SAVAGE RIVER STATE FOREST

ANNUAL WORK PLAN

FISCAL YEAR 2015

Prepared: Wade R. Dorsey (Forest Manager) — Date: 5/30/2014

Reviewed: (Regional Manager) — Date: 6/9/14

Reviewed: (Land Acquisition & Planning) — Date: 6/30/14

Approved: (Environmental Specialist) — Date: 7.1.14

State Forest Annual Work Plan

A. Forest Overview

Includes an overview of the forest; history, size, location, special features, etc.

B. AWP summary

Includes number of sales, total harvest acres, acres by harvest method, estimated harvest volume and other important features for the work to be performed during the next year.

C. Maintenance Projects

Includes boundary maintenance, road maintenance, building maintenance and other such projects.

D. Recreation Projects

Includes projects such as campsite improvements, hunting programs, special recreational activities, ATV and hiking trail maintenance, trail grants, signage, and other projects specific to benefiting recreational users of the forest.

E. Special Projects

Includes activities to gain or maintain third party forest certification, GIS databases, and other such activities.

F. Silvicultural Projects

Includes forest harvesting, prescribed fire programs, fertilization, reforestation, and other such projects. This section must include the following:

Final Silvicultural Activities:

1. Site Map
2. Silvicultural Prescription
3. Stand Data

Review Process:

1. Review Summary
2. Interdisciplinary Team Comments (collective)
3. Advisory Committee Comments
4. Public Comments

G. Watershed Improvement Projects

Includes special projects to enhance water quality, wetland restoration, and other such activities.

H. Ecosystem Restoration Projects

Includes projects to manage exotic invasive species, efforts to restore shale barrens or other natural habitats, and other such activities aimed at improving ecosytems.

I. Monitoring Projects

Includes CFI forest inventories, and other inventory projects being conducted on the forest, watershed monitoring, and other such projects.

J. Budget

Includes a proposed budget specific to the forest.

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Savage River State Forest Annual Work-plan for FY 2015

A. Forest Overview

Savage River State Forest is approximately 54,694 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 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 4000 acres of conifer plantations, 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 for over 60 years. 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.

B. Annual Work Plan Summary

The FY-2015 Annual Work Plan for Savage River State Forest was formulated during 2013. It contains projects to be undertaken in the areas of Silviculture, Maintenance, Special Projects, and Recreation.

Savage River will harvest approximately 1.02 million board feet of sawtimber through implementation of the FY-14 Annual Work Plan. The plan involves 15 proposed silvicultural projects within the forest. There are two regeneration harvests, 1 and 40 acres in size. Of the 13 thinning operations one is a conifer salvage and the remainder are hardwood thinnings.

Silvicultural treatment	Acres	Sawtimber Volume (Bd. Ft.)	Pulpwood Volume (cords)
Pre-commercial Thinning	69		
Commercial Thinning	431	999,700	4,396
Regeneration	41	20,300	124
Hemlock Salvage	50		

Most of the maintenance projects are of a routine nature. Again most of recreation work is of a routine nature. A special effort that began in FY 11 and will be

ongoing for the next 2 years is stand level data collection as part of our certification and management efforts. Further we will be monitoring all of our silvicultural activities five and 10 years post treatment.

A summary of silvicultural activity (planned and implemented) from 2002 to the present can be found on page 56.

C. Maintenance Projects

Routine maintenance projects include: Building repair and maintenance, mowing at the campus, snow removal, repair and replacement of fire rings and tables at the camp sites, brush hogging trails, and repair of road surfaces.

There are 70 plus primitive camp sites that we maintain. Maintenance and upkeep is on-going with major camp site maintenance focused at the end of the winter, prior to major holidays (such as Memorial Day, 4th of July, and Labor Day) and at the end of the camping season.

There are about 101 miles of trail and hardened road surface on the forest and we are maintaining 1/3 of these each year. This maintenance includes brush hogging and repair of road surfaces. We are also using herbicide in areas where it is too steep or narrow to brush hog. In FY 2015 we anticipate beginning a major effort at restoration and improvement of our trails and road system. We expect to have 37 miles of trails/roads upgraded to our sustainable standards.

There is a public shooting range on the forest that we keep open year round. Maintenance is on-going which includes replacing backboards and general clean-up on a weekly basis. Major efforts are done prior to the holiday seasons and prior to the beginning of the various hunting seasons.

Eighty miles of boundary will be repainted and 5 miles of "lost" boundary will be recovered.

D. Recreation Projects

We will begin implementing the expanded recreation plan that was created in FY 2014.

Phase one of the Continental Divide Loop bike trail that goes through the forest will likely be finished in FY 2014. Phase two will likely be completed in FY 2015, this section uses part of the Meadow Mountain Trail.

The Wildlife and Heritage Service will be working on 2 acres of herbaceous openings, maintaining 25 bluebird boxes, and pruning some 75 fruit trees. They will also be controlling woody vegetation by mowing and prescribed burning on 40 acres of wildlife openings. The Margroff wildlife habitat unit will have another soft edge –

brushy area created along one of the gas well areas. The Margroff wildlife habitat unit operating plan will be completed during this fiscal year.

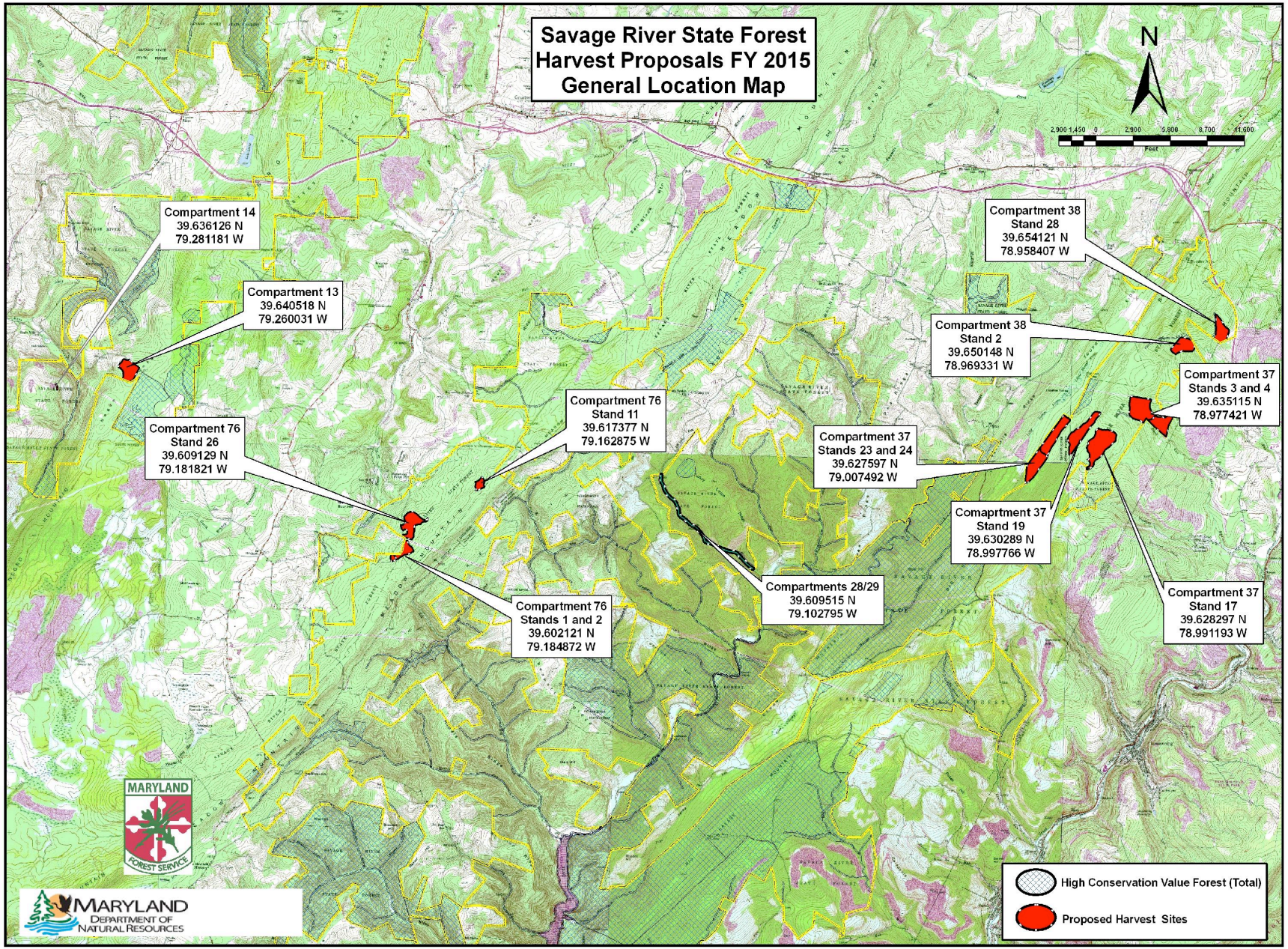
A new ORV trail is currently in the review process; it will be installed in fiscal year 14 or early in fiscal year 15. The use of this new trail along with East Shale Road ORV trail will be regulated with the Compass system, a web-based permitting system. Both trails will be designed to be sustainable and, as part of that, their use will be limited to ensure the stability of the surface and surrounding natural resources. They will also be closed to ORV use to accommodate the hunting public who has used these trails previously

E. Special Projects

There is one special project for this fiscal year. It is stream bank stabilization along Big Run Road.

Big Run is cutting into the bank and threatening Big Run Road in three places. We are working with Watershed Services, Freshwater Fisheries, Wildlife and Heritage Service and a private engineering firm to design and implement appropriate measures to reduce the erosion of the bank without causing problems down stream.

F. Silvicultural Projects


Savage River State Forest
Harvest Proposals FY 2015
General Location Map
N
2,900 1,450 0 2,900 5,800 8,700 11,600
Feet
Compartment 14
39.636126 N
79.281181 W
Compartment 13
39.640518 N
79.260031 W
Compartment 76
Stand 26
39.609129 N
79.181821 W
Compartment 76
Stand 11
39.617377 N
79.162875 W
Compartment 76
Stands 1 and 2
39.602121 N
79.184872 W
Compartments 28/29
39.609515 N
79.102795 W
Compartment 37
Stands 23 and 24
39.627597 N
79.007492 W
Comaprtment 37
Stand 19
39.630289 N
78.997766 W
Compartment 37
Stand 17
39.628297 N
78.991193 W
Compartment 38
Stand 28
39.654121 N
78.958407 W
Compartment 38
Stand 2
39.650148 N
78.969331 W
Compartment 37
Stands 3 and 4
39.635115 N
78.977421 W
MARYLAND
FOREST SERVICE
MARYLAND
DEPARTMENT OF
NATURAL RESOURCES
High Conservation Value Forest (Total)
Proposed Harvest Sites

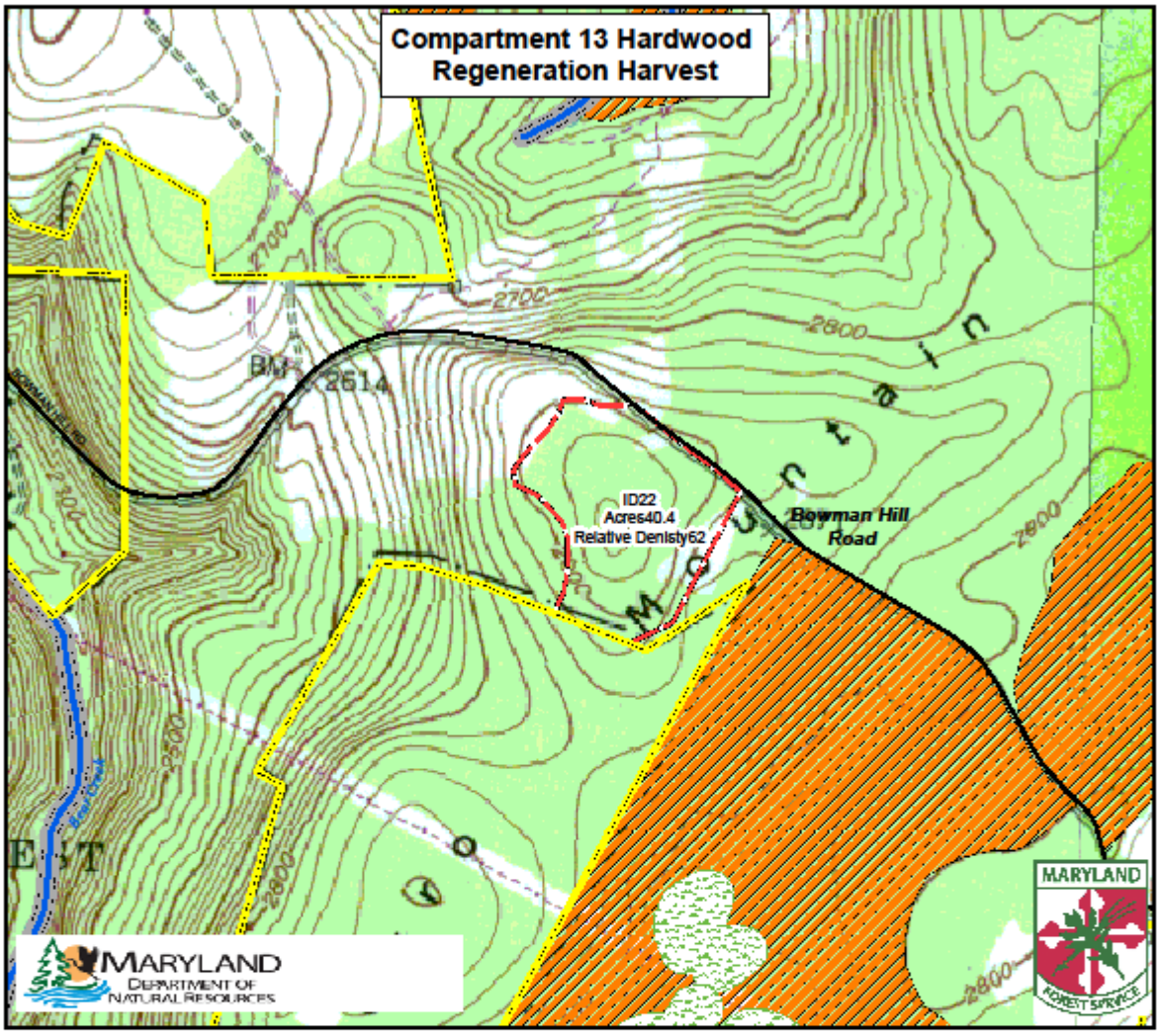
Compartment 13 – Stand 22 Regeneration Harvest

Description/Resource Impact Assessment

Forest Community Type: The forest type is a mixed hardwood type that is dominated by red maple, black cherry, sweet birch and northern red oak. The stand is under-stocked with acceptable growing stock (relative density of 35 percent). (Stand summary data is in Appendix one.) Gypsy moth infestations are an ongoing problem in the forest and this stand has not escaped the most recent infestation.
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There are no streams or ponds within 1000 feet of the sale boundary.
Soil Resources: The soil association found on this site is the Dekalb-Gilpin-Cookport association. It is typically gently sloping to steep, moderately deep, well drained and moderately well drained, very stony soils; formed over acid, grey to yellowish sandstone and shale. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site, like most of SRSF, was likely cutover and burned around the turn of the last century. The stand was thinned in 2000 and there has been some mortality due to a gypsy moth infestation since the thinning. No evidence of recent fire was observed in the stand during the recon.

Silvicultural Prescription

Because of the lack of acceptable growing stock and the lack of acceptable advanced regeneration, the recommendation is to conduct a regeneration clearcut and to supplement the natural regeneration with planted oak seedling. The objective of this treatment is to start the stand with desirable regeneration, while salvaging the standing dead. Four to six retention islands will be left that will represent the preharvest conditions. This will be done by centering ½ the islands on desirable oak trees (with a herbicide treatment of undesirable sweet birch) and the other half of the islands on dead overstory trees (without the herbicide treatment). These islands will be between ¼ and ½ acre each. Approximately 50 oak seedlings will be planted per acre. A variety of oak species including white oak, northern red oak, and chestnut oak will be acquired from the state nursery.



