 1, there is a small rock outcrop on the western border of the proposed cut where Allegheny Woodrat (*Neotoma magister*), a State Endangered species, has been documented. A 200 m no cut buffer around the outcrop is recommended. We also request that white pine be retained to help restore this conifer; small numbers of saplings and small pole sized trees were observed in a few areas, including near the small outcrop. We have no concerns with stand 2.

Extensive areas of Japanese stiltgrass were found along the presumed haul road. We ask that invasive species control BMPs be used, including washing equipment before entering the site and pre- and post-treatment.

Regarding the woodrat recommendation, please note that this species has undergone a severe decline throughout most of its range. The causes of the decline are complex and include habitat loss, fragmentation, loss of important food resources (e.g., American chestnut, oak decline) and disease (e.g., raccoon roundworm). It's former Maryland range included scattered rock outcrops and talus slopes along Meadow Mountain, primarily along the ridge crest. Today, the entire Meadow Mountain metapopulation, including the East Shale subpopulation, is likely extirpated. However, this site and others along Meadow Mountain still appear to contain some suitable habitat. We are now participating in a regional effort to restore woodrats to their former range through a combination of captive rearing, reintroduction and population augmentation. Although it will take many years of effort, we hope to some day restore woodrats to Meadow Mountain. In the meantime, the no cut buffer will help maintain the old forest/outcrop conditions needed by this species and, over time, habitat conditions should improve with increasing food resources (e.g., greater mast production by chestnut oak, northern red oak, black cherry) and higher quality foraging and dispersal habitat (e.g., increased forest structural diversity, greater amounts of large coarse woody debris).

Fishing and Boating Services:
MDNR FABS Comments - SRSF FY25 AWP Silviculture Proposals
10/17/2023
DNR FABS has reviewed the 2025 AWP for Savage River State Forest. At several locations, the plan calls for timber harvests within close proximity to known brook trout and cold water resources recently identified as Irreplaceable Natural Areas (INAs). To ensure that these aquatic resources are protected as intended through INA designation, FABS has the following comments listed below as general comments and/or broken down by harvest location.
General -
Largely to gain a better understanding/the learn more about MFS sustainable certification, FABS requests more information on how MFS identifies HCVF buffers according to sustainable forest certification guidelines. Language related to water quality within individual harvest descriptions includes mention of avoiding HCVF buffers and wetlands. Do HCVF buffers include features not
identified within the maps provided? Through site visits to relevant harvest locations, FABS has identified both perennial streams and seeps that are unmapped. Does sustainable forest certification require that these areas be avoided during harvest? A better understanding will influence how we comment in the future.
Bucks Run Hardwood Thinning -
Bucks Run has recently been designated as an INA. The target species for the INA is brook trout with compatible uses including timber harvest only when deemed not to impact habitat conditions for the target species. Incompatible uses include alterations in hydrology, vegetation, or other habitat features not designed to benefit the target resource. To avoid impacts associated with siltation, a known stressor for brook trout, FABS recommends that no cutting occur within the Bucks Run INA, defined, as FABS understands it, as 100' on each side of the stream channel.

A perennial stream was identified in the field with the head of the channel located here: 39.71163, 79.23797. The stream flows in a northwesterly direction until it crosses the state property boundary onto the private inholding outlined in yellow on the map provided. If not already planned, a 50’ (plus 4’ per % slope) no cut buffer should be established to protect this tributary to Bucks Run.
50’ (plus 4’ per % slope) no cut buffers should also be afforded to the following field identified seeps following their flow path from the head of the seep to their downstream confluence with Bucks Run and/or the above described tributary:
Head of seep: 39.71533, -79.24193
Head of seep: 39.71539, -79.24167
Head of seep: 39.70988, -79.24606
Head of seep: 39.70879, -79.24622
Head of seep: 39.70847, -79.24654

