

Rothrock State Forest

20 15 MANAGEMENT ACTIVITIES

The mission of DCNR Bureau of Forestry is to conserve the long-term health, viability and productivity of the Commonwealth's forest and to conserve native wild plants. One of the ways the bureau carries out this mission is through the [State Forest Resource Management Plan](#) (SFRMP), a document that guides the management of the 2.2 million-acre state forest system. The SFRMP is updated approximately every 5 years and includes an extensive public engagement process. The SFRMP is implemented at the local level by forest district-specific plans that aim to balance the many uses and values of the forest through ecosystem management.

The Bureau of Forestry is committed to considering the views and perspectives of the public and various stakeholders. [Penn's Woods: Sustaining Our Forests](#) defines the strategic vision of the Bureau of Forestry, and states, "Public participation will be an integral part of the management of state forest lands." Public notification and input is solicited in many ways, including public meetings, newsletters, social media, advisory committees and participation in outreach events. The purpose of this Management Activities document is to communicate upcoming forest management activities, projects and events being conducted to implement the SFRMP on Rothrock State Forest. This document will be populated in January to include projects planned for the upcoming year and then revised again in July to reflect any changes for the remaining 6 months of the year.

Districts strive to accommodate local-level interests in planning management activities and making decisions when it is possible to do so. Comments or questions regarding planned or proposed activities are most appropriately directed to the local state forest district initially. Should questions remain following local consultation, please provide them to PAForester@pa.gov. The Forest Resource Planning and Information Division will coordinate with the State Forester's Office to review the situation and provide feedback.

For questions, comments or more information about this plan, please contact:

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RECREATION

- **Musser Gap Trailhead Development** - This project involves the development of the Musser Gap Recreational Trailhead: trail system access and trail connections. The trailhead is located along SR 45 just a few miles east of the village of Pine Grove Mills and about one mile outside the borough limits of State College. The majority of the project involves the improvement and maintenance of existing road and trail corridors. Another essential part of the project is the building of a hiking trail that connects to the Mid-State Trail and other local trails throughout the Rothrock State Forest. The project includes the enhancement of the trail system and loop opportunities within the Musser Gap Tract as well as the establishment of two vistas. Parts of the project have been completed including the installation of two ford stream crossings and one foot bridge. The trail running surface will be improved and resurfaced late spring-early summer 2015 and the remainder of the trail work is anticipated to be completed by fall 2015.
- **Croyle Run Trail** – Due to significant erosion issues associated with the current Croyle Run Trail, this trail will be rerouted and appropriate grade will be implemented in the new trail. This reroute will be built using a mini-excavator and be a cooperative effort between DCNR staff and volunteers.
- **New Laurel Run Trail** – This trail was rerouted in 2011 due to severe erosion issues. In spring 2015, with the use of a mini-excavator, DCNR staff as well as volunteers intend to bench-cut most of this new trail and incorporate Best Management Practices into the trail design.
- **Mid State Trail (MST)** – A section of the MST north of Detweiler Run Road will be rerouted. This section of the MST was an old fall-line trail and severely eroded. The reroute will incorporate side slope building as well as a few switchbacks that will allow for a more gradual climb/descent.
- **Mid State Trail (MST)** – A section of the MST on Short Mountain will be relocated onto the lower section of Quarry Road. This will allow for a safer and easier access to the MST from the Alfarata Station Rails-to-Trails parking area.
- **Standing Stone Trail (SST)** – Trail work will continue on the SST along Stone Mountain south of Greenwood Furnace State Park. This involves general trail maintenance and the relocation of several short sections of trail due to severe rockiness.
- **Brush Ridge Road Trail System** – This ‘old’ trail system, west of Greenwood Furnace State Park, will be further assessed. The complex of trails was constructed in the nineties as a network of cross country ski trails. The character of the trail system does not lend itself to such use. Over the years, the trail system has been subject to heavy equestrian use. Again, some sections of trail are not suitable for equestrian use.
- **Trough Creek Division Trail System** – Trail signs will be installed at the existing trails located throughout the Trough Creek Division. A map of this trail system will be posted and

available to the public.