Savage River State Forest
Harvest Proposal FY 2015
Compartment 13
Approximately 40 Acres

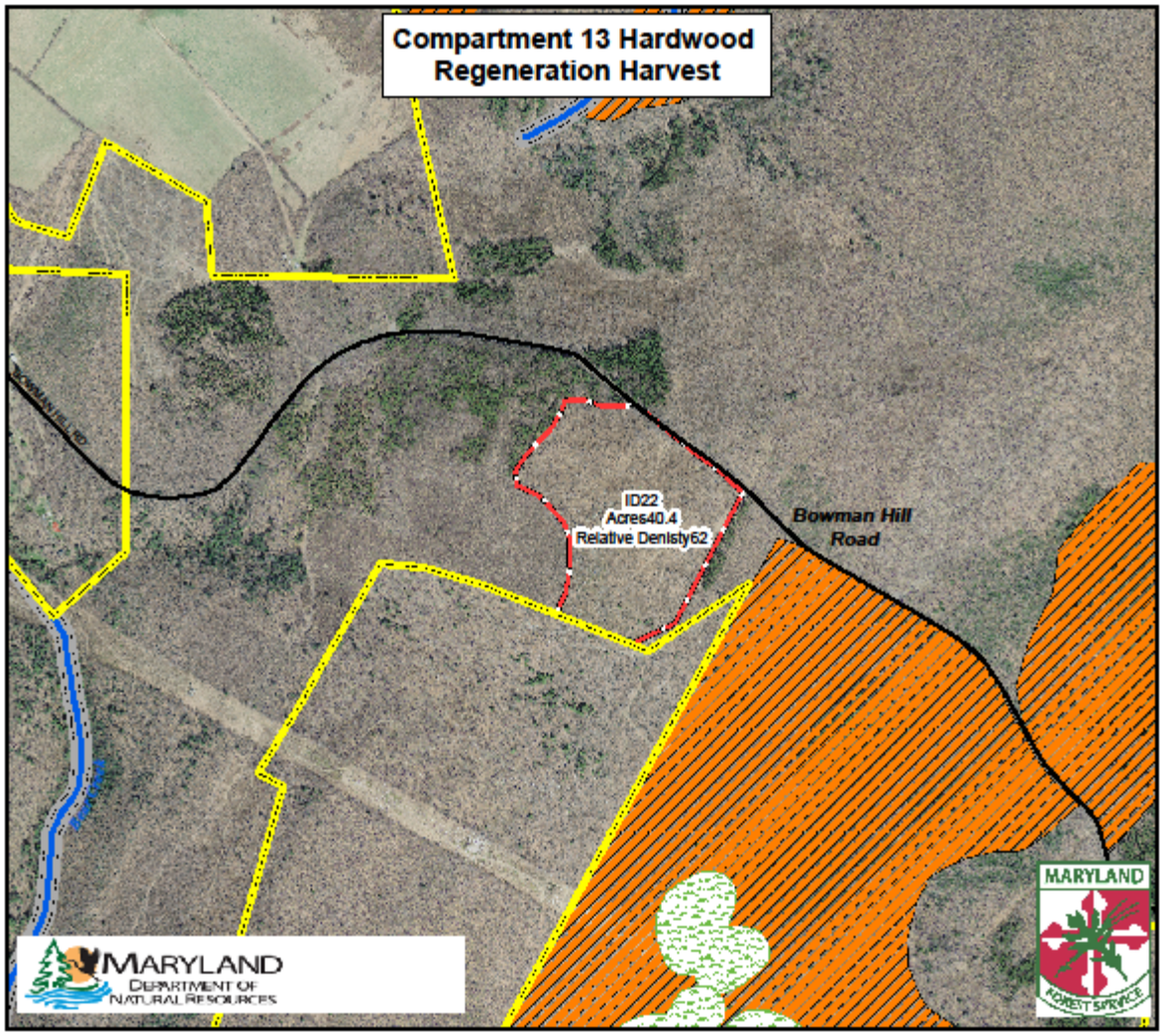
N

1:1000

600 250 0 600 1,000 1,600 2,000

Feet

- Wildlands
- Environmentally Sensitive Areas
- Old Growth
- Old Growth Ecosystem Area
- Wetlands of State Concern
- Streams and 50' Buffers
- Harvest Area



Savage River State Forest
Harvest Proposal FY 2015
Compartment 13
Approximately 40 Acres

N

1:1000

600 250 0 600 1,000 1,600 2,000

Feet

- Wildlands
- Environmentally Sensitive Areas
- Old Growth
- Old Growth Ecosystem Area
- Wetlands of State Concern
- Streams and 50' Buffers
- Harvest Area

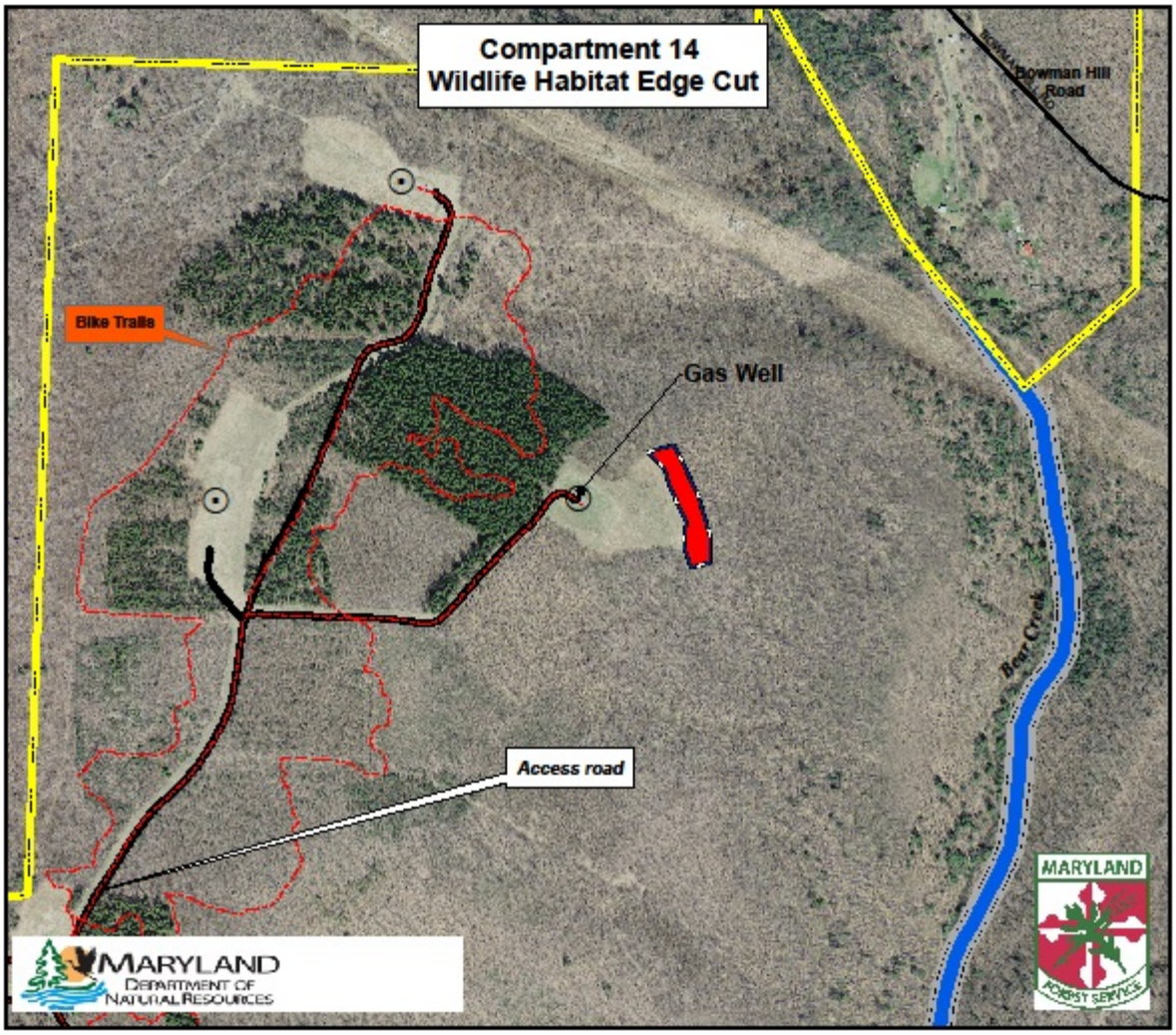
Compartment 14 – Wildlife Habitat Edge Cut on 1 acre

Description/Resource Impact Assessment

Forest Community Type: This proposal is part of an ongoing effort to create soft edge around the gas well sites. The timber in this stand will be left in place after it is cut for the benefit of wildlife, so detailed inventory data was not taken for this area. But it is a mixed oak type.
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: Bear Creek flows east of this proposal and the silvicultural treatment will be outside of our riparian buffer for this stream.
Soil Resources: The soil association found on this site is the Calvin-Gilpin association. It is typically gently sloping to steep, moderately deep, well drained soils; formed over acid, red to grey sandstone and shale. The productivity of the site will be protected by not having any haul roads or skid trails on the site.
Historic Conditions: This site, unlike most of SRSF, was an active gas producing site and now is a gas storage area. Further, a majority of the remaining area was abandoned farm land that has naturally regenerated. There is a conifer plantation, to the west of the stand that will be thinned in FY 14.

Silvicultural Prescription

The recommendation is to fell all trees within 66' of the edge. The objective of this treatment is to improve the habitat for wildlife by creating a soft edge. These soft edges are being scattered around the wells sites and through time, this will increase spatial and temporal diversity.



Savage River State Forest
Harvest Proposal FY 2015
Compartment 14
Approximately 1 Acre

N

1:660

330 165 0 330 660 990 1,320

Feet

- Wildlands
- Environmentally Sensitive Areas
- Old Growth
- Old Growth Ecosystem Area
- Wetlands of State Concern
- Streams and 50' Buffers
- Harvest Area

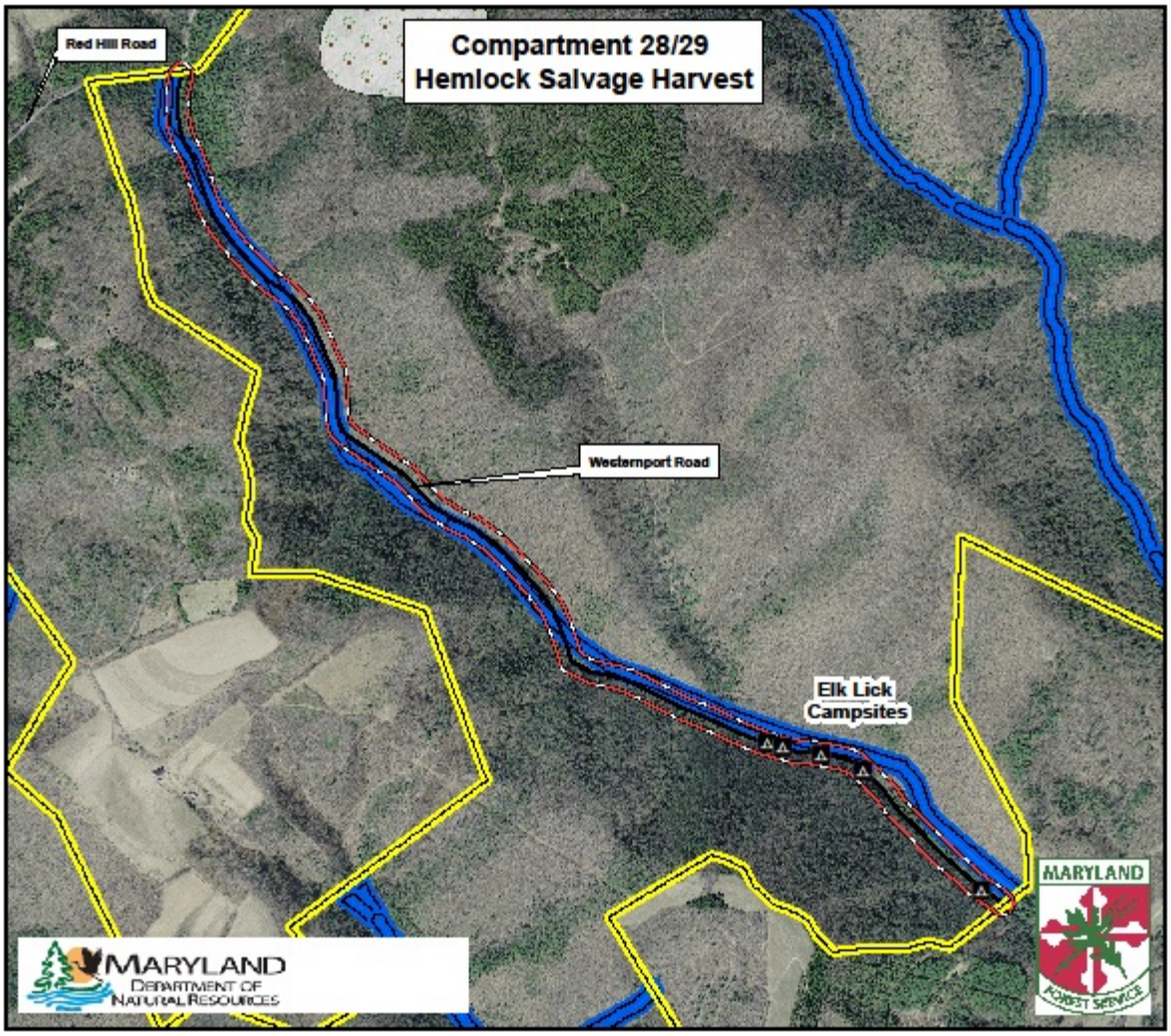
Compartment 28/29– Westernport Road Safety/Salvage on 50 acres

Description/Resource Impact Assessment

Forest Community Type: The forest of interest here is a mixed hemlock-hardwood type. In particular the dead and near dead trees.
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: Elk Lick crosses underneath of Westernport Road several times. The cutting activity will at times be within the buffer of Elk Lick.
Soil Resources: The soil association found on this site is the Dekalb-Calvin-Gilpin association. It is typically gently sloping to steep, moderately deep, well drained very stony soils; formed over acid, red to grey sandstone and shale. The productivity of the site will be protected by minimizing skid trails as outlined by our BMP and rutting guidelines.
Historic Conditions: There is no evidence of recent fire or cutting activity observed in the stand during the recon. However, there is a hemlock woolly adelgid infestation in the hemlocks. The area has had a beetle release in effort to control the adelgids.

Silvicultural Prescription

The Garrett County Roads Department has requested that we remove the dead/hazardous trees that are likely to fall on the road and threaten the safety of the traveling public. This project will also increase the safety in and around some of our campsites. The recommendation for this project is to cut and remove all dead trees (conifer and hardwoods) and near dead hemlocks within 100' of the road. Near dead hemlocks are identified as having less than 10% of the original crown and no new shoot growth. Implementing this recommendation will improve the safety for the traveling public for about 5 years and then the area should be re-examined.