As stated within the provided Bucks Run harvest description, no heavy equipment should be used within protective buffers. Any other field identified seeps that may have been missed by FABS staff during a site visit should also be afforded standard 50’(plus 4’ per % slope) no cut buffers.
Amish Road Hardwood Combination -
Stand one and two of the proposed harvest are located adjacent to an unnamed tributary to the North Branch of the Casselman River. The reach has been designated as an INA with key habitats to include the coldwater stream. FABS recommends that no cutting occur within the Casselman River and Tributaries INA, defined as 100’ on each side of the stream channel, to protect coldwater resources from the impacts of siltation and elevated temperatures.
50’ (plus 4’ per % slope) no cut buffers should also be afforded to the following field identified seeps following their flow path from the head of the seep to their downstream confluence:
Spring: 39.65422, -79.22860
Two altered seeps: 39.65124, -79.22574
Seep: 39.65118, -79.22637
Head of seep: 39.65044, -79.22570
Head of seep: 39.65065, -79.22709
As stated within the Bucks Run harvest description, no heavy equipment should be used within protective buffers.
Blue Lick Hardwood Thinning -
FABS recommends that no cutting occur within the Savage River and Tributaries INA, defined as
100’ on each side of the stream channel. The proposed timber harvest includes a 50’ buffer plus an additional buffer highlighted in pink on the provided map. This no cut buffer should be verified to be a minimum of 100’ from the stream’s edge to comply with the INA designation. During a site visit, FABS staff also identified an intermittent/ephemeral stream channel within the proposed harvest location (39.65131, -79.07242). Because incompatible uses for the INA include alterations to hydrology/habitat that negatively affect a target species (brook trout), FABS recommends establishing a 50’ (plus 4’ per % slope) for the intermittent channel from head to confluence. This will aid in preventing siltation which negatively impacts stream substrates that are integral to brook trout spawning and act as habitat for aquatic macroinvertebrates, a food source.

Bowman Hill Hardwood Regeneration and East Shale Hardwood Thinning -
Maps for both East Shale and Bowman Hill do not indicate that proposed timber harvests are located within close proximity to flowing streams. Accordingly, FABS does not have any major

concerns. FABS requests that a 50' (plus 4' per % slope) be afforded to any seeps identified in the field by MFS staff and/or contractors involved in the project.
Thanks for the opportunity to provide comments. Please reach out with any follow up questions or concerns. FABS staff are open to attending site visits if viewed as an easier way to address concerns.

Western Region Trails Planner:
East Shale Rd. Stand 1 & 2:
- Please post signs on the ORV/snowmobile trail (East Shale Rd.) indicating that there is an active timber harvest in progress to alert trail users of the activity.
- If the harvest will take place between Dec 15 and March 15, the East Shale Rd. section of the Meadow Mountain Snowmobile Trail should be closed to users.
- Since the trail will be used as the haul road, please include trail maintenance/stabilization in the close out language.
- Please consider adding a map and a warning to the SRSF website to alert trail users of the activity.

Bowman Hill North:
- You've already addressed potential impacts to snowmobilers in your narrative.
- Because this trail network is also open to hikers and bikers, please post signs to warn users of timber harvest activity or plan to close the trail during the harvest.
- Since the trail will be used as the haul road, please include trail maintenance/stabilization in the close out language.
- Please consider adding a map and a warning to the SRSF website to alert trail users of the activity.

I don't have any comments on the other project proposals.

Maryland Department of Environment
1. Review your SMZ ("stream buffer") widths to ensure that they are at least the minimum required (50 ft +2 ft*slope %). Some of your stands appear to have fairly steep slopes near stream channels.
2. Be sure that haul roads and skid trails are on contour. It isn't exactly clear in your maps.