2015 Organized Events:

January

Frozen Fat Bike Ride (Rothrock Outfitters)

February

MTB50 (Tussey MountainBack 50) Group Runs, "Sno Big Deal"

March

MTB50 Group Runs, "Laurel Run Switchbacker"

April

MTB50 Group Runs, "Tussey Mtn. to WD SP"

May

Greenwood Furnace Trail Challenge

MTB50 Group Runs, "Beidleheimer Sidewinder"

Transylvania EPIC Bike Race (Joint event with Bald Eagle State Forest)

June

Saturday, 6th, Rothrock Challenge Foot Race

Saturday, 13th, Rothrock Trail Mix Bike Race, Happy Valley Biking,

Sunday, 14th, Stoopid 50 Mtn. Bike Event,

TMB50 Group Runs, "Eager Seeger"

July

Wilderness101 Mtn. Bike Event,

August

TMB50 Practice Run – Tussey Mtn. out and back

TMB50 Practice Run-T1 to WD SP(Laurel Run Rd.)

September

MTB50 Practice Run – WDSP to Alan Seeger

TMB50 Practice Run – AS to Kettle (T7)

TMB50 Practice Run – T7 to Penn Roosevelt SP

PSU 4-H Competitive Horse Ride PR (Andrea Kocher)

TMB50 Practice Run – PR SP to Colyer Lake



TMB50 Practice Run -Colyer Lake to Bear Meadows

TMB50 Practice Run – Bear Meadows to Wampler to Tussey Mtn.

October

TMB50 Tussey MountainBack 50 UltraMarathon

TIMBER MANAGEMENT

Timber management will include stands identified in the landscape exam process as high priority for treatment due to high levels of natural regeneration, stand health issues, and prior (ongoing) regeneration projects.

- Turkey Hill Road (Overstory Removal) - Upon completion of the 2nd stage shelterwood harvests in the Turkey Hill Road deer exclosures, natural regeneration stocking levels will be assessed and the final removal harvest marked for the bidding process.
- Treaster Kettle Road (Overstory Removal) - An overstory removal is planned along Treaster Kettle Road in part of the area of a devastating wildfire in 2006. The vast majority of the removal will occur in two adjacent deer enclosure fences. This timber sale was started as a shelterwood in 2007 and now the regeneration is abundant.
- Laurel Run Road (Shelterwood) - A shelterwood treatment is planned for two adjacent deer fences along Laurel Run Road. These fenced areas currently have some small tree seedlings present but not in sufficient numbers to successfully regenerate the stand.
- Long Mountain Trail along Stone Creek Road (Shelterwood) - A shelterwood treatment is planned in the vicinity of Long Mountain Trail where mainly smaller, low quality trees will be removed commercially. This area is also scheduled to have a deer enclosure fence installed in 2015.
- Short Mountain Road - An area within the Quarry Landscape off of Short Mountain road is being surveyed for a future timber sale.
- Tram Road (Overstory Removal) - The Tram road fenced area of 38 acres, within the Camp Barree landscape, was a shelterwood cut that has sufficient regeneration to warrant treatment of invasive species in preparation of an overstory removal harvest.
- Stand analysis will occur in areas of the Slate Ridge Landscape, inventoried in 2013. These areas include a stand south of Stone Creek Road, as well as a bench along the Brush Ridge Trail near Spruce Mountain, where past gypsy moth mortality has compromised the health of the forest canopy.

- A 70 to 100 acre timber sale is planned in the area of Laurel Run Road. The goal will be to begin the process to successfully begin regenerating forested stands, particularly stands with a large component of dying Eastern hemlock.
- Previously marked and sold timber sales that are likely to be active for 2015 could include: Turkey Hill Sale, Broad Mountain Sale (near the Wallace and Alexander Trails), Barrville Road Sale, Brush Ridge Sale (west of Greenwood Furnace State Park), Pine Swamp Road Sale, Bear Meadows Road (at Longberger Path) and the Trough Creek Drive Sale. These sales are either near completion, currently active or are very small in size and could be harvested in a rather short period of time. Completed sales will then have final grading occur to log landings and haul roads, followed by seeding and mulching (stabilizes the disturbed soil and provides a herbaceous habitat component for wildlife).