Savage River State Forest
Harvest Proposal FY 2015
Compartments 28/29
Approximately 50 Acres

N

1:1250

600 300 0 600 1,200 1,800 2,400

Feet

- Wildlands
- Environmentally Sensitive Areas
- Old Growth
- Old Growth Ecosystem Area
- Wetlands of State Concern
- Streams and 50' Buffers
- Harvest Area

Compartment 37 – Stand 3 - Hardwood Thinning on 39 acres

Description/Resource Impact Assessment

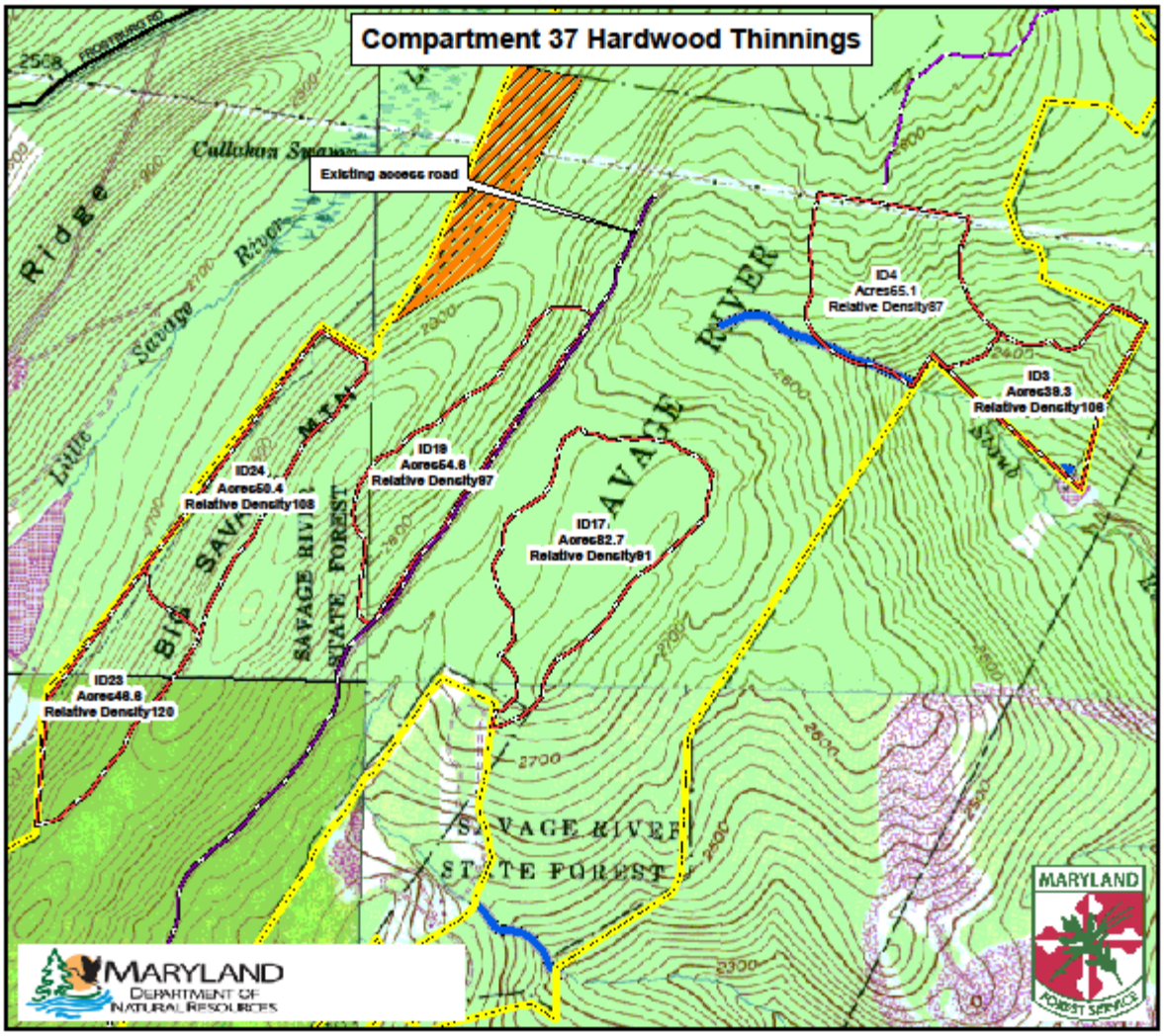
Forest Community Type: This stand is a mixed hardwood type that is dominated by northern red oak and red maple. The stand is overstocked and has a relative density of 106 percent and a basal area of 152 sq. ft. (Stand summary data is included in Appendix 2) While gypsy moth infestations are an ongoing problem in the forest, this stand has escaped the most recent infestation and this thinning is designed in part to increase the resilience of the oak to defoliation and reduce the suitability of the stands for gypsy moth.
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: On the southern-west side of the stand is Staub Run which flows into a pond at the southern point of the stand. There are a couple unnamed streams that will have to be buffered.
Soil Resources: The soil association found on this site is the Dekalb-Gilpin-Cookport association. It is typically gently sloping to steep, moderately deep, well drained and moderately well drained, very stony soils; formed over acid, gray to yellowish sandstone and shale. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site, like most of SRSF was likely cutover and burned around the turn of the last century. No evidence of recent fire or cutting activity was observed in the stand during the recon. To the north of the stand there is an area that was cut in 2007.

Silvicultural Prescription

The recommendation for this stand is to prepare the stand for regeneration. This will be done by herbiciding the competing shrub layer to increase light to the forest floor, hopefully stimulating the new oak seedlings and encouraging oak acorns to germinate. Consideration should be given to a broadcast application of herbicide in the stand and stand 4. After the oak seedlings reach the competitive size class then the first stage of a Shelterwood cut will be conducted. The objective of this thinning is to remove most of the unacceptable growing stock, reduce the amount of pole size material and to improve the vigor and health of the residual trees. Approximately 100 sq. ft. of basal area per acre is the target for the residual stand.

Even though this is not a regeneration cut, a 33’ no cut buffer area next the stand on the north and the boundary on the southwest side will be established in anticipation of future retention. The stream flowing through this stand will also be buffered and will become future retention.

This stand should be examined again in 10 years to begin planning for a regeneration harvest or a second shelterwood cut.



Savage River State Forest
Harvest Proposals FY 2015
Compartment 37
Approximately 339 Acres

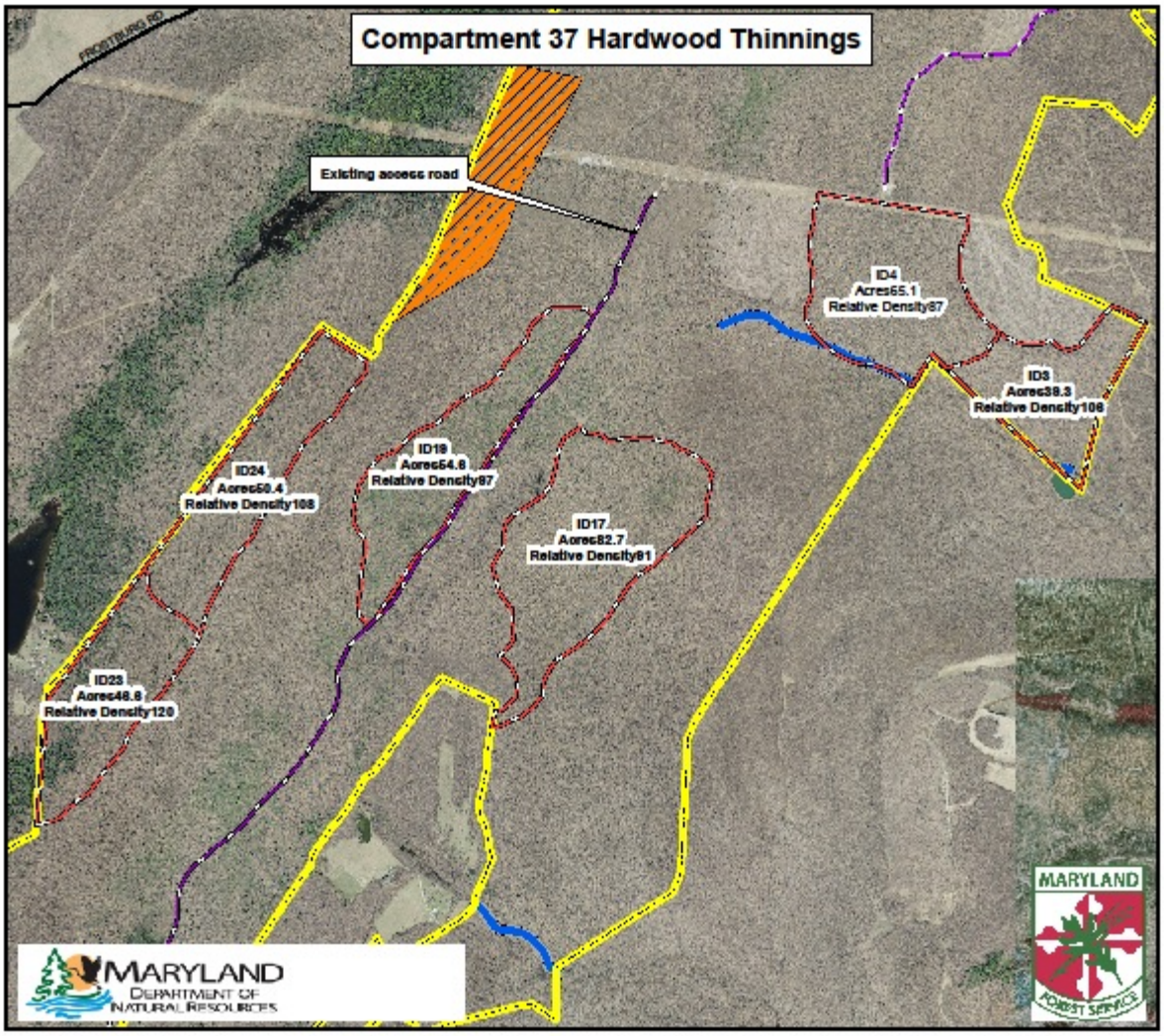
N

1:1500

750 375 0 750 1,500 2,250 3,000

Feet

- Wildlands
- Environmentally Sensitive Areas
- Old Growth
- Old Growth Ecosystem Area
- Wetlands of State Concern
- Streams and 50' Buffers
- Harvest Area



Savage River State Forest
Harvest Proposals FY 2015
Compartment 37
Approximately 339 Acres

N

1:1500

750 375 0 750 1,500 2,250 3,000

Feet

- Wildlands
- Environmentally Sensitive Areas
- Old Growth
- Old Growth Ecosystem Area
- Wetlands of State Concern
- Streams and 50' Buffers
- Harvest Area

Compartment 37 – Stand 4 – Hardwood Thinning on 65 acres

Description/Resource Impact Assessment

Forest Community Type: This stand is a mixed hardwood type that is dominated by northern red oak and red maple. The stand is overstocked and has a relative density of 87 percent and a basal area of 131 sq. ft. (Stand summary data is included in Appendix 3) Gypsy moth infestations are an ongoing problem in the forest, but this stand has escaped the most recent infestation and this thinning is designed in part to increase the resilience of the oak to defoliation and reduce the suitability of the stands for gypsy moth.
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: On the southern end of the proposed activity there is Staub Run. The silvicultural treatments will be outside of the riparian buffer for this stream and typically more than 300 feet away from the stream. There are some intermittent streams that will also need to be buffered in this stand.
Soil Resources: The soil association found on this site is the Dekalb-Gilpin-Cookport association. It is typically gently sloping to steep, moderately deep, well drained and moderately well drained, very stony soils; formed over acid, gray to yellowish sandstone and shale. The productivity of the site will be protected by minimizing the haul roads and skid trails as outlined by our BMP and rutting guidelines.
Historic Conditions: This site, like most of SRSF, was likely cutover and burned around the turn of the last century. No evidence of recent fire or cutting activity was observed in the stand during the recon. To the east and west of the stand there are areas that were regenerated in 2007.

Silvicultural Prescription

The recommendation is similar to stand 3 and should be conducted at the same time. The recommendation for this stand is to prepare the stand for regeneration. This will be done by herbiciding the competing shrub layer to bring increased light to the forest floor, hopefully stimulating the new oak seedlings and encouraging oak acorns to germinate. After the oak seedlings reach the competitive size class, the first stage of a shelterwood cut will be conducted. The objective of this thinning is to remove most of the unacceptable growing stock, reduce the amount of pole size material and to improve the vigor and health of the residual trees. Approximately 90 sq. ft. of basal area per acre is the target for the residual stand.

Even though this is not a regeneration cut, a 33’ no cut buffer area separating the stands on the east and west will be established. Staub Run will have a 50’ no cut buffer immediately adjacent to it and a thin only/no equipment buffer beyond the 50’ no cut area as per our BMPs. The stream flowing through this stand will also be buffered. All the buffered areas will become future retention areas.

This stand should be examined again in 10 years to begin planning for a regeneration harvest or a second shelterwood cut

Compartment 37 – Stand 17 - Commercial Thinning on 83 acres

Description/Resource Impact Assessment

Forest Community Type: This stand is a mixed oak type that is dominated by northern red oak, red maple and chestnut oak. The stand is overstocked and has a relative density of 91 percent and a basal area of 138 sq. ft. (Stand summary data is included in Appendix 4) While gypsy moth infestations are an ongoing problem in the forest, this stand has not escaped the most recent infestation and this thinning is designed, in part, to increase the resilience of the oak to defoliation and reduce the suitability of the stands for gypsy moth.
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There is a rock ledge that runs along the ridge top near the southeastern boundary.
Water Resources: There is an unnamed tributary to Woodland Creek between Red Dog Road and the stand boundary.
Soil Resources: The soil association found on this site is the Dekalb-Gilpin-Cookport association. It is typically gently sloping to steep, moderately deep, well drained and moderately well drained, very stony soils; formed over acid, gray to yellowish sandstone and shale. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site, like most of SRSF, was likely cutover and burned around the turn of the last century. No evidence of recent fire or cutting activity was observed in the stand during the recon. The stand was previously thinned in 1986 and the stand to the northeast was thinned in 2001.

Silvicultural Prescription

The recommendation for this stand is a commercial thinning. The objective of this thinning is to remove most of the unacceptable growing stock, reduce the oak component and to improve the vigor and health of the residual trees. Approximately 92 sq. ft. of basal area per acre is the target for the residual stand. Prior to the stand being cut it should have a selective herbicide application to control the competing witch hazel and striped maple.

The cutting activity should stop at the rock ledge as that area will be future retention.

This stand should be examined again in 10 years to begin planning for a regeneration harvest.

Compartment 37 – Stand 19 – Pulpwood Thinning on 55 acres

Description/Resource Impact Assessment

Forest Community Type: This stand is a mixed oak type that is dominated by northern red oak, chestnut oak and red maple. The stand is overstocked and has a relative density of 97 percent and a basal area of 127 sq. ft. (Stand summary data is included in Appendix 5). While gypsy moth infestations are an ongoing problem in the forest, this stand has not escaped the most recent infestation and this thinning is designed in part to increase the resilience of the oak to defoliation and reduce the suitability of the stands for gypsy moth.
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There were no streams or seeps found in the stand.
Soil Resources: The soil association found on this site is the Dekalb-Gilpin-Cookport association. It is typically gently sloping to steep, moderately deep, well drained and moderately well drained, very stony soils; formed over acid, gray to yellowish sandstone and shale. The productivity of the site will be protected by minimizing the haul roads and skid trails as outlined by our BMP and rutting guidelines.
Historic Conditions: This site, like most of SRSF, was likely cutover and burned around the turn of the last century. No evidence of fire or cutting activity was observed in the stand during the recon.

Silvicultural Prescription

The recommendation for this stand is a commercial pulpwood thinning. The objective of this thinning is to remove most of the unacceptable growing stock, reduce the oak component and to improve the vigor and health of the residual trees. Approximately ½ of the standing dead trees should be harvested at this time as well. Approximately 84 sq. ft. of basal area per acre is the target for the residual stand.

Compartment 37 – Stand 23 – Commercial Thinning on 47 acres

Description/Resource Impact Assessment

Forest Community Type: This stand is a mixed oak/eastern hemlock type that is dominated by red oak, red maple and eastern hemlock. The stand is overstocked and has a relative density of 120 percent and a basal area of 178 sq. ft. (Stand summary data is included in Appendix 6). While gypsy moth infestations are an ongoing problem in the forest, this stand has not escaped the most recent infestation and this thinning is designed in part to increase the resilience of the oak to defoliation and reduce the suitability of the stands for gypsy moth.

Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.

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

Water Resources: The Little Savage River is west of the stand. There is one unnamed intermittent stream and a number of wet areas that are associated with it in this stand.

Soil Resources: The soil association found on this site is the Dekalb-Calvin-Gilpin association. It is typically gently sloping to steep, moderately deep, well drained and very stony soils; formed over acid, red to gray sandstone and shale. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.

Historic Conditions: This site, like most of SRSF, was likely cutover and burned around the turn of the last century. There is evidence of past fire within the stand. Gypsy Moth and Hemlock Woolly Adelgid were found in the stand.

Silvicultural Prescription

This stand is approaching maturity and there is very little advanced regeneration in the stand. These two characteristics drive the recommendation to prepare the stand for regeneration. The first step is to control the striped maple and witch hazel in the shrub layer. If a broadcast application is practical then the entire shrub layer can be controlled. This will increase the light level on the forest floor and, hopefully, stimulate the young oak seedlings present and stimulate the germination of new acorns. The next step is to conduct the first cut of a shelterwood sequence, namely by removing most of the pulpwood and the unacceptable sawtimber. Half the standing dead trees should be removed during this thinning. A pulpwood thinning should also be conducted in the hemlocks. There is some research evidence that when hemlocks are thinned and are growing well they are more resistant to mortality due to Hemlock Woolly Adelgid. The intermittent stream and associated wet areas will be buffered.