Maryland Park Service, Wildlife Service & Natural Resources Police
- Approved proposals without specific comments

3/15/2024

MEMORANDUM

To: Sean Nolan
Maryland Forest Service

From: Megan Zagorski
Natural Heritage Program
Wildlife and Heritage Service

CC: Katharine McCarthy and James McCann
Natural Heritage Program
Wildlife and Heritage

Re: Savage River State Forest FY25 East Shale Road Proposed Timber Harvest
Natural Heritage Program Comments

Thank you for meeting with me on March 1, 2024. to discuss the Allegheny woodrat habitat, the proposed harvest, and walk the flagged habitat boundary at the proposed East Shale Road (FY 25) timber harvest.

Following the March 1st visit and further study of aerial imagery, I mapped the core denning habitat in the field on March 8th (see attached map). This core area has the deep interconnected crevices and rock structure used by Allegheny woodrats for building nests and middens and is partially surrounded by a rhododendron thicket that would provide additional cover for individuals. It is now apparent that the Element Occurrence in our database that we were referencing during our initial field visit in the fall is not the center of the habitat and is instead part of the foraging area around the main outcrop. This area is still important in providing food for woodrats but would be unlikely to hold dens or middens. I will send the ground-truthed location to our database managers to update our database. Although the haul road is only 50 m north of the northernmost extent of the rock habitat, the Natural Heritage Program will not request any modifications to the location of the haul road. The talus in this northern rock spur is only open on the western edge of the ridge and has smaller crevices, making it suboptimal denning habitat. The best denning habitat is in the main body of the outcrop to the southeast.

The Natural Heritage Program will not request modifications to a skid trail proposed between the flagged habitat boundary and the state forest boundary to provide access to the southern portion of Stand 1. Per the discussion on March 1st, we request that the mapped core woodrat habitat to the northwest plus a 200-m buffer be excluded from future timber harvests. We reached this decision based on several factors:

- Although the proximity of the skid trail to the rock habitat is a concern, the bulk of the woodrat habitat is to the northwest of the flagged boundary and will not be disturbed.
- The proposed silvicultural activities, particularly retention of oaks, will benefit woodrats and other wildlife.
- The area to the south of the habitat boundary is fairly small, and thus will require fewer trips, limiting the direct disturbance from the skid trail.