Shelterwood

The establishment of a new, essentially even-aged, forest stand from the partial removal of the overstory. Each harvest if done in a series is a shelterwood treatment. The essential characteristic is that the new forest stand is being established naturally or artificially before the overstory trees from the original forest stand are removed. The shelterwood method can be used to describe any of a series of harvest treatments that are of the following types:

- 1. A preparatory treatment designed to foster the potential seed producers, with additional trees retained to meet the Bureau's reservation guidelines.*
- 2. A seed treatment aimed at getting the new seedlings established, with additional trees retained to meet the bureau's reservation guidelines.*
- 3. A final harvest in a shelterwood series or the overstory removal with residuals which will release established regeneration from competition with the existing overstory. In the case of established regeneration from natural causes or regeneration fund activities (fences, herbicide, etc.), the one time release harvest is also the final treatment and is termed the **overstory removal harvest**. The residual trees left to meet the bureau's reservation guidelines are the only remnants of the old forest stand not harvested.*

Regeneration projects are implemented to address issues that impede the development of desirable regeneration.

- For 2015, two regeneration projects will be undertaken in the Greenwood Division of the Rothrock State Forest. The first project will be a 149 acre mowing project across the Brush

Ridge Trail near Spruce Mountain. Gypsy moth induced tree mortality has opened the stand, which has resulted in a dense mountain laurel shrub layer. This shrub layer has kept tree seedlings from developing into saplings and forming the next stand. Mowing the shrub layer will hopefully allow the seedlings to sprout vigorously and gain height growth over the slower growing shrubs. The second regeneration project will include the removal of a deer enclosure. The woven wire fence was built in 1999 near the county line along Coopers Gap Road. Natural regeneration has developed through 2 timber harvests and is above the browse line; therefore the decision to remove the fence was made.

- The Brady road deer fence enclosure area of 33 acres within the Caverns landscape was previously treated with mechanical removal of small understory vegetation to promote regeneration. Establishment of desirable regeneration has not been successful to sufficient levels to date. An herbicide treatment is planned to control competing vegetation and to stimulate the establishment of regeneration within this area. The treatment will consist of control of competing hay-scented fern ground cover and removal of understory impeding tree species of blackgum, black birch, and red maple to provide more light and reduction of competition for nutrients.
- Kepler Road Herbicide Treatment - The primary goal of this project is to control competing vegetation by eliminating undesirable trees from the mid and understory. This will allow more sunlight to reach the forest floor and allow desired tree species to become established. The area will then be monitored for the next few years to determine the establishment of regeneration success and ultimately scheduled for a timber harvest when sufficient
- In certain areas along Corner Road, Bear Meadows Road, and Roaring Run we plan to herbicide hay-scented fern. This fern can be a major obstacle when trying to establish desirable tree regeneration on many sites and the most effective method to control it is through the use of selective herbiciding. Once controlled, more sunlight will reach the ground for the benefit of trees seedlings as well as many other herbaceous plants that cannot compete with the high fern levels.
- Three deer enclosure fences are slated for removal in late 2014 or early 2015, two along Treaster Kettle Road and one along Bear Meadows Road. The amount and height of the desirable regeneration within these fences is adequate and protection from deer is no longer necessary.
- Three fences are slated to be installed in late 2014 or early 2015. One fence is being installed along the Long Mountain Trail where the above mentioned shelterwood timber sale will take place. Much of the timber sale will occur inside the fence to protect the seedlings from deer browsing pressure. Also, two fences will be installed along Krise Valley Road. The mountain laurel was mowed in this area in 2001 and since then the deer pressure has been high enough to keep the seedlings from growing out of the reach of the deer.