The stand should be examined again in ten years to determine if it is ready for a regeneration cut or a second shelterwood cut.

Compartment 37 – Stand 24 – Commercial Thinning on 50 acres

Description/Resource Impact Assessment

Forest Community Type: This stand is a mixed oak type that is dominated by red oak, red maple and chestnut oak. The stand is overstocked and has a relative density of 108 percent and a basal area of 164 sq. ft. (Stand summary data is included in Appendix 7). While gypsy moth infestations are an ongoing problem in the forest, this stand has not escaped the most recent infestation and this thinning is designed in part to increase the resilience of the oak to defoliation and reduce the suitability of the stands for gypsy moth.
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: The Little Savage River is west of the stand.
Soil Resources: The soil association found on this site is the Dekalb-Calvin-Gilpin association. It is typically gently sloping to steep, moderately deep, well drained and very stony soils; formed over acid, red to gray sandstone and shale. The productivity of the site will be protected by minimizing the haul roads and skid trails as outlined by our BMP and rutting guidelines.
Historic Conditions: This site, like most of SRSF, was likely cutover and burned around the turn of the last century. There is evidence of past fire within the stand. Gypsy Moth egg masses were found in the stand.

Silvicultural Prescription

This stand is approaching maturity and there is very little advanced regeneration in the stand. These two characteristics drive the recommendation to prepare the stand for regeneration. The first step is to control the striped maple and witch hazel in the shrub layer. If a broadcast application is practical then the entire shrub layer can be controlled. This will increase the light level on the forest floor and stimulate the young oak seedlings present and stimulate the germination of any new acorns. The next step is to conduct the first cut of a shelterwood sequence, namely by removing most of the pulpwood and the unacceptable sawtimber. The target residual basal area is 110 sq. ft. Half of the standing dead trees should be removed during this thinning.

The stand should be examined again in ten years to determine if it is ready for a regeneration cut or a second Shelterwood cut.

Compartment 38 – Stand 2 Crop Tree Release on 45 acres

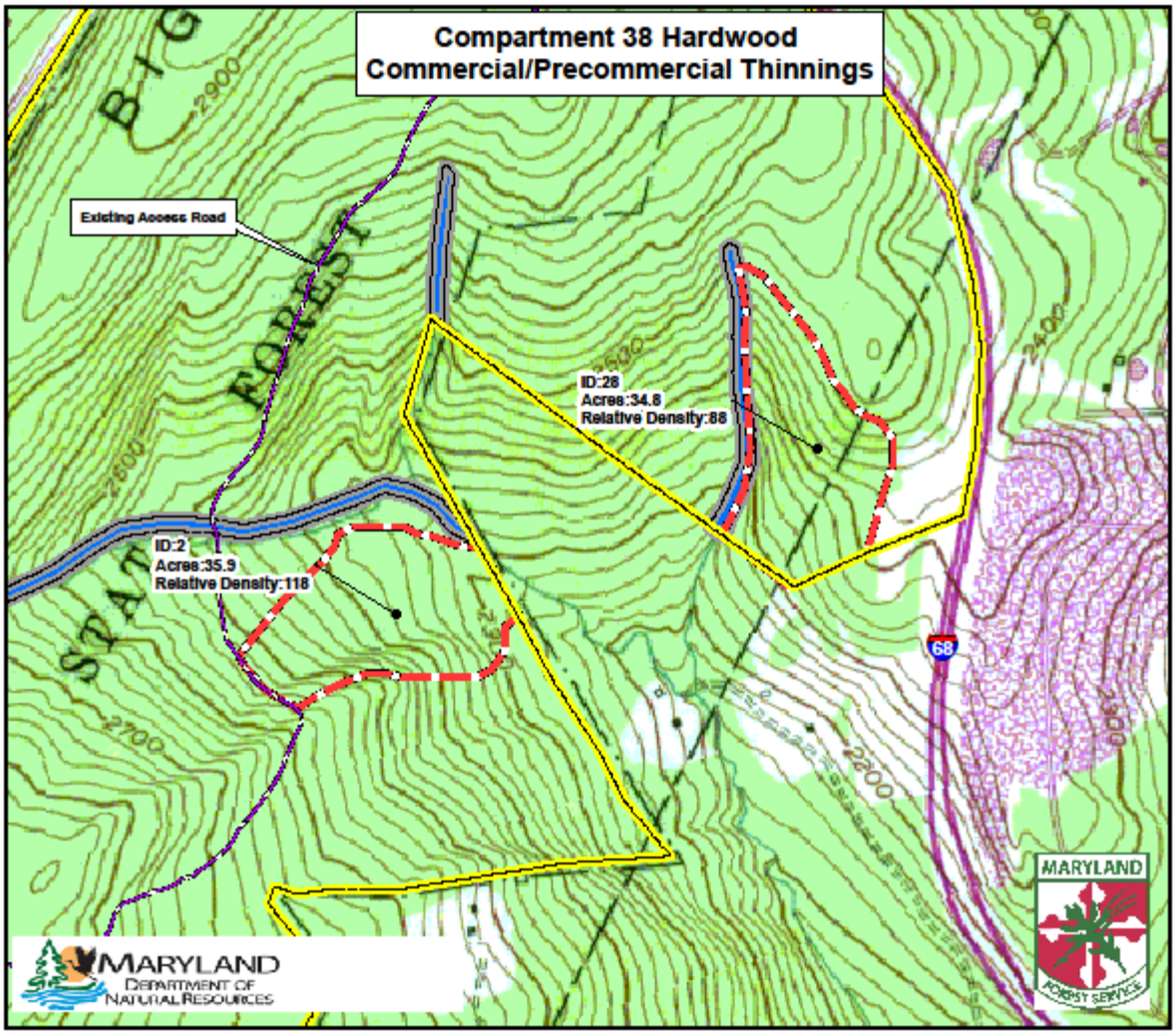
Description/Resource Impact Assessment

Forest Community Type: This stand is an Allegheny hardwood type dominated by northern red oak, black cherry and red maple. The stand is overstocked, the relative density is 118 percent and the basal area is 129 sq. ft. (Stand summary data is included in Appendix 8)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: The headwaters of Winebrenner Run are north and east of the stand. The are some associated wet areas on the eastern part of the stand.
Soil Resources: The soil association found on this site is the Dekalb-Gilpin-Cookport association. It is typically gently sloping to steep, moderately deep, well drained and moderately well drained, very stony soils; formed over acid, gray to yellowish sandstone and shale. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site, like most of SRSF, was likely cutover and burned around the turn of the last century. Further, this stand was thinned in 1984 and regenerated in 1998.

Silvicultural Prescription

The recommendation for this stand is a pre-commercial thinning or a crop tree release. The objective of this treatment is to release approximately 50 northern red oak trees per acre. While the oaks have regenerated after the harvest they are not competing well with the other species present. The goal of the treatment is to ensure that oak will remain part of the stand.

This practice may have to be repeated in 10 years or the trees may have enough volume that it could be done as a commercial operation..



Savage River State Forest
Harvest Proposal FY 2015
Compartment 38
Approximately 71 Acres

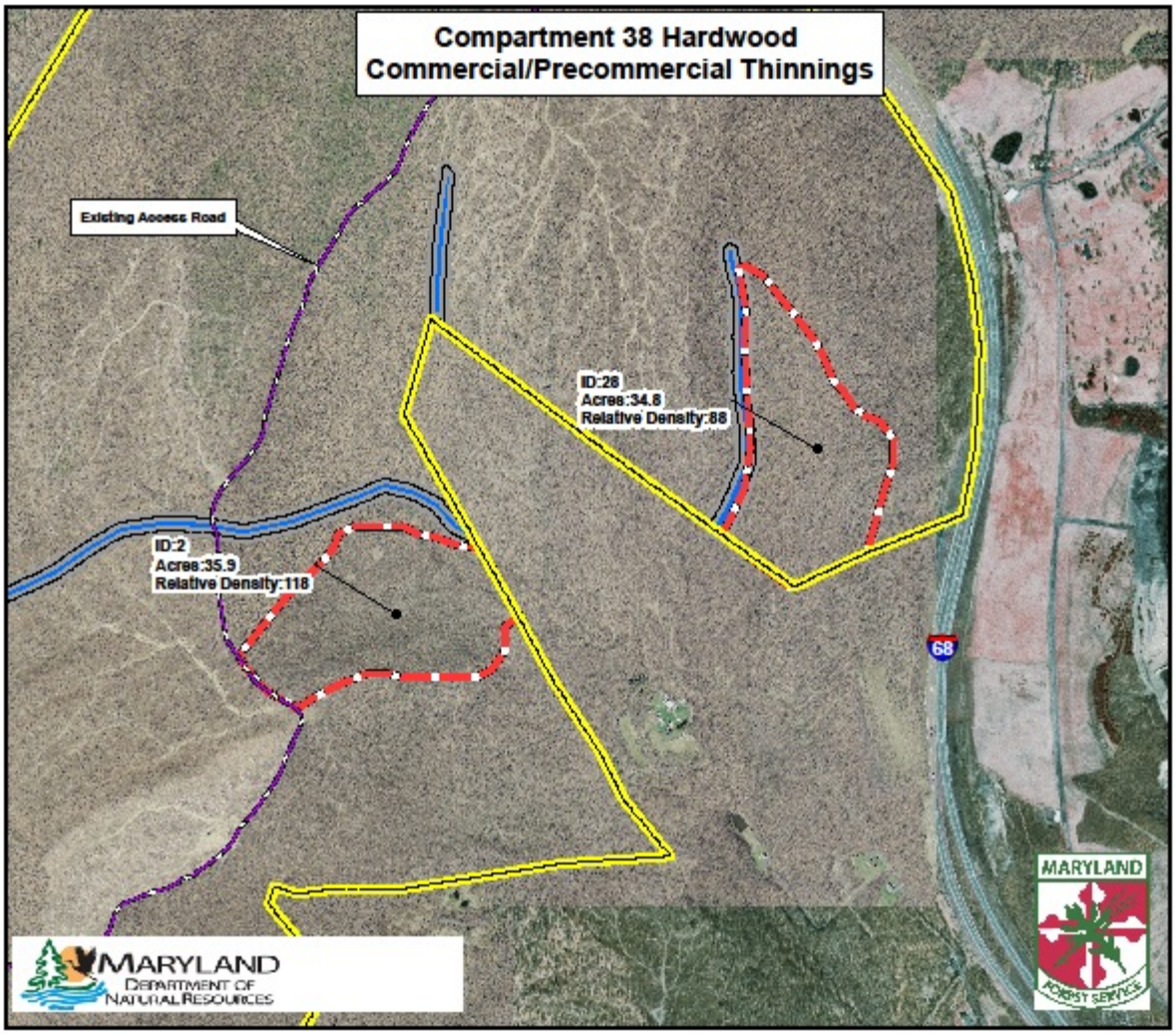
N

1:1000

480 240 0 480 960 1,440 1,920

Feet

- Wildlands
- Environmentally Sensitive Areas
- Old Growth
- Old Growth Ecosystem Area
- Wetlands of State Concern
- Streams and 50' Buffers
- Harvest Area



Savage River State Forest
Harvest Proposal FY 2015
Compartment 38
Approximately 71 Acres

N

1:1000

480 240 0 480 960 1,440 1,920

Feet

- Wildlands
- Environmentally Sensitive Areas
- Old Growth
- Old Growth Ecosystem Area
- Wetlands of State Concern
- Streams and 50' Buffers
- Harvest Area

Compartment 38 – Stand 28 Commercial Thinning on 35 acres

Description/Resource Impact Assessment

Forest Community Type: This stand is mixed hardwood type dominated by red maple, red oak, black cherry, chestnut oak and sugar maple. The stand is overstocked and has a relative density of 88 percent and a basal area of 132 sq. ft. (Stand summary data is included in Appendix 9)

Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.

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

Water Resources: On the western side of this stand is one of the headwaters of Winebrenner Run. The silvicultural treatments will be outside of the riparian buffer for this stream.

Soil Resources: The soil association found on this site is the Dekalb-Gilpin-Cookport association. It is typically gently sloping to steep, moderately deep, well drained and moderately well drained, very stony soils; formed over acid, gray to yellowish sandstone and shale. The productivity of the site will be protected by minimizing the haul roads and skid trails as outlined by our BMP and rutting guidelines

Historic Conditions: This site, like most of SRSF was likely cutover and burned around the turn of the last century. No evidence of recent fire activity was observed in the stand during the recon.

Silvicultural Prescription

The recommendation for this stand is to prepare it for regeneration. The first step is to control the interfering plants to allow enough light to stimulate the advanced regeneration. The second step is to thin the stand to remove most of the pulpwood size material and unacceptable growing stock. The target residual basal area is approximately 87 sq. ft. /acre.

However when the inventory data was collected it was for the stand as a whole, but when we conducted the recon for the Annual Work Plan we found 3 distinct nearly mature stands instead of just one. One stand is mostly sugar maple, one stand is mostly black cherry, and the last stand is a mixed oak stand. Consequently, the prescription from the paragraph above is generally correct, but we will be tweaking the prescription to fit the stands that we discovered in the recon.

This stand should be examined in 10 years to determine what further steps need to be taken to successfully regenerate the stand.

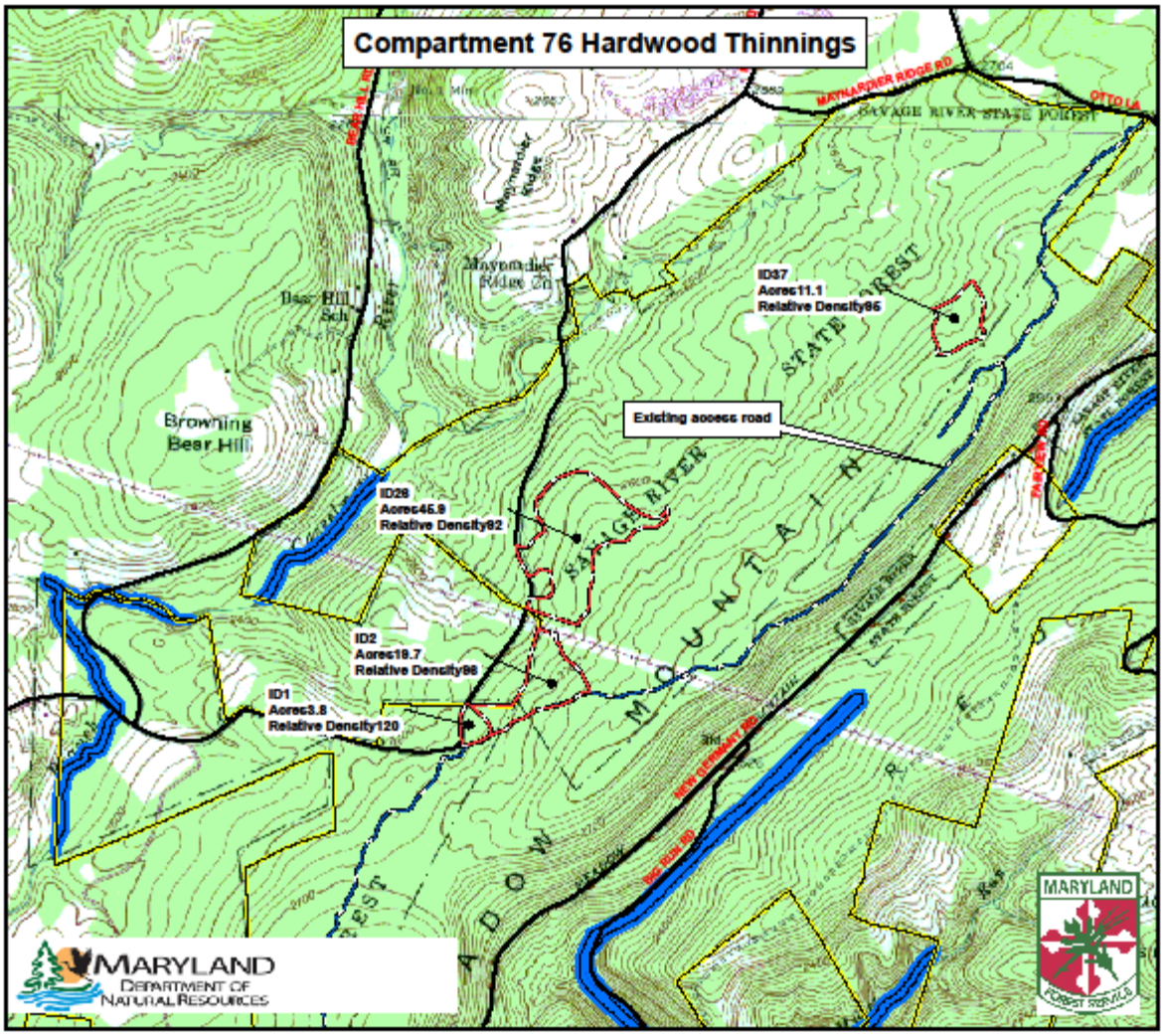
Compartment 76 – Stand 1 Crop Tree Release on 3.8 acres

Description/Resource Impact Assessment

Forest Community Type: This area is a mixed hardwood/eastern hemlock type dominated by northern red oak and eastern hemlock with black gum, red maple chestnut oak and sassafras present. The stand is overstocked, the relative density is 120 percent and the basal area is 140 sq. ft. (Stand summary data is included in Appendix 10)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There are no water resources in the area of the sale.
Soil Resources: The soil association found on this site is the Dekalb-Gilpin-Cookport association. It is typically gently sloping to steep, moderately deep, well drained and moderately well drained, very stony soils; formed over acid, gray to yellowish sandstone and shale. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site, like most of SRSF, was likely cutover and burned around the turn of the last century. No evidence of recent fire activity was observed in the stand during the recon.