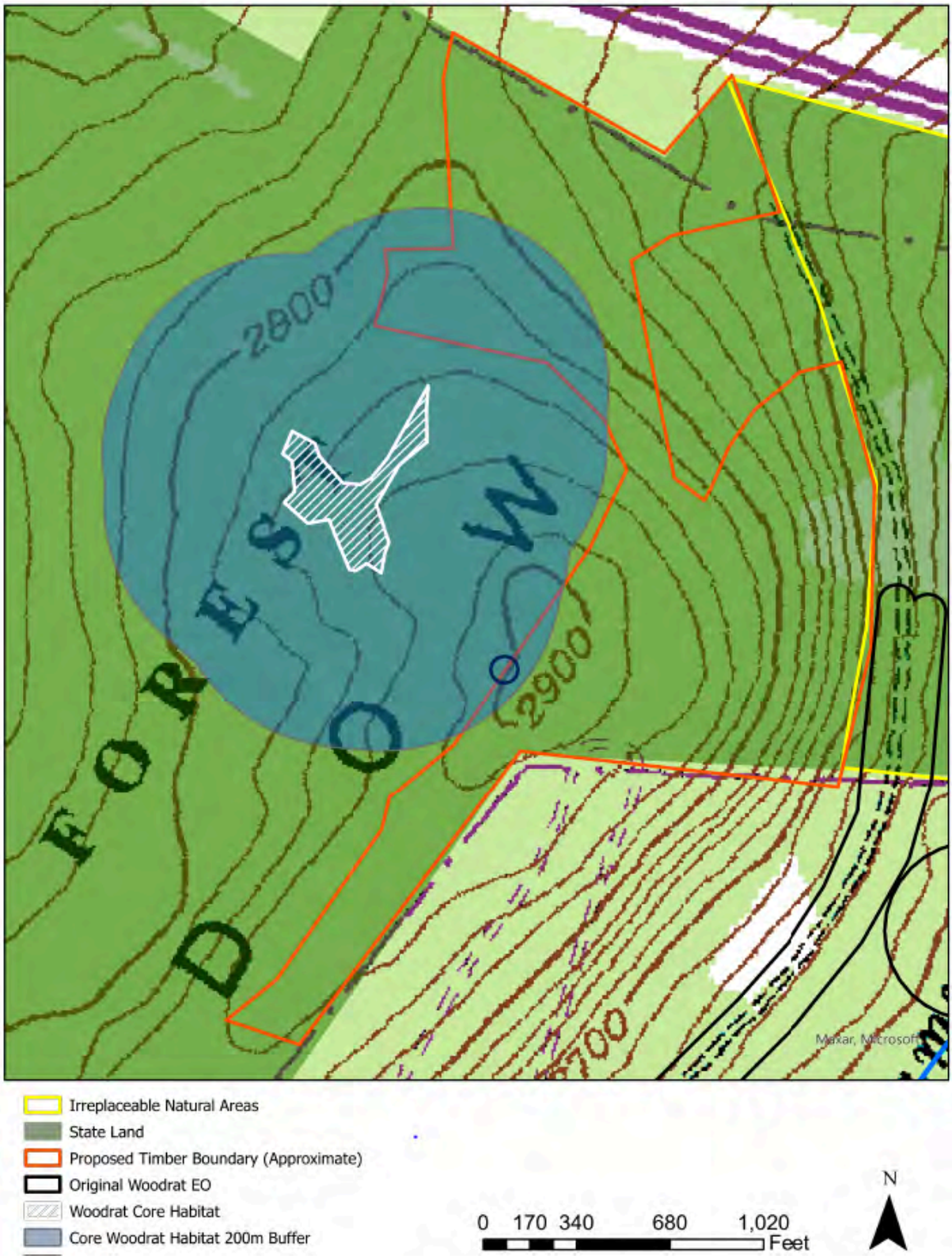
- Although recent surveys have not been conducted at this location, the site is likely currently unoccupied.
- This site is impacted by forest fragmentation to the west and to the north. Forest fragmentation is detrimental to woodrats because it can increase the presence of predators and raccoons, which can carry raccoon roundworm, a parasite that has been implicated as a contributing factor in the woodrat decline. This site is also less than 0.5 mile off I-68 and Route 40, two major highways that may act as a barrier to woodrats moving farther north along Meadow Mountain, making it a poor candidate for the initial phase of population augmentation and reintroduction.

With the creation and use of haul roads and skid trails, the introduction of invasive species is always a concern. We request that invasive species BMPs are followed, including cleaning equipment before entering the site, pre- and post-harvest monitoring of invasive species, and aggressive treatment if invasive plant species are detected. Invasive plants can reduce the availability of food for woodrats and other species as well as interfere with desired woody species regeneration. Additionally, if possible, we ask that pockets of witch hazel are retained near the rock habitat boundary. Although witch hazel can interfere with woody regeneration, it provides forage for woodrats and other wildlife.

This decision is based on the site-specific factors listed above and does not imply that all currently unoccupied woodrat sites will receive the same recommendations. Allegheny woodrat populations are structured as a metapopulation, in which the population is composed of distinct subpopulations that are connected through dispersal. As a rock habitat specialist, "islands" of surface rock host subpopulations of woodrats that are connected through dispersal. Within a metapopulation, it is normal for subpopulations to occasionally be extirpated through stochastic events. But, since these subpopulations are linked through dispersal, these habitats are eventually recolonized. Therefore, it is imperative that we protect potential habitat, even if currently unoccupied, as well as the dispersal corridors between subpopulations for the current and future health of these populations.

These protections will be particularly important given the efforts of the regional Allegheny Woodrat Working Group to establish a captive breeding program. The purpose of this program is to augment genetically depauperate populations and reestablish extirpated metapopulations. As individuals are returned to the landscape, the success of the program will depend on the presence of suitable habitat and dispersal corridors to allow these populations to grow and recover.