Other sales could potentially begin in 2015, but forecasting that activity at this time is difficult due to a variety of reasons that may inhibit them coming to fruition. We will periodically update this document throughout the year to better inform our constituents to the Rothrock State Forest.

RESTORATION AND HABITAT PROJECTS

- Kepler Road Tree Planting – A 3-acre open area along Kepler Road will be reforested with a variety of conifer tree seedlings. This area has been pretreated with herbicide to control fern and weed species to allow seedlings to become established. This area has also been treated for several years to control the invasive species mile-a-minute. The area will be planted a part of the statewide seedling planting contract in mid-spring 2015
- Kepler Road Brush Cutting - The primary goal of this project is to control competing and inhibiting woody vegetation by manually cutting the stems of undesirable tree species allowing desirable species to dominate.
- Wildlife openings established in the 1970's-80's located in the Greenwood Division of the Rothrock State Forest will be surveyed for present condition and a decision will be made for continued maintenance, rehabilitation, or retirement. Maintenance on these openings has been discontinued for some time due to changes in staffing. Maintenance will include mowing, tree pruning, and invasive species control treatments to openings deemed worthy. Rehabilitation will look at potential expansion and reestablishment of grassed, shrubs and trees. Over time other potential sites across the state forest will be evaluated to establishment of new openings and habitat types.
- In areas of or near Roaring Run and Musser Gap we are planning to plant a number of conifer trees seedlings in former timber sale and salvage areas. This will add to species diversity and, once established, will take growing space and sunlight away from any number of invasive species competing for a spot on state forest land. Invasive species are a major problem and one method of control is to reduce the opportunity for those species to become established.

ROAD AND BRIDGE PROJECTS

- Spring 2015 – Driving Surface Aggregate (DSA) placement on Laurel Run Road – Starting near Whipple Dam State Park’s Beach Road exit covering approximately 0.7 mile to camp 5C-381.
- Summer 2015 – DSA placement on Laurel Run Road - Starting near camp 5C-381 covering approximately 4 miles to camp 5C-334
- Summer 2015 – Full depth reclamation of pavement on Stone Creek Road – Starting near Crowfield Road intersection covering approximately 2.5 miles to the intersection of Spruce Mountain Road.
- Summer 2015 – Large contracted culvert replacement on Laurel Run Road near camp 5C-009
- Summer 2015 – Large contracted culvert replacement on Thick head Mountain Road near the intersection with Treaster Kettle Road.
- Fall 2015 – Large in-house culvert replacement – Crowfield Road near the intersection with Stone Creek Road
- Fall 2015 – Large in-house culvert replacement Greenlee Road near camp 5C-021
- Fall 2015 – Large in-house culvert replacement PSU Watershed Road

PRESCRIBED FIRE

- Planning for the next prescribed fire(s) will begin with plot establishment in the deer exclosures located off of Conklin Road in the Greenwood Division of the Rothrock State Forest in the spring of 2015. The purpose of the fire(s) includes controlling competing vegetation. More specifically, the fire would control red maple seedlings and allow existing oak seedlings to gain dominance in the stand prior to timber harvesting. The fire would occur early in the growing season, once red maple leaf-out at the earliest being spring of 2016. A Prescribed Burn Plan will be written as time allows in 2015.
- Prescribed fire plots have been established and taken in two deer exclosures near the Underwood Trail. Late 2014 to early winter 2015 a Prescribed Burn Plan will be written for the site. The goal of this fire(s) will be to control competing vegetation, including mtn. laurel, black birch, and red maple while releasing established and competitive sized oak regeneration. The timing of this burn will be spring 2015 once red maple and birch leaf-out.
- Prescribed fire plots will be established and taken in an area of Locke Valley tract that was acquired from Glatfelter Pulpwood Co. The plots will be taken in late spring to early summer of 2015 as time allows. The stand we are considering for a prescribed burn is a former shelterwood harvest that has some established and competitive oak and hickory seedlings present but is being outcompeted by black birch, red maple, and striped maple. The plan is to conduct a spring burn (2016 or 2017) when conditions are right. The Prescribed Burn Plan will be written following completion of the prescribed fire plots.