Silvicultural Prescription

The recommendation for this stand is a crop tree release. The objective of this thinning is to control species composition by favoring the oaks. Approximately, 60 crop trees per acre should be released. One-half of them should be oaks and remainder composed of good quality trees to improve the diversity of the stand. This work will be done by the staff of Savage River State Forest.



Savage River State Forest
Harvest Proposals FY 2015
Compartment 76
Approximately 81 Acres

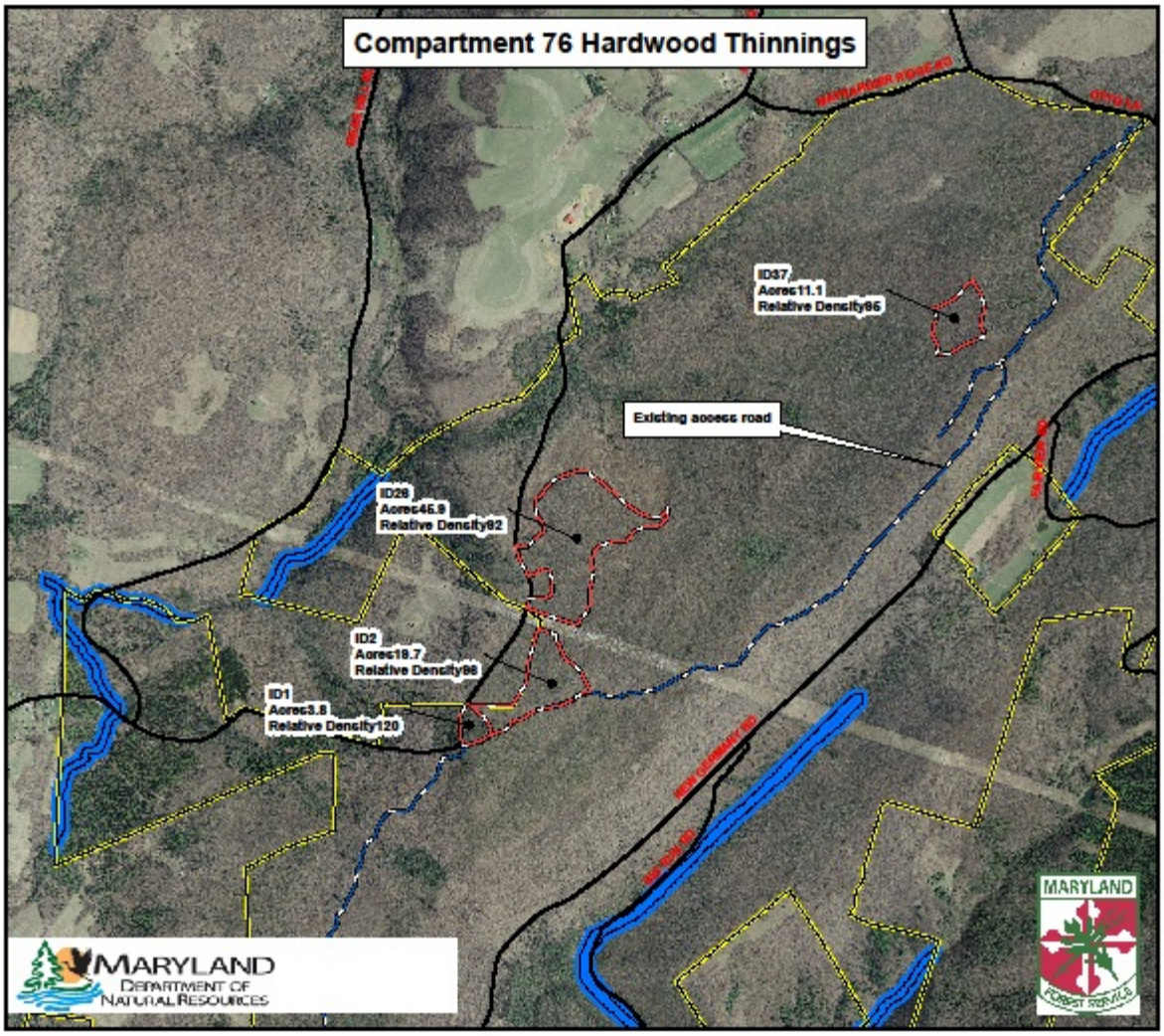
N

1:2,000

990 495 0 990 1,980 2,970 3,960

Feet

- Wildlands
- Environmentally Sensitive Areas
- Old Growth
- Old Growth Ecosystem Area
- Wetlands of State Concern
- Streams and 50' Buffers
- Harvest Area



Savage River State Forest
Harvest Proposals FY 2015
Compartment 76
Approximately 81 Acres

N

1:2,000

990 495 0 990 1,980 2,970 3,960

Feet

- Wildlands
- Environmentally Sensitive Areas
- Old Growth
- Old Growth Ecosystem Area
- Wetlands of State Concern
- Streams and 50' Buffers
- Harvest Area

Compartment 76 – Stand 2 Crop Tree Release on 19.6 acres

Description/Resource Impact Assessment

Forest Community Type: This area is a mixed hardwood type dominated by red maple, northern red oak, chestnut oak, and sweet birch. The stand is overstocked, the relative density is 96 percent and the basal area is 115 sq. ft. (Stand summary data is included in Appendix 11)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There are no water resources in the area of the sale.
Soil Resources: The soil association found on this site is the Dekalb-Gilpin-Cookport association. It is typically gently sloping to steep, moderately deep, well drained and moderately well drained, very stony soils; formed over acid, gray to yellowish sandstone and shale. The productivity of the site will be protected by minimizing the haul roads and skid trails as outlined by our BMP and rutting guidelines.
Historic Conditions: This site, like most of SRSF was likely cutover and burned around the turn of the last century. No evidence of recent fire activity was observed in the stand during the recon.

Silvicultural Prescription

The recommendation for this stand is a crop tree release. The objective of this thinning is to control species composition by favoring the oaks. Approximately, 60 crop trees per acre should be released. One-half of them should be oaks and remainder composed of good quality trees to improve the diversity of the stand. This work will be done by the staff of Savage River State Forest.

Compartment 76 – Stand 26 Commercial Thinning on 46 acres

Description/Resource Impact Assessment

Forest Community Type: This area is a mixed hardwood type dominated by red oak, red maple and black cherry. The stand is overstocked, the relative density is 92 percent and the basal area is 133 sq. ft. (Stand summary data is included in Appendix 12)
Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.
Habitats and Species of Management Concern: There are no known habitats or species of management concern on this site.
Water Resources: There are no water resources in the area of the sale.
Soil Resources: The soil association found on this site is the Dekalb-Gilpin-Cookport association. It is typically gently sloping to steep, moderately deep, well drained and moderately well drained, very stony soils; formed over acid, gray to yellowish sandstone and shale. The productivity of the site will be protected by minimizing the haul roads and skid trails in accordance with our BMP and rutting guidelines.
Historic Conditions: This site, like most of SRSF was likely cutover and burned around the turn of the last century. No evidence of recent fire activity was observed in the stand during the recon.

Silvicultural Prescription

The recommendation for this stand is a commercial thinning. The objective of this treatment is to improve the vigor and health of the residual stand. The target residual basal area should be about 88 sq. ft./acre. This target should be reached by removing all the unacceptable sawtimber growing stock and then removing trees from the poletimber class.

In ten years this stand should be reexamined to evaluate whether it is ready to be regenerated or not.

Compartment 76 – Stand 37 Commercial Thinning on 11 acres

Description/Resource Impact Assessment

Forest Community Type: This area is a mixed hardwood type dominated by red maple, northern red oak, chestnut oak and black gum. The stand is overstocked, the relative density is 95 percent and the basal area is 117 sq. ft. (Stand summary data is included in Appendix 13)

Rare, Threatened and Endangered species: There are no known rare, threatened or endangered species on this site or impacted by the silvicultural prescription.

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

Water Resources: There is an intermittent stream and some wet areas within the stand.

Soil Resources: The soil association found on this site is the Dekalb-Gilpin-Cookport association. It is typically gently sloping to steep, moderately deep, well drained and moderately well drained, very stony soils; formed over acid, gray to yellowish sandstone and shale. The productivity of the site will be protected by minimizing the haul roads and skid trails as outlined by our BMP and rutting guidelines.

Historic Conditions: This site, like most of SRSF was likely cutover and burned around the turn of the last century. No evidence of recent fire activity was observed in the stand during the recon.

Silvicultural Prescription

The recommendation for this stand is a commercial thinning. The objective of this treatment is to improve the vigor and health of the residual stand. The target residual basal area should be 78 sq. ft./acre, and this target should be reached by removing all the unacceptable sawtimber growing stock first and then by removing trees from the poletimber class. Care must be taken around the wet areas and buffers established to protect them.

Review Process:

ID team comments from August 2013 follow.

Citizen's Advisory Committee no comments reported.

No Public Comments

Savage River State Forest

ID Team Annual Work Plan FY 2015
August 21, 2013

Attendance: Ed Thompson (WHS), Wade Dorsey (MFS), Rick Latshaw (WHS), Pete Hartman (MDE), Matt Sell (Fisheries), Steve Carr (LAP), Scott Campbell (SRSF), Jack Perdue (MFS)

Summary
Wade Dorsey, State Forest manager, used a PowerPoint presentation to overview the FY15 annual work plan. There was a discussion regarding many of the areas and issues.

Recreation: An ORV trail expansion at St Johns Rock has been proposed. The IDT will tour the site during the day. There will be a public meeting on Sept 4, at New Germany SP Lakehouse to present three new ORV site proposals – St Johns Rock, Woodmont WMA, and Sideling Hill State Park.

Boundary maintenance and recovery is going very well. SRSF has some interested people who are making this work.

Silviculture
Compartment 13: Bowman Hill Regeneration harvest
Discussion with no concerns.

Compartment 14: Margroff Place. Wildlife habitat edge cut
Plan on rotating cuts around this area. No concerns.

Compartment 28/29 Hemlock Salvage Harvest
Remove dead and near-dead hemlocks
Fisheries likes some wood in the stream for habitat. Likes to see the wood remain on site. Garrett County Roads is concerned that the wood will clog the culverts nearby.

Compartment 37 Hardwood thinnings
This proposal will chemically treat the understory to remove the reversion competition. Fisheries has an interest in this area as brook trout has been documented up to the pond and probably above it as well. Heritage has documented an ESA in that area but will need to finalize the data.

A side discussion regarding the need for ESA data needs to be consolidated and agreed to between Heritage and Forest Service.

Stand 23: intermittent streams will be buffered.

Compartment 38 Hardwood Commerical/Precommercial Thinnings
Stand 2: Crop Tree Release to promote the oak component.
Will be broken into three separate stands.

Compartment 76 81 ac Hardwood thinnings
Working to maintain a 20% oak component for species diversity but lessen the gypsy moth threat.

Stand 37 will have water issues. Fisheries asked for these areas to be buffered.

Ecosystem Restoration: Chop and Drop
The SRSF staff will work with Fisheries to install in-stream habitat at Big Run. Will be engineered to stay in place. This project will likely require on-site signage to reduce the chance of campers removing the in-stream wood for use of firewood. This has been a problem in the past. Garrett County Roads will be concerned that the in-stream wood will move during a storm event and block the culverts and thus flooding the road.

Exotic Invasive Plants
Work to control Japanese knotweed.

Monitoring
- Silvicultural BMPs
- Regeneration
- Research projects

After the annual work plan summary and discussion, the review moved to the field. There was only one proposal site that was of concern and it was decided the Heritage, Fisheries, and SRSF staff would visit Compartment 37 to address more closely the water and habitat issues there.

The ID Team visited the St Johns Rock ORV Trail.

Other proposal sites were not visited.

G. Watershed Improvement Projects

In conjunction with the Youghiogheny Chapter of Trout Unlimited, the Savage River Watershed Association, and students from Frostburg State University efforts are being made to keep our streams clean from debris. The Savage River Watershed Association has also taken the lead in underplanting a number of hemlock stands with red spruce in the hopes of maintaining conifer cover over streams in the advent of serious hemlock woolly adelgid infestation.

E. Ecosystem Restoration Projects

In fiscal year 2012, the Inland Fisheries Service and the staff at SRSF submitted a grant request to implement a "chop and drop" program where woody biomass is selectively added to Big Run to improve habitat for brook trout. This effort should be completed in FY 14 but may run into FY 15. If this effort is successful we will continue the program in other streams.

In the Fairview Wildlife Habitat unit there are a number of areas with exotic and invasive plants that will be controlled in conjunction with the Wildlife and Heritage Service, the Savage River Watershed Association, students from Frostburg State University and other volunteers. These activities will also be occurring prior to silvicultural activity unless they will be controlled during or after the silvicultural treatment.

Along Dry Run there was discovered an infestation of yellow archangel, an urban land cover that we have been working to eliminate from the forest. We expect to be successful because it is limited in size. Because of buried seed, however, it may take a few years of treatment.

Monitoring Projects

On going silvicultural timber operations will be monitored at least weekly and more often during adverse weather conditions.

Regeneration harvests will be monitored 5 and 10 years after harvest.

Ongoing research projects will likely continue in FY 2015.

Submitted Budget Request

The Budget for Savage River State Forest is $638,664. Of that amount, $298,553 goes to fund classified salaries and benefits for four employees, $129,511 goes to fund six contractual employees, and $51,000 to Garrett County in lieu of taxes payment, leaving $159,600 to conduct forest operations. Savage River has for many years generated revenue that greatly exceeded its cost of operation. The majority of revenue is obtained from the sale of forest products. Successful marketing by selling the mix of species and grades of wood products that the market most demanded contributed substantially to successful revenue generation over the years.

Operational Management

1. 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-2014

2. SRSF Funding Sources: Estimated - $638,664

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 the first day of the fiscal year (July 1st). 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 less special funds shown in the budget than was generated on this specific forest. The target for timber sale revenue in FY 15 is $204,000. It is estimated that revenue from recreation activities on the forest will be approximately $20,000.

The second source is included in the Maryland Forest Service's Off Road Vehicle (ORV) Budget. This separate budget is based on revenue generated from ORV permit sales statewide and is allocated back to the state forests through the budgeting process. ORV funds generated as permit sales at SRSF do not necessarily reflect funds allocated back to the SRSF operating budget. These funds must be appropriated before being spent. ORV funds are a restricted special fund and can only be spent for ORV Trail related expenditures. The optimistic estimate for ORV funds in FY 15 is $6,000

3. Operational Cost: Estimated Annual Expenses - $638,664

Operational expenses are those costs paid directly out of the SRSF operational budget by the State Forest Manager. The Forest Manager prepares a proposed operational budget for the forest based on instructions provided by Department of Budget and Management approximately one year in advance of the fiscal year. The FY-2015 budget proposal will be prepared in August of 2013.

-Classified Salaries, Wages and Benefits: $298,553

This cost is associated with Special Funds which are state tax revenues provided annually. These funds are used to pay SRSF Maryland Classified Employee Salaries.