We encourage you to use the Sensitive Species Project Review Areas (SSPRA) layer (https://dnr.maryland.gov/wildlife/pages/plants_wildlife/sspra.aspx), which will alert you to potential sensitive species concerns at proposed harvest sites. If you have any questions about the specific sensitive elements at a site, we would be happy to discuss them further with you.



Appendix 5: Citizens Advisory Committee Review and Comments

Maryland Department of Natural Resources State Forests

Savage River State Forest
FY-23 Annual Work Plan
Citizen's Advisory Committee
In-person scheduled January 16, 2024 @ 6:00 PM

Advisory Committee Members: Mark Diehl, Kevin Dodge, Mike Dreisbach, Steve Green, Rusty Leonard, Michael Minnick, Donnie Kamp

Meeting Attendees: All members in attendance

Silviculture Proposals – All projects were reviewed in detail and approved by the group. Informed the group that we are working through some comments and concerns with Heritage and FABS, but anticipate moving forward with the 5 original proposals with some minor changes.

Trail Proposals – The Margraff bike trail project was discussed and approved by the group as proposed. The trail expansion project at St. John's Rock was discussed and the group is in agreement that the best course of action is to address the current trails before adding anything new. Component 2 of the proposal should be the initial focus and component 3 should be evaluated for feasibility and trail usage evaluated before moving on the project.

Other Projects:
Shooting Range: Range renovations were again discussed and approved by the group. Engineering and Construction has completed some preliminary survey work and planning and anticipate the work to occur in FY25.

Savage River Lodge: Park Service is considering acquisition of the property.

Staffing / Budget: SRSF filled the former assistant manager position pin last year and we are glad to have Eric Yetter on staff as a forester. Budgets for the upcoming fiscal year have been promised to be stable and we can expect the same level of funding from FY24.

Public Comments for Savage River State Forest
State Forest FY25 Annual Work Plan Public Comments – Savage River State Forest

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The following comment was submitted by seven commentors
"Thank you for investing in OHV trail development. SB606 was passed to not just maintain existing OHV trails, but to create new ones as well. Saint John's Rock components 1-3 are exciting and will appeal to, and generate more users. This should be a trend to be continued at Savage Forest to further develop a desirable OHV trail system for its desired end users. I feel it is vitally important to get more people out and enjoying the beautiful resources available within Maryland in multiple ways. OHV trail systems have proven to be a great feature!
Also, please look to utilize this progress to expand the Burkholder ORV trail into a year-round, full loop, multi-use trail as well as expand to multi-use Wallman run trails.
With trails returning to Western MD, it is time to create and reopen trails on the Eastern Shore as well. Please utilize SB 606 funding to fund a sustainability study for OHV recreation."
Brian Holsonbake, New Windsor
Frank Haentschke, Rockville
Jeff Nelson, Frederick
Erin Doherty, Cascade
Dionysis Foustoukos, Silver Spring
Matthew Malone, North Bethesda
Garth Merson, Nottingham

"I would encourage you to not harvest trees over 70 years old and no cutting should be allowed near recreational trails. (Both are happening too frequently). Older trees are essential to a healthy ecosystem.
Thank you,"
Mike Fountain, Bethesda

"More single track for dirtbikes, too many places closing down these days"
Brent Roy, Lexington Park

"For many years, the Baltimore 4 Wheelers four wheel drive club used and enjoyed the area where the powerline runs across Negro Mountain. A part of that was brushing out and blazing trees for the snow mobile trails in that area.
We used to fill the Castleman Inn during our February snow runs.
The old gas well site made for an excellent group campsite.
On the plan there is mention of St. John's Rock OHV area expansion. Of course we are very much in favor of that. We would like to see more opportunities for full sized four wheel drive vehicles on that site.
The plan looks to be very well thought out. All looks good to me."
Preston Stevens, Westminister