INSECT, DISEASE, AND INVASIVE PLANT TREATMENT

- Insect and disease monitoring and reporting will continue in 2015 and will focus on the priority list provided by the Division of Forest Pest Management (FPM). Report forms will be forwarded to FPM Area Specialist from the District I&D coordinator for ground truthing and possible control efforts for reported insect and disease problems. Aerial survey flight(s) will be conducted in late June/early July to detect possible problem areas as well.
- The imidacloprid treatment against Hemlock Woolly Adelgid will continue in areas of Alan Seeger, Bear Meadows, and Galbraith Gap. The Bear Meadows project is a multi-year volunteer project. Last year, nearly 50 volunteers arrived to treat the hemlocks in the Bear Meadows Area. Treatments of HWA will continue until an effective control agent is developed and implemented.
- Control efforts for invasive plants will continue in 2015. Larger ongoing projects such as mile-a-minute and Japanese knotweed infestations along Kepler Road typically receive treatment in June/July. These control efforts have been effective in controlling the spread of these plants outside of the treatment area. Weevils have been released in Locke Valley in 2010 and 2014 to combat the large mile-a-minute infestation there. These weevil release sites are surveyed three times per year. New infestations of invasive plants will be treated by District personnel in an effort to prevent large scale problems later. On the forefront of the district's monitoring and surveying is for Japanese Angelica Tree, which has been found and treated on one site near Musser Gap Trail. Surveying for this species takes place when the flowing bodies are present on the tree usually late August to October.

NATURAL GAS AND OIL DEVELOPMENT

- Presently, there are no natural gas and or oil development activities taking place or immediately planned within the Rothrock State Forest.

OPPORTUNITIES FOR PUBLIC ENGAGEMENT

- Recreation Stakeholders Meeting – (Time TBA) This allows recreational clubs and volunteers to meet DCNR staff as well as each other. Gives opportunity for the recreation community to make suggestions and learn about upcoming projects.
- DCNR Conservation Volunteer Training/Work Day – (summer 2015) this involves the opportunity for DCNR volunteers to gather for a day, learn about sustainable trail maintenance, obtain updates on safety aspects of their work and work on a trail project located on the Rothrock State Forest.
- A public tour is planned in the Rothrock in October 2015. Suggested tour topics can be

submitted to the District's email account of on our Facebook page. A "leaf peeper" tour is currently being considered.

- **Be sure to check our Facebook Page for the most up to date information related to the Rothrock State Forest, activities, and events.**

MAJOR ACCOMPLISHMENTS FROM PREVIOUS YEAR

- July 2014 – Maintenance crew installed an 87"x63" culvert on the McClain Drivable Trail.
- August 2015 – Maintenance crew installed an 87"x63" culvert on the Locke Valley Administrative Road.
- August 2015 – Maintenance crew in cooperation with PSU Center for Dirt and Gravel Roads installed culverts and drainage material on Laurel Run road near camp 5C-009.
- May 2014 – Contractor placed 1,927 tons of driving surface aggregate (DSA) on 3,780 feet of Colerain Road
- June 2014 – Contractor placed 3,083 tons of DSA material on 6,500 feet of Coopers Gap Road
- June 2014 – Contractor completed the full depth reclamation of 5,075 feet of Stone Creek Road placing 2,853 tons of DSA material.
- 05-2010BC02 (Short Mountain TS) Completed in September 2013
- 05-2012BC02 (Beidleheimer TS) Started in winter 2013 and completed in summer 2014.
- 05-2011BC01, (Spencer Trail TS) Active and retired in the spring of 2013
- 05-2010BC04, (Trough Creek Co-op TS) Active in the spring/summer and retired in the summer of 2013
- 05-2012BC03, (Brush Ridge II TS) Opened in the summer of 2013 with haul road construction, and harvesting began in early fall/winter.
- 05-2012BC05, (Roaring Run TS), consisted of 91 acres of overstory removal, with 40 acres being within a fence, this sale was completed in June of 2013.
- 05-2013BC01, (Roaring Run 2 TS) was included 38 acres of overstory removal within a fence and 20 acres of shelterwood outside the fence; this sale was completed in May 2014.
- 05-2013BC02, (Bear Meadows Removal TS), is 142 acres of overstory removal within 5 deer fences; this sale is still active and should be completed this winter.
- 05-2013DF01, (Spruce Mtn. Permit) is small salvage sale also completed winter 2013/2014 which comprised 23 total acres.
- 05-2014BC01, (Laurel Run Removal TS) was the first sale of 2014, but it was 18 acres of overstory removal within a deer fence and was completed in the spring of 2014.
- Regeneration Project of a herbicide cut/stump treatment across from the Kepler road/Rt. 26 intersection-focused on treating competing vegetation was completed in May 2013.
- Competing vegetation spray project off of Laurel Run Road. This project was contract foliar