-Contractual Staffing: $129,511

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, visitor services and administrative work, 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 Cost: $159,600

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.

- County Payments: $51,000

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

4. Summary

This is the general breakdown on Revenues and Operational Costs associated with the SRSF. As described, these figures will vary from year to year.

Total Revenue	$638,664
Total Expenditure	$638,664

Appendices

Appendix 1. OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 13-22.sil)

SPECIES >	ALL SP	RM	BC	SB	NRO	CUC	SGH	EH	CO	AB	WA
					COMPOSITION -- BA, % OF BA, TREES						
TOT BA	74.8	21.1	18.9	15.6	10.7	1.9	1.5	1.1	0.7	0.7	0.7
SPECIES%	100.	28.	25.	21.	14.	2.	2.	1.	1.	1.	1.
# TREES	637.	45.	302.	258.	8.	8.	4.	1.	1.	3.	1.
					QUALITY -- % IN AGS						
SAPS	48.	50.	69.	26.	0.	0.	0.	0.	0.	0.	0.
POLES	50.	46.	60.	39.	0.	100.	67.	0.	0.	0.	0.
SM SAW	71.	58.	77.	100.	76.	0.	100.	67.	100.	0.	100.
MED SAW	72.	33.	0.	0.	100.	0.	0.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	58.	51.	67.	33.	86.	100.	75.	67.	100.	0.	100.
					DIAMETERS AND AGES -- INCHES, YEARS						
DIAM	9.8	11.5	7.8	5.5	15.9	6.8	9.5	14.0	13.0	7.0	14.0
DIAM MER	12.1	11.7	12.8	8.5	15.9	6.8	9.5	14.0	13.0	7.0	14.0
QUAD DIA	4.6	9.3	3.4	3.3	15.3	6.6	8.3	13.7	12.9	6.8	13.6
YRS MAT	32.	31.	26.	63.	11.	56.	57.	27.	33.	73.	20.
EFCT AGE	65.	59.	64.	57.	79.	34.	63.	93.	87.	47.	70.
					STRUCTURE						
Q FACTOR	1.45	1.37	1.35	1.49	1.00	2.67	1.78	0.00	0.00	1.78	0.00
					RELATIVE DENSITY -- %						
REL DEN	62.	14.	20.	15.	6.	2.	1.	1.	1.	1.	0.
AGS RDEN	35.	7.	14.	5.	5.	2.	1.	0.	1.	0.	0.
					VOLUMES AND VALUES - INT 1/4" LOG RULE						
GTOT CDS	15.5	5.7	2.8	1.5	3.5	0.3	0.3	0.3	0.2	0.1	0.2
NTOT CDS	12.4	4.6	2.3	1.2	2.8	0.3	0.3	0.2	0.2	0.1	0.2
PULP CDS	8.5	3.4	1.6	1.1	1.4	0.3	0.2	0.1	0.1	0.1	0.1
GRS BDFT	3232.	1177.	507.	63.	1090.	0.	49.	82.	73.	0.	97.
NET BDFT	2510.	773.	411.	32.	987.	0.	41.	61.	61.	0.	82.
DOLLARS	571.	53.	171.	3.	311.	1.	1.	1.	1.	0.	16.

Appendix 1. OVERSTORY SUMMARY - CONTINUED ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 13-22.sil)

SPECIES >	ALL SP	SM	PC	WO	BG
		COMPOSITION -- BA, % OF BA, TREES			
TOT BA	74.8	0.7	0.4	0.4	0.4
SPECIES%	100.	1.	0.	0.	0.
# TREES	637.	1.	4.	0.	1.
		QUALITY -- % IN AGS			
SAPS	48.	0.	0.	0.	0.
POLES	50.	100.	0.	0.	0.
SM SAW	71.	100.	0.	0.	0.
MED SAW	72.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.
ALL SIZE	58.	100.	0.	0.	0.
		DIAMETERS AND AGES -- INCHES, YEARS			
DIAM	9.8	11.0	4.0	20.0	10.0
DIAM MER	12.1	11.0	0.0	20.0	10.0
QUAD DIA	4.6	10.9	4.0	20.0	10.0
YRS MAT	32.	47.	120.	0.	53.
EFCT AGE	65.	73.	0.	133.	67.
		STRUCTURE			
Q FACTOR	1.45	0.00	0.00	0.00	0.00
		RELATIVE DENSITY -- %			
REL DEN	62.	1.	0.	0.	0.
AGS RDEN	35.	1.	0.	0.	0.
		VOLUMES AND VALUES - INT 1/4" LOG RULE			
GTOT CDS	15.5	0.2	0.0	0.1	0.1
NTOT CDS	12.4	0.2	0.0	0.1	0.1
PULP CDS	8.5	0.1	0.0	0.1	0.1
GRS BDFT	3232.	59.	0.	36.	0.
NET BDFT	2510.	30.	0.	33.	0.
DOLLARS	571.	1.	0.	13.	0.

Appendix 2. OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 37-3.sil)

SPECIES >	ALL SP	NRO	RM	SM	WO	CO	BC	BAS	SB	BO	CUC
					COMPOSITION -- BA, % OF BA, TREES						
TOT BA	151.7	56.5	46.1	13.0	9.6	7.8	6.1	3.0	2.6	2.2	1.7
SPECIES%	100.	37.	30.	9.	6.	5.	4.	2.	2.	1.	1.
# TREES	503.	36.	290.	96.	10.	9.	8.	4.	32.	2.	3.
					QUALITY -- % IN AGS						
SAPS	22.	0.	0.	100.	0.	0.	0.	0.	0.	0.	0.
POLES	50.	62.	26.	100.	100.	100.	75.	100.	0.	0.	100.
SM SAW	83.	91.	80.	75.	100.	38.	100.	100.	0.	100.	100.
MED SAW	88.	91.	100.	100.	71.	67.	100.	0.	0.	0.	100.
LG SAW	91.	91.	0.	0.	100.	0.	0.	0.	0.	0.	0.
ALL SIZE	72.	89.	42.	93.	91.	61.	93.	100.	0.	100.	100.
					DIAMETERS AND AGES -- INCHES, YEARS						
DIAM	14.4	20.4	9.2	9.3	16.0	14.4	12.1	12.6	6.0	15.2	15.0
DIAM MER	15.2	20.4	10.1	10.6	16.0	14.4	12.1	12.6	7.5	15.2	15.0
QUAD DIA	7.4	17.1	5.4	5.0	13.1	12.3	11.5	12.3	3.9	15.1	10.3
YRS MAT	15.	0.	39.	49.	13.	24.	29.	27.	70.	19.	15.
EFCT AGE	81.	102.	51.	71.	107.	96.	61.	63.	50.	101.	75.
					STRUCTURE						
Q FACTOR	1.45	1.04	1.88	1.52	1.03	1.16	0.97	1.36	0.00	0.00	0.00
					RELATIVE DENSITY -- %						
REL DEN	106.	28.	35.	13.	9.	7.	3.	2.	2.	2.	1.
AGS RDEN	71.	25.	12.	12.	8.	5.	3.	2.	0.	2.	1.
					VOLUMES AND VALUES - INT 1/4" LOG RULE						
GTOT CDS	42.9	19.3	10.3	2.7	3.1	2.5	1.9	0.9	0.3	0.7	0.5
NTOT CDS	34.3	15.5	8.3	2.2	2.5	2.0	1.5	0.8	0.2	0.6	0.4
PULP CDS	16.1	4.6	6.0	1.5	1.0	1.0	0.9	0.3	0.2	0.2	0.1
GRS BDFT	15059.	8366.	2399.	610.	1142.	749.	561.	355.	100.	313.	236.
NET BDFT	12817.	7877.	1519.	401.	999.	652.	418.	294.	30.	281.	213.
DOLLARS	3594.	2993.	86.	25.	317.	16.	115.	6.	1.	4.	13.

Appendix 2. OVERSTORY SUMMARY - CONTINUED ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 37-3.sil)

SPECIES >	ALL SP	WA	AB	AE	BL	SAS
		COMPOSITION -- BA, % OF BA, TREES				
TOT BA	151.7	1.3	0.4	0.4	0.4	0.4
SPECIES%	100.	1.	0.	0.	0.	0.
# TREES	503.	2.	5.	1.	1.	5.
		QUALITY -- % IN AGS				
SAPS	22.	0.	0.	0.	0.	0.
POLES	50.	100.	0.	100.	0.	0.
SM SAW	83.	100.	0.	0.	0.	0.
MED SAW	88.	100.	0.	0.	0.	0.
LG SAW	91.	0.	0.	0.	0.	0.
ALL SIZE	72.	100.	0.	100.	0.	0.
		DIAMETERS AND AGES -- INCHES, YEARS				
DIAM	14.4	12.7	4.0	10.0	12.0	4.0
DIAM MER	15.2	12.7	0.0	10.0	12.0	0.0
QUAD DIA	7.4	10.8	4.0	10.0	12.0	4.0
YRS MAT	15.	27.	120.	53.	40.	120.
EFCT AGE	81.	63.	0.	67.	80.	0.
		STRUCTURE				
Q FACTOR	1.45	0.00	0.00	0.00	0.00	0.00
		RELATIVE DENSITY -- %				
REL DEN	106.	1.	0.	0.	0.	0.
AGS RDEN	71.	1.	0.	0.	0.	0.
		VOLUMES AND VALUES - INT 1/4" LOG RULE				
GTOT CDS	42.9	0.4	0.0	0.1	0.1	0.0
NTOT CDS	34.3	0.3	0.0	0.1	0.1	0.0
PULP CDS	16.1	0.2	0.0	0.1	0.0	0.0
GRS BDFT	15059.	113.	0.	0.	115.	0.
NET BDFT	12817.	98.	0.	0.	35.	0.
DOLLARS	3594.	17.	0.	0.	0.	0.

Appendix 3. OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Aug 1 2013 - 37-4.sil)

SPECIES >	ALL SP	NRO	RM	BC	SB	WO	CO	CUC	WA	SM	AB
					COMPOSITION -- BA, % OF BA, TREES						
TOT BA	131.4	67.6	38.6	7.1	6.9	2.4	2.1	2.1	1.0	0.7	0.7
SPECIES%	100.	51.	29.	5.	5.	2.	2.	2.	1.	1.	1.
# TREES	561.	45.	208.	69.	149.	3.	2.	27.	6.	23.	3.
					QUALITY -- % IN AGS						
SAPS	55.	0.	61.	67.	7.	0.	0.	100.	100.	100.	0.
POLES	59.	83.	56.	73.	50.	100.	0.	50.	0.	100.	33.
SM SAW	88.	89.	89.	100.	50.	67.	83.	100.	100.	0.	0.
MED SAW	95.	96.	88.	100.	0.	100.	50.	0.	0.	0.	0.
LG SAW	92.	93.	0.	100.	0.	100.	100.	100.	0.	0.	0.
ALL SIZE	80.	92.	69.	80.	28.	90.	78.	89.	100.	100.	33.
					DIAMETERS AND AGES -- INCHES, YEARS						
DIAM	14.2	18.4	9.8	10.0	5.7	16.4	16.7	9.3	10.0	4.0	7.3
DIAM MER	15.6	18.4	11.1	13.0	9.1	16.4	16.7	12.7	16.0	8.0	7.3
QUAD DIA	6.6	16.6	5.8	4.4	2.9	12.3	15.3	3.8	5.5	2.4	6.8
YRS MAT	12.	0.	35.	25.	59.	11.	9.	27.	10.	67.	71.
EFCT AGE	80.	92.	55.	65.	61.	109.	111.	63.	80.	53.	49.
					STRUCTURE						
Q FACTOR	1.35	1.13	1.68	2.36	2.15	0.00	0.00	0.00	0.00	0.00	0.00
					RELATIVE DENSITY -- %						
REL DEN	87.	35.	29.	6.	7.	2.	2.	2.	1.	1.	1.
AGS RDEN	66.	32.	19.	5.	1.	2.	2.	2.	1.	1.	0.
					VOLUMES AND VALUES - INT 1/4" LOG RULE						
GTOT CDS	36.5	23.0	8.8	1.4	0.7	0.8	0.7	0.4	0.2	0.1	0.1
NTOT CDS	29.2	18.4	7.0	1.1	0.6	0.6	0.6	0.3	0.1	0.0	0.1
PULP CDS	12.8	5.9	4.8	0.7	0.5	0.3	0.2	0.2	0.0	0.0	0.1
GRS BDFT	13228.	9570.	2236.	352.	218.	266.	267.	133.	90.	0.	0.
NET BDFT	11419.	8857.	1434.	318.	77.	239.	234.	115.	79.	0.	0.
DOLLARS	3433.	3053.	83.	174.	1.	85.	6.	6.	23.	0.	0.

Appendix 3. OVERSTORY SUMMARY - CONTINUED ORIGINAL STAND (2012) - LIVE TREES ONLY

(Aug 1 2013 - 37-4.sil)

SPECIES >	ALL SP	PH	BAS	MH	OHW	SAS	BO	BL
		COMPOSITION -- BA, % OF BA, TREES						
TOT BA	131.4	0.5	0.5	0.2	0.2	0.2	0.2	0.2
SPECIES%	100.	0.	0.	0.	0.	0.	0.	0.
# TREES	561.	22.	2.	0.	0.	0.	0.	3.
		QUALITY -- % IN AGS						
SAPS	55.	100.	0.	0.	0.	0.	0.	100.
POLES	59.	0.	0.	0.	100.	0.	0.	0.
SM SAW	88.	0.	0.	100.	0.	0.	0.	0.
MED SAW	95.	0.	0.	0.	0.	0.	100.	0.
LG SAW	92.	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	80.	100.	0.	100.	100.	0.	100.	100.
		DIAMETERS AND AGES -- INCHES, YEARS						
DIAM	14.2	2.0	8.0	14.0	10.0	12.0	18.0	4.0
DIAM MER	15.6	0.0	8.0	14.0	10.0	12.0	18.0	0.0
QUAD DIA	6.6	2.0	7.3	14.0	10.0	12.0	18.0	4.0
YRS MAT	12.	120.	50.	27.	53.	40.	0.	120.
EFCT AGE	80.	0.	40.	93.	67.	80.	120.	0.
		STRUCTURE						
Q FACTOR	1.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		RELATIVE DENSITY -- %						
REL DEN	87.	1.	0.	0.	0.	0.	0.	0.
AGS RDEN	66.	1.	0.	0.	0.	0.	0.	0.
		VOLUMES AND VALUES - INT 1/4" LOG RULE						
GTOT CDS	36.5	0.0	0.1	0.1	0.1	0.1	0.1	0.0
NTOT CDS	29.2	0.0	0.1	0.1	0.1	0.0	0.1	0.0
PULP CDS	12.8	0.0	0.1	0.0	0.1	0.0	0.0	0.0
GRS BDFT	13228.	0.	0.	39.	0.	18.	38.	0.
NET BDFT	11419.	0.	0.	33.	0.	0.	35.	0.
DOLLARS	3433.	0.	0.	0.	0.	0.	1.	0.