treatment completed in August 2014.

- Chute Trail Rock Armoring (Lonberger Path): This project involved the relocation and Appalachian “rock” armoring of the Chute Trail (Lonberger Path). This trailhead originates along Laurel Run Road near the Galbraith Gap Trailhead parking area. The trail extends south and eventually joins Three Bridges Trail and Spruce Gap Trail. This trail is designated as a shared-use trail and is an important trail that links forest users/visitors to the majority of the trail system in the area. This project was proposed and built by Rothrock District Staff, Nittany Mountain Biking Association, and Volunteers from local recreation clubs.
- Lorence Trail: This trail is located near Greenwood Furnace State Park (GWF SP). It was proposed and built by volunteers and members of the Standing Stone Trail Club. It connects Monsell Trail to Turkey Trail and enables an opportunity for a loop hike from GWF SP by using the Standing Stone Trail.
- Dutch Alvin Trail: Located on of Coopers Gap Road, this trail is designated as Shared-Use and allows users to connect to the existing trail system around the Coopers Gap Area as well as opportunity for trail loops. This project was proposed and built by volunteers of Friend of Coopers Gap.
- Many outreach and educational programs were completed within Centre and Huntingdon Counties by District Staff. These include the Huntingdon Fair, Ag Progress Days, the Grange Fair, several ATV Safety Programs, Tree City USA and Arbor Day programs.
- Many Forest Fire Prevention and other educational programs were completed by our Forest Fire Specialist Supervisor across our service area. Support of Staff and the District’s Forest Fire Wardens (volunteers) are critical to this programming.
- Under the Department’s Mutual Aid Agreement with the US Forest Service, two staff members provided wildfire suppression assistance to the state of California and our Forest Fire Specialist Supervisor assisted Washington state as a critical member of the Northern Rockies Type I Incident Management Team.
- 280 acres of forestland have been added to the Rothrock State Forest.

RESEARCH

- Researchers from Penn State University are conducting a multi-year project called the Deer-Forest Study on the Rothrock, Bald Eagle, and Susquehannock State Forests. This study looks at better understanding the role of deer in context of the many challenges that PA forests face including invasive species, insect outbreaks, soil acidity, tree diseases, and even deer themselves. The goal of this study is to help forest and wildlife managers better manage deer and the forests. This is a cooperative project with researchers from PSU, US Geologic Survey, PA Game Commission, and DCNR Bureau of Forestry. This study area is 25-40 square miles in size and is in the north-eastern most part of the Rothrock State Forest.

- Researchers from Penn State University are conducting a “Shale Hills Study” in which they are looking at water flow. The two sites that have activity are along Harry’s Valley Rd on Tussey Mtn. and near the Jo Hayes Vista on Tussey Mtn.
- Researchers from Penn State University are conducting research on prescribed fire effects as they relate to timber rattlesnakes, vernal pools, and Indiana bats. This research will be conducted on any number of sites at and near planned prescribed burns in the district. This is a cooperative research project with PSU, PA Fish and Boat, and Bureau of Forestry.