Appendix 4. OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 37-17.sil)

SPECIES >	ALL SP	NRO	RM	CO	WO	SB	BO	BC	CUC	EH
					COMPOSITION -- BA, % OF BA, TREES					
TOT BA	137.6	85.3	25.9	11.4	6.7	5.5	1.4	1.0	0.4	0.2
SPECIES%	100.	62.	19.	8.	5.	4.	1.	1.	0.	0.
# TREES	260.	74.	128.	16.	9.	25.	1.	4.	3.	0.
					QUALITY -- % IN AGS					
SAPS	44.	0.	35.	0.	0.	50.	0.	100.	100.	0.
POLES	65.	84.	58.	77.	100.	24.	100.	0.	100.	100.
SM SAW	87.	93.	58.	70.	95.	0.	80.	0.	0.	0.
MED SAW	78.	81.	0.	44.	33.	0.	0.	100.	0.	0.
LG SAW	75.	75.	0.	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	77.	88.	55.	69.	91.	25.	71.	60.	100.	100.
					DIAMETERS AND AGES -- INCHES, YEARS					
DIAM	13.7	15.9	8.5	12.8	13.1	8.4	14.6	12.4	5.0	10.0
DIAM MER	14.1	15.9	9.2	12.8	13.1	9.5	14.6	14.5	6.0	10.0
QUAD DIA	9.9	14.5	6.1	11.3	12.0	6.4	13.1	7.1	4.7	10.0
YRS MAT	20.	11.	44.	34.	33.	56.	23.	17.	60.	53.
EFCT AGE	74.	79.	46.	86.	87.	64.	97.	72.	30.	67.
					STRUCTURE					
Q FACTOR	1.39	0.98	2.10	1.16	1.08	1.41	0.00	0.00	0.00	0.00
					RELATIVE DENSITY -- %					
REL DEN	91.	47.	20.	11.	6.	4.	1.	1.	0.	0.
AGS RDEN	69.	42.	11.	8.	6.	1.	1.	0.	0.	0.
					VOLUMES AND VALUES - INT 1/4" LOG RULE					
GTOT CDS	40.4	27.8	5.4	3.4	2.0	1.0	0.4	0.2	0.0	0.0
NTOT CDS	32.3	22.3	4.4	2.7	1.6	0.8	0.3	0.2	0.0	0.0
PULP CDS	18.7	11.1	3.8	1.8	1.0	0.7	0.2	0.1	0.0	0.0
GRS BDFT	10725.	8543.	655.	666.	504.	149.	129.	79.	0.	0.
NET BDFT	9416.	7770.	398.	570.	430.	62.	116.	70.	0.	0.
DOLLARS	2706.	2508.	26.	15.	117.	2.	3.	36.	0.	0.

Appendix 5. OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 37-19.sil)

SPECIES >	ALL SP	NRO	CO	RM	BG	SB	WO	SAS	CUC	AMC	EH
					COMPOSITION -- BA, % OF BA, TREES						
TOT BA	126.7	53.6	32.7	20.0	8.8	4.2	2.7	2.4	0.6	0.6	0.3
SPECIES%	100.	42.	26.	16.	7.	3.	2.	2.	0.	0.	0.
# TREES	406.	51.	45.	113.	76.	26.	4.	65.	1.	7.	1.
					QUALITY -- % IN AGS						
SAPS	3.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
POLES	53.	80.	82.	44.	0.	0.	100.	0.	100.	0.	100.
SM SAW	86.	93.	80.	73.	0.	0.	100.	0.	0.	0.	0.
MED SAW	83.	89.	60.	0.	0.	0.	0.	0.	0.	0.	0.
LG SAW	100.	100.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	68.	91.	80.	41.	0.	0.	100.	0.	50.	0.	100.
					DIAMETERS AND AGES -- INCHES, YEARS						
DIAM	11.9	14.9	12.6	7.8	5.5	9.0	11.1	3.8	11.0	4.0	10.0
DIAM MER	12.7	14.9	12.6	8.7	6.9	10.0	11.1	7.0	11.0	0.0	10.0
QUAD DIA	7.6	13.9	11.5	5.7	4.6	5.5	10.9	2.6	9.8	4.0	10.0
YRS MAT	30.	16.	36.	46.	74.	53.	46.	73.	35.	120.	53.
EFCT AGE	71.	74.	84.	44.	46.	67.	74.	47.	55.	0.	67.
					STRUCTURE						
Q FACTOR	1.58	0.91	1.00	2.25	3.91	1.40	2.40	0.00	0.00	0.00	0.00
					RELATIVE DENSITY -- %						
REL DEN	97.	30.	31.	16.	8.	3.	3.	3.	0.	1.	0.
AGS RDEN	62.	28.	25.	6.	0.	0.	3.	0.	0.	0.	0.
					VOLUMES AND VALUES - INT 1/4" LOG RULE						
GTOT CDS	33.7	17.2	9.8	3.8	0.9	0.8	0.8	0.1	0.2	0.0	0.1
NTOT CDS	26.9	13.8	7.9	3.0	0.7	0.7	0.6	0.0	0.1	0.0	0.0
PULP CDS	14.2	5.3	4.4	2.6	0.7	0.5	0.5	0.0	0.1	0.0	0.0
GRS BDFT	10076.	6458.	2685.	511.	0.	301.	120.	0.	0.	0.	0.
NET BDFT	8597.	5820.	2266.	297.	0.	117.	98.	0.	0.	0.	0.
DOLLARS	1778.	1700.	38.	17.	1.	2.	20.	0.	0.	0.	0.

Appendix 5. OVERSTORY SUMMARY - CONTINUED ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 37-19.sil)

SPECIES >	ALL SP	SVB	BO
		COMPOSITION -- BA, % OF BA, TREES	
TOT BA	126.7	0.3	0.3
SPECIES%	100.	0.	0.
# TREES	406.	3.	14.
		QUALITY -- % IN AGS	
SAPS	3.	0.	100.
POLES	53.	0.	0.
SM SAW	86.	0.	0.
MED SAW	83.	0.	0.
LG SAW	100.	0.	0.
ALL SIZE	68.	0.	100.
		DIAMETERS AND AGES -- INCHES, YEARS	
DIAM	11.9	4.0	2.0
DIAM MER	12.7	0.0	0.0
QUAD DIA	7.6	4.0	2.0
YRS MAT	30.	120.	120.
EFCT AGE	71.	0.	0.
		STRUCTURE	
Q FACTOR	1.58	0.00	0.00
		RELATIVE DENSITY -- %	
REL DEN	97.	0.	0.
AGS RDEN	62.	0.	0.
		VOLUMES AND VALUES - INT 1/4" LOG RULE	
GTOT CDS	33.7	0.0	0.0
NTOT CDS	26.9	0.0	0.0
PULP CDS	14.2	0.0	0.0
GRS BDFT	10076.	0.	0.
NET BDFT	8597.	0.	0.
DOLLARS	1778.	0.	0.

Appendix 6. OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 37-23.sil)

SPECIES >	ALL SP	NRO	RM	EH	WO	CO	SB	SM	CUC	BC	SAS
					COMPOSITION -- BA, % OF BA, TREES						
TOT BA	178.3	93.1	33.1	21.4	10.7	9.3	4.5	4.1	0.7	0.7	0.3
SPECIES%	100.	52.	19.	12.	6.	5.	3.	2.	0.	0.	0.
# TREES	496.	61.	158.	98.	8.	9.	120.	37.	4.	0.	0.
					QUALITY -- % IN AGS						
SAPS	32.	0.	21.	67.	0.	0.	0.	100.	0.	0.	0.
POLES	78.	100.	65.	100.	100.	60.	0.	86.	0.	0.	0.
SM SAW	85.	90.	64.	89.	86.	89.	0.	100.	100.	50.	0.
MED SAW	88.	89.	0.	0.	93.	75.	0.	0.	0.	0.	0.
LG SAW	69.	70.	0.	0.	50.	100.	0.	0.	0.	0.	0.
ALL SIZE	79.	88.	58.	92.	87.	78.	0.	92.	50.	50.	0.
					DIAMETERS AND AGES -- INCHES, YEARS						
DIAM	14.3	18.0	8.5	9.3	17.2	16.1	3.4	6.7	8.0	16.0	12.0
DIAM MER	15.3	18.0	9.4	10.3	17.2	16.1	8.0	8.2	12.0	16.0	12.0
QUAD DIA	8.1	16.8	6.2	6.3	16.0	13.5	2.6	4.6	5.4	16.0	12.0
YRS MAT	15.	0.	43.	52.	5.	12.	67.	65.	30.	10.	40.
EFCT AGE	82.	90.	47.	68.	115.	108.	53.	55.	60.	80.	80.
					STRUCTURE						
Q FACTOR	1.41	1.11	2.03	1.63	1.57	1.10	0.00	2.04	0.00	0.00	0.00
					RELATIVE DENSITY -- %						
REL DEN	120.	48.	26.	16.	10.	9.	5.	4.	1.	0.	0.
AGS RDEN	91.	43.	14.	14.	9.	7.	0.	4.	0.	0.	0.
					VOLUMES AND VALUES - INT 1/4" LOG RULE						
GTOT CDS	49.8	31.7	7.0	3.3	3.6	3.0	0.1	0.6	0.1	0.2	0.1
NTOT CDS	39.8	25.4	5.6	2.6	2.9	2.4	0.1	0.5	0.1	0.2	0.0
PULP CDS	18.5	9.2	4.6	1.8	1.1	1.1	0.1	0.4	0.0	0.1	0.0
GRS BDFT	16696.	12220.	1097.	714.	1367.	1045.	0.	55.	34.	93.	27.
NET BDFT	14788.	11264.	676.	538.	1209.	926.	0.	28.	28.	79.	0.
DOLLARS	4334.	3818.	41.	13.	393.	29.	0.	1.	0.	38.	0.

Appendix 6. OVERSTORY SUMMARY - CONTINUED ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 37-23.sil)

SPECIES >	ALL SP	SO
		COMPOSITION -- BA, % OF BA, TREES
TOT BA	178.3	0.3
SPECIES%	100.	0.
# TREES	496.	0.
		QUALITY -- % IN AGS
SAPS	32.	0.
POLES	78.	0.
SM SAW	85.	0.
MED SAW	88.	0.
LG SAW	69.	0.
ALL SIZE	79.	0.
		DIAMETERS AND AGES -- INCHES, YEARS
DIAM	14.3	16.0
DIAM MER	15.3	16.0
QUAD DIA	8.1	16.0
YRS MAT	15.	13.
EFCT AGE	82.	107.
		STRUCTURE
Q FACTOR	1.41	0.00
		RELATIVE DENSITY -- %
REL DEN	120.	0.
AGS RDEN	91.	0.
		VOLUMES AND VALUES - INT 1/4" LOG RULE
GTOT CDS	49.8	0.1
NTOT CDS	39.8	0.1
PULP CDS	18.5	0.0
GRS BDFT	16696.	44.
NET BDFT	14788.	40.
DOLLARS	4334.	0.

Appendix 7. OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 37-24.sil)

SPECIES >	ALL SP	NRO	RM	CO	SB	EH	WO	SM	SVB	BC	CUC
COMPOSITION -- BA, % OF BA, TREES											
TOT BA	163.7	92.7	38.0	17.3	6.7	3.7	2.3	1.0	0.7	0.7	0.3
SPECIES%	100.	57.	23.	11.	4.	2.	1.	1.	0.	0.	0.
# TREES	342.	60.	172.	15.	70.	12.	1.	2.	3.	2.	1.
QUALITY -- % IN AGS											
SAPS	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
POLES	40.	100.	31.	60.	0.	100.	0.	100.	0.	0.	100.
SM SAW	84.	93.	62.	73.	0.	100.	100.	0.	0.	0.	0.
MED SAW	82.	86.	100.	52.	0.	0.	100.	0.	0.	0.	0.
LG SAW	61.	68.	0.	25.	0.	0.	50.	0.	0.	0.	0.
ALL SIZE	67.	86.	35.	60.	0.	100.	86.	67.	0.	0.	100.
DIAMETERS AND AGES -- INCHES, YEARS											
DIAM	15.0	18.3	8.6	16.7	6.7	8.2	19.1	11.3	7.0	8.0	8.0
DIAM MER	15.6	18.3	9.4	16.7	9.3	8.2	19.1	11.3	7.0	8.0	8.0
QUAD DIA	9.4	16.8	6.4	14.6	4.2	7.5	18.2	10.1	6.8	7.3	8.0
YRS MAT	12.	0.	43.	8.	58.	65.	0.	44.	73.	50.	50.
EFCT AGE	82.	92.	47.	112.	62.	55.	128.	76.	47.	40.	40.
STRUCTURE											
Q FACTOR	1.36	1.13	2.00	1.02	2.22	1.78	0.00	0.00	0.00	0.00	0.00
RELATIVE DENSITY -- %											
REL DEN	108.	48.	30.	16.	6.	3.	2.	1.	1.	0.	0.
AGS RDEN	66.	42.	9.	10.	0.	3.	2.	1.	0.	0.	0.
VOLUMES AND VALUES - INT 1/4" LOG RULE											
GTOT CDS	48.2	31.6	8.2	5.7	0.7	0.5	0.8	0.3	0.1	0.2	0.1
NTOT CDS	38.4	25.3	6.5	4.6	0.6	0.4	0.6	0.2	0.0	0.1	0.1
PULP CDS	16.9	8.2	5.3	2.0	0.5	0.3	0.2	0.2	0.0	0.1	0.1
GRS BDFT	16913.	13013.	1325.	2044.	126.	64.	341.	0.	0.	0.	0.
NET BDFT	15081.	12024.	819.	1809.	78.	44.	307.	0.	0.	0.	0.
DOLLARS	4338.	4120.	50.	53.	3.	1.	111.	0.	0.	0.	0.

Appendix 7. OVERSTORY SUMMARY - CONTINUED ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 37-24.sil)

SPECIES >	ALL SP	BG
COMPOSITION -- BA, % OF BA, TREES		
TOT BA	163.7	0.3
SPECIES%	100.	0.
# TREES	342.	4.
QUALITY -- % IN AGS		
SAPS	0.	0.
POLES	40.	0.
SM SAW	84.	0.
MED SAW	82.	0.
LG SAW	61.	0.
ALL SIZE	67.	0.
DIAMETERS AND AGES -- INCHES, YEARS		
DIAM	15.0	4.0
DIAM MER	15.6	0.0
QUAD DIA	9.4	4.0
YRS MAT	12.	120.
EFCT AGE	82.	0.
STRUCTURE		
Q FACTOR	1.36	0.00
RELATIVE DENSITY -- %		
REL DEN	108.	0.
AGS RDEN	66.	0.
VOLUMES AND VALUES - INT 1/4" LOG RULE		
GTOT CDS	48.2	0.0
NTOT CDS	38.4	0.0
PULP CDS	16.9	0.0
GRS BDFT	16913.	0.
NET BDFT	15081.	0.
DOLLARS	4338.	0.

Appendix 8. OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 38-2.sil)

SPECIES >	ALL SP	NRO	BC	RM	BAS	CUC	SB	BTA	SAS	SVB	YB
					COMPOSITION -- BA, % OF BA, TREES						
TOT BA	128.8	32.5	28.8	20.0	18.8	8.8	6.2	5.0	3.8	1.2	1.2
SPECIES%	100.	25.	22.	16.	15.	7.	5.	4.	3.	1.	1.
# TREES	1603.	185.	365.	239.	281.	139.	158.	20.	86.	57.	14.
					QUALITY -- % IN AGS						
SAPS	50.	33.	56.	67.	67.	100.	0.	0.	0.	0.	0.
POLES	72.	50.	71.	75.	100.	75.	0.	100.	0.	0.	0.
SM SAW	67.	83.	0.	67.	33.	0.	0.	0.	0.	0.	0.
MED SAW	83.	83.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LG SAW	100.	100.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	63.	65.	65.	69.	67.	86.	0.	100.	0.	0.	0.
					DIAMETERS AND AGES -- INCHES, YEARS						
DIAM	7.3	11.9	5.7	6.2	6.0	6.6	3.2	7.0	3.3	2.0	4.0
DIAM MER	10.3	13.1	7.4	9.7	10.0	9.5	0.0	7.0	0.0	0.0	0.0
QUAD DIA	3.8	5.7	3.8	3.9	3.5	3.4	2.7	6.8	2.8	2.0	4.0
YRS MAT	40.	24.	53.	41.	40.	42.	120.	73.	120.	120.	120.
EFCT AGE	54.	66.	37.	49.	50.	48.	0.	47.	0.	0.	0.
					STRUCTURE						
Q FACTOR	1.88	1.49	2.89	1.57	2.07	0.52	0.00	1.78	0.00	0.00	0.00
					RELATIVE DENSITY -- %						
REL DEN	118.	23.	29.	19.	18.	8.	7.	4.	4.	2.	1.
AGS RDEN	70.	13.	18.	13.	12.	7.	0.	4.	0.	0.	0.
					VOLUMES AND VALUES - INT 1/4" LOG RULE						
GTOT CDS	17.4	7.8	3.4	2.0	1.7	1.3	0.0	0.9	0.0	0.0	0.0
NTOT CDS	13.9	6.2	2.8	1.6	1.3	1.0	0.0	0.7	0.0	0.0	0.0
PULP CDS	10.1	3.4	2.8	1.1	0.8	1.0	0.0	0.7	0.0	0.0	0.0
GRS BDFT	3023.	2032.	0.	582.	409.	0.	0.	0.	0.	0.	0.
NET BDFT	2555.	1865.	0.	344.	347.	0.	0.	0.	0.	0.	0.
DOLLARS	665.	627.	6.	16.	12.	2.	0.	1.	0.	0.	0.

Appendix 8. OVERSTORY SUMMARY - CONTINUED ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 38-2.sil)

SPECIES >	ALL SP	AB	PH
		COMPOSITION -- BA, % OF BA, TREES	
TOT BA	128.8	1.2	1.2
SPECIES%	100.	1.	1.
# TREES	1603.	57.	2.
		QUALITY -- % IN AGS	
SAPS	50.	100.	0.
POLES	72.	0.	100.
SM SAW	67.	0.	0.
MED SAW	83.	0.	0.
LG SAW	100.	0.	0.
ALL SIZE	63.	100.	100.
		DIAMETERS AND AGES -- INCHES, YEARS	
DIAM	7.3	2.0	10.0
DIAM MER	10.3	0.0	10.0
QUAD DIA	3.8	2.0	10.0
YRS MAT	40.	120.	53.
EFCT AGE	54.	0.	67.
		STRUCTURE	
Q FACTOR	1.88	0.00	0.00
		RELATIVE DENSITY -- %	
REL DEN	118.	2.	1.
AGS RDEN	70.	2.	1.
		VOLUMES AND VALUES - INT 1/4" LOG RULE	
GTOT CDS	17.4	0.0	0.3
NTOT CDS	13.9	0.0	0.3
PULP CDS	10.1	0.0	0.3
GRS BDFT	3023.	0.	0.
NET BDFT	2555.	0.	0.
DOLLARS	665.	0.	1.

Appendix 9. OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 38-28.sil)

SPECIES >	ALL SP	RM	NRO	BC	CO	SM	SB	WO	PH	BL	WA
					COMPOSITION -- BA, % OF BA, TREES						
TOT BA	131.8	28.2	25.9	23.6	14.1	10.5	8.2	5.9	4.1	3.2	2.7
SPECIES%	100.	21.	20.	18.	11.	8.	6.	4.	3.	2.	2.
# TREES	287.	84.	29.	32.	10.	39.	42.	13.	9.	3.	3.
					QUALITY -- % IN AGS						
SAPS	42.	12.	100.	0.	0.	100.	0.	100.	100.	0.	0.
POLES	54.	52.	80.	62.	50.	100.	0.	67.	67.	0.	100.
SM SAW	76.	60.	100.	90.	89.	86.	17.	100.	100.	40.	0.
MED SAW	79.	62.	85.	91.	71.	100.	0.	83.	100.	0.	50.
LG SAW	67.	0.	79.	100.	33.	50.	0.	0.	0.	0.	0.
ALL SIZE	68.	52.	84.	85.	68.	91.	6.	69.	89.	29.	67.
					DIAMETERS AND AGES -- INCHES, YEARS						
DIAM	15.0	11.5	20.6	14.3	18.6	14.8	9.2	16.8	13.8	14.3	16.3
DIAM MER	15.8	12.6	21.2	14.5	18.6	15.9	10.0	17.8	15.0	14.3	16.3
QUAD DIA	9.2	7.8	12.7	11.7	16.2	7.0	5.9	9.3	9.1	13.2	12.1
YRS MAT	12.	27.	0.	18.	0.	14.	53.	1.	20.	25.	8.
EFCT AGE	87.	63.	106.	72.	124.	106.	67.	119.	100.	95.	82.
					STRUCTURE						
Q FACTOR	1.35	1.47	1.07	1.15	1.06	1.23	1.20	0.00	0.00	0.00	0.00
					RELATIVE DENSITY -- %						
REL DEN	88.	20.	14.	10.	13.	10.	6.	6.	3.	2.	1.
AGS RDEN	58.	9.	12.	8.	9.	9.	0.	4.	2.	1.	1.
					VOLUMES AND VALUES - INT 1/4" LOG RULE						
GTOT CDS	38.5	7.2	8.6	7.5	4.8	2.8	1.8	1.7	1.1	1.0	0.9
NTOT CDS	30.7	5.8	6.9	6.0	3.8	2.2	1.4	1.4	0.9	0.8	0.7
PULP CDS	13.9	3.3	2.2	2.4	1.6	0.9	1.1	0.6	0.4	0.5	0.3
GRS BDFT	14213.	2310.	3550.	2998.	1747.	1211.	644.	602.	400.	241.	291.
NET BDFT	11619.	1603.	3364.	2478.	1567.	920.	221.	544.	356.	101.	271.
DOLLARS	2918.	106.	1353.	982.	54.	91.	3.	215.	4.	2.	99.

Appendix 9. OVERSTORY SUMMARY - CONTINUED ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 38-28.sil)

SPECIES >	ALL SP	BAS	MH	OST	BG	SVB
		COMPOSITION -- BA, % OF BA, TREES				
TOT BA	131.8	1.8	1.4	0.9	0.9	0.5
SPECIES%	100.	1.	1.	1.	1.	0.
# TREES	287.	2.	8.	8.	4.	1.
		QUALITY -- % IN AGS				
SAPS	42.	0.	100.	0.	0.	0.
POLES	54.	0.	100.	0.	100.	0.
SM SAW	76.	100.	0.	0.	0.	0.
MED SAW	79.	0.	0.	0.	0.	0.
LG SAW	67.	0.	0.	0.	0.	0.
ALL SIZE	68.	75.	100.	0.	100.	0.
		DIAMETERS AND AGES -- INCHES, YEARS				
DIAM	15.0	14.5	6.7	5.0	7.0	8.0
DIAM MER	15.8	14.5	8.0	6.0	7.0	8.0
QUAD DIA	9.2	13.6	5.7	4.7	6.8	8.0
YRS MAT	12.	18.	67.	80.	73.	67.
EFCT AGE	87.	72.	53.	40.	47.	53.
		STRUCTURE				
Q FACTOR	1.35	0.00	0.00	0.00	1.78	0.00
		RELATIVE DENSITY -- %				
REL DEN	88.	1.	1.	1.	1.	0.
AGS RDEN	58.	1.	1.	0.	1.	0.
		VOLUMES AND VALUES - INT 1/4" LOG RULE				
GTOT CDS	38.5	0.6	0.2	0.1	0.2	0.1
NTOT CDS	30.7	0.5	0.2	0.0	0.1	0.0
PULP CDS	13.9	0.2	0.2	0.0	0.1	0.0
GRS BDFT	14213.	220.	0.	0.	0.	0.
NET BDFT	11619.	194.	0.	0.	0.	0.
DOLLARS	2918.	8.	0.	0.	0.	0.

Appendix 10. OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 76-1.sil)

SPECIES >	ALL SP	NRO	EH	BG	RM	CO	SAS
			COMPOSITION -- BA, % OF BA, TREES				
TOT BA	140.0	30.0	30.0	20.0	20.0	20.0	20.0
SPECIES%	100.	21.	21.	14.	14.	14.	14.
# TREES	984.	73.	65.	80.	509.	28.	229.
			QUALITY -- % IN AGS				
SAPS	0.	0.	0.	0.	0.	0.	0.
POLES	62.	100.	100.	0.	0.	100.	0.
SM SAW	100.	100.	0.	0.	0.	100.	0.
MED SAW	0.	0.	0.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	57.	100.	100.	0.	0.	100.	0.
			DIAMETERS AND AGES -- INCHES, YEARS				
DIAM	8.1	10.7	9.3	7.0	4.0	12.0	4.0
DIAM MER	9.5	10.7	9.3	7.0	6.0	12.0	0.0
QUAD DIA	5.1	8.7	9.2	6.8	2.7	11.5	4.0
YRS MAT	51.	37.	58.	73.	60.	40.	120.
EFCT AGE	56.	53.	62.	47.	30.	80.	0.
			STRUCTURE				
Q FACTOR	1.77	1.54	0.78	1.78	0.00	1.40	0.00
			RELATIVE DENSITY -- %				
REL DEN	120.	21.	21.	16.	21.	19.	22.
AGS RDEN	61.	21.	21.	0.	0.	19.	0.
			VOLUMES AND VALUES - INT 1/4" LOG RULE				
GTOT CDS	22.7	7.4	4.4	3.7	1.4	5.8	0.0
NTOT CDS	18.2	6.0	3.5	2.9	1.1	4.7	0.0
PULP CDS	15.1	3.6	3.5	2.9	1.1	3.9	0.0
GRS BDFT	2507.	1872.	0.	0.	0.	636.	0.
NET BDFT	2164.	1628.	0.	0.	0.	536.	0.
DOLLARS	416.	385.	7.	6.	2.	16.	0.

Appendix 11. OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 76-2.sil)

SPECIES >	ALL SP	RM	NRO	CO	SB	WO	BG	SAS	CUC
				COMPOSITION -- BA, % OF BA, TREES					
TOT BA	114.7	34.7	25.3	20.0	12.7	8.7	8.7	4.0	0.7
SPECIES%	100.	30.	22.	17.	11.	8.	8.	3.	1.
# TREES	523.	211.	29.	28.	153.	14.	59.	27.	1.
				QUALITY -- % IN AGS					
SAPS	4.	8.	0.	0.	0.	0.	0.	0.	0.
POLES	43.	54.	29.	100.	0.	80.	0.	0.	100.
SM SAW	82.	60.	89.	69.	0.	100.	0.	0.	0.
MED SAW	89.	0.	100.	83.	0.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	52.	44.	79.	80.	0.	92.	0.	0.	100.
				DIAMETERS AND AGES -- INCHES, YEARS					
DIAM	9.8	7.1	13.9	13.1	5.7	11.7	5.8	6.7	10.0
DIAM MER	10.9	8.1	13.9	13.1	7.2	11.7	7.0	9.3	10.0
QUAD DIA	6.3	5.5	12.6	11.4	3.9	10.8	5.2	5.2	10.0
YRS MAT	40.	50.	20.	32.	72.	42.	73.	58.	40.
EFCT AGE	62.	40.	70.	88.	48.	78.	47.	62.	50.
				STRUCTURE					
Q FACTOR	1.69	2.11	1.07	1.12	4.08	1.28	1.78	0.78	0.00
				RELATIVE DENSITY -- %					
REL DEN	96.	30.	15.	19.	12.	8.	8.	4.	0.
AGS RDEN	47.	12.	11.	15.	0.	8.	0.	0.	0.
				VOLUMES AND VALUES - INT 1/4" LOG RULE					
GTOT CDS	24.7	5.4	7.8	5.9	1.4	2.5	1.0	0.5	0.2
NTOT CDS	19.3	4.4	6.2	4.7	1.1	2.0	0.8	0.0	0.1
PULP CDS	12.7	3.9	2.9	2.7	1.1	1.2	0.8	0.0	0.1
GRS BDFT	4994.	350.	2444.	1564.	0.	636.	0.	0.	0.
NET BDFT	4307.	246.	2191.	1339.	0.	531.	0.	0.	0.
DOLLARS	811.	23.	629.	30.	2.	124.	2.	0.	0.

Appendix 12. OVERSTORY SUMMARY ORIGINAL STAND (2012) - LIVE TREES ONLY

(Jul 31 2013 - 76-26.sil)

SPECIES >	ALL SP	NRO	RM	BC	WO	SB	SAS	YP	CO	BG
					COMPOSITION -- BA, % OF BA, TREES					
TOT BA	132.7	57.3	43.3	11.3	8.3	5.0	4.0	1.7	1.3	0.3
SPECIES%	100.	43.	33.	9.	6.	4.	3.	1.	1.	0.
# TREES	423.	63.	228.	78.	8.	31.	10.	1.	1.	4.
					QUALITY -- % IN AGS					
SAPS	10.	0.	4.	38.	0.	0.	0.	0.	0.	0.
POLES	51.	83.	52.	50.	100.	0.	0.	0.	0.	0.
SM SAW	78.	86.	77.	67.	71.	0.	0.	67.	67.	0.
MED SAW	73.	73.	100.	50.	75.	0.	0.	100.	100.	0.
LG SAW	62.	50.	0.	0.	100.	0.	0.	0.	0.	0.
ALL SIZE	62.	80.	52.	53.	76.	0.	0.	80.	75.	0.
					DIAMETERS AND AGES -- INCHES, YEARS					
DIAM	12.2	15.2	8.8	10.8	15.5	6.5	9.0	16.0	15.5	4.0
DIAM MER	13.2	15.3	10.0	13.2	15.5	7.8	9.0	16.0	15.5	0.0
QUAD DIA	7.6	13.0	5.9	5.2	14.1	5.5	8.5	15.0	15.3	4.0
YRS MAT	25.	14.	40.	24.	17.	68.	60.	10.	17.	120.
EFCT AGE	68.	76.	50.	66.	103.	52.	60.	80.	103.	0.
					STRUCTURE					
Q FACTOR	1.53	1.18	1.94	1.24	1.01	1.78	0.96	0.00	0.00	0.00
					RELATIVE DENSITY -- %					
REL DEN	92.	33.	34.	8.	8.	4.	3.	1.	1.	0.
AGS RDEN	53.	26.	15.	4.	6.	0.	0.	0.	1.	0.
					VOLUMES AND VALUES - INT 1/4" LOG RULE					
GTOT CDS	34.9	18.1	8.9	2.6	2.7	0.6	1.0	0.5	0.4	0.0
NTOT CDS	27.1	14.5	7.1	2.1	2.1	0.5	0.0	0.4	0.3	0.0
PULP CDS	16.0	7.6	5.3	1.2	1.1	0.5	0.0	0.1	0.2	0.0
GRS BDFT	9328.	5342.	2005.	634.	870.	76.	52.	198.	151.	0.
NET BDFT	7601.	4850.	1154.	511.	757.	23.	0.	175.	130.	0.
DOLLARS	2040.	1542.	53.	197.	234.	1.	0.	10.	3.	0.

Appendix 13. OVERSTORY SUMMARY ORIGINAL STAND (2013) - LIVE TREES ONLY

(Jul 31 2013 - 76-37.sil)

SPECIES >	ALL SP	RM	NRO	CO	BG	SB	WO	EH	BC	SAS
				COMPOSITION -- BA, % OF BA, TREES						
TOT BA	117.5	52.5	23.8	15.0	11.2	10.0	1.2	1.2	1.2	1.2
SPECIES%	100.	45.	20.	13.	10.	9.	1.	1.	1.	1.
# TREES	746.	424.	29.	15.	223.	45.	2.	2.	2.	2.
				QUALITY -- % IN AGS						
SAPS	31.	50.	0.	0.	0.	0.	0.	0.	0.	0.
POLES	51.	60.	100.	67.	0.	14.	100.	100.	0.	0.
SM SAW	69.	64.	85.	40.	0.	0.	0.	0.	0.	0.
MED SAW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
LG SAW	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ALL SIZE	50.	57.	84.	33.	0.	12.	100.	100.	0.	0.
				DIAMETERS AND AGES -- INCHES, YEARS						
DIAM	9.8	8.0	13.5	15.7	4.4	7.2	10.0	10.0	10.0	10.0
DIAM MER	11.2	9.6	13.5	15.7	6.5	7.7	10.0	10.0	10.0	10.0
QUAD DIA	5.4	4.8	12.3	13.4	3.0	6.4	10.0	10.0	10.0	10.0
YRS MAT	37.	42.	23.	16.	77.	69.	53.	53.	40.	53.
EFCT AGE	61.	48.	67.	104.	43.	51.	67.	67.	50.	67.
				STRUCTURE						
Q FACTOR	1.74	1.62	1.05	1.22	5.33	2.04	0.00	0.00	0.00	0.00
				RELATIVE DENSITY -- %						
REL DEN	95.	43.	14.	14.	12.	8.	1.	1.	1.	1.
AGS RDEN	44.	24.	12.	5.	0.	1.	1.	1.	0.	0.
				VOLUMES AND VALUES - INT 1/4" LOG RULE						
GTOT CDS	25.2	9.6	7.2	4.7	0.8	1.6	0.3	0.2	0.3	0.3
NTOT CDS	19.9	7.7	5.8	3.8	0.7	1.3	0.3	0.2	0.3	0.0
PULP CDS	14.6	6.1	3.4	2.4	0.7	1.3	0.3	0.2	0.3	0.0
GRS BDFT	4269.	1710.	1799.	760.	0.	0.	0.	0.	0.	0.
NET BDFT	3195.	923.	1600.	672.	0.	0.	0.	0.	0.	0.
DOLLARS	518.	48.	444.	21.	1.	3.	1.	0.	1.	0.