

BALD EAGLE STATE FOREST DISTRICT

2023 ACTIVITY PLAN

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.

One of the policies in the bureau's strategic plan ([Penn's Woods: Sustaining Our Forests](#)) includes "Public participation will be an integral part of the management of state forest lands." The purpose of this Activity Plan is to communicate to the public about upcoming management activities, projects, and events that will be conducted to implement the SFRMP on Bald Eagle State Forest. This document will be revised at the start and middle of each calendar year to provide enough time for public review, questions, and feedback. The bureau is committed to considering the views and perspectives of the public and stakeholders and strives to accommodate public interests in planning management activities and decision making. We encourage comments or questions regarding planned or proposed activities be directed to the state forest district conducting the activity.

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

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RECREATION

All recreational events with current activity agreements are expected to take place in 2023. Exact dates are subject to change.

Organized Events

- Wildfire Ranch Therapeutic Equine Rides – year-round guided rides (100 participants throughout the year).
- Nittany Mountain Guided Equine Tours – year-round guided rides (200 participants throughout the year).
- Frozen Snot – February 4, 2023 (300 participants).
- Bald Eagle Gravel Grinder – April 16, 2023 (300 participants).
- Relay for Life Horseback Ride – last weekend in April (50 participants).
- Eastern Competitive Horseback Ride – May 13-14, 2023, horseback ride (75 riders).
- PA Wilds Adventure Series Motorcycle Ride - mid-May, hundred plus mile Adventure Series motorcycle ride across multiple forest districts (100 participants).
- Seven Mountains Raven Enduro Mountain Bike Ride – May 20-21, 2023 (200 participants).
- Transylvania EPIC Mountain Bike Ride – week before Memorial Day (May 23-27, 2023) (Rothrock State Forest and Poe Paddy State Park involved) (250 participants).
- Circle M Horseback Ride – Memorial Day (May 26-29, 2023) and Labor Day (September 1-4, 2023) (100 riders).
- Durty Dabber's Great Adventure Dual Sport – event in Bald Eagle (northern area of district) and Tiadaghton State Forests and on Sunday in Sproul State Forest. June 3-4, 2023 (550 riders).
- The Wilderness 101 Mountain Bike Ride – July 22, 2023 (400 participants).
- Soggy Bottom Motofest – July 27-30, 2023, motorcycle ride - 120 riders across multiple Forest Districts.

- PSU Orion Wilderness Orientation – mid-August (50 participants).
- Transylvania Gavel Epic – includes Rothrock and Moshannon State Forests - August 17-20, 2023 (350 participants).
- Centred Outdoors Guided Hike – August 27 and 31, 2023, Poe Paddy Tunnel guided hikes and September 3, 2023, James Cleveland Trail guided hike (15-20 participants each day).
- PA Trail Riders Association's Seven Mountains Dual Sport Ride – September 9, 2023 (250 riders) (Poe Valley and Poe Paddy State Parks included).
- Dam Half Marathon – includes R.B. Winter State Park, September 17, 2023 (450 participants).
- Boulder Beast – September 23, 2023 (600 participants).
- Raven Trail Half Marathon – includes Poe Valley State Park. October 1, 2023 (150 participants).
- unPAved Gravel Bike Ride – October 8, 2023 (1000 riders).
- Penn State 4-H Horseback Ride – beginning of October, horseback ride (75 riders).
- Iron Cross Race – includes Tiadaghton State Forest. October 15, 2023 (600 mountain bike riders).

Recreational events with formal agreements: on average, 20 events and special activities that are small in nature are completed with a Letter of Authorization from the District Forester.

TIMBER MANAGEMENT

Marked and sold, potentially active

- Kitten Ranch Sale - This 403-acre sale is located along Rag Valley Road, Lamar Township, Clinton County. The treatments will involve 15 acres of overstory removal, 13 acres of two-age, and 374 acres of shelterwood. The overstory removal and two-age treatments are within an existing deer enclosure, which was previously treated with a broadcast herbicide treatment. Once adequate regeneration is present

within the fence and the seedlings are above the deer browse, the fence will be removed. After the sale is cut, conifer planting and additional projects to enhance regeneration will likely occur within the shelterwood areas.

- Get Out the Way Sale - This 39-acre sale is located on Sand Mountain Road next to the Seven Mountains Parking area, Potter Township, Centre County. The treatments will involve a 20-acre overstory removal and a 7-acre two-age buffer treatment within an existing woven wire deer exclosure fence. There is another 7-acre overstory removal and a 5-acre selection buffer cut outside the fence to stimulate growth of existing regeneration. A second prescribed burn was conducted in the spring of 2021 within the fence to reduce competing vegetation and to release existing oak regeneration. Once the seedlings are above the browse line, the fence will be removed. A 7-acre overstory section outside the fence is planned to be planted with conifer trees once the sale is complete.
- Spokes on a Wheel Sale - This 82-acre sale is located on Spruce Run Road, White Deer Township, Union County. The treatments will involve a 77-acre overstory removal and a 5-acre two-age buffer cut within an existing woven wire deer exclosure fence. A prescribed burn was conducted in the spring of 2018 within the fence to reduce competing vegetation and to release existing oak regeneration. Once the seedlings are above the deer browse, the fence will be removed.
- Blue Slash Sale - This 59-acre sale is located off State Route 45 on both sides of Stitzer Gap Trail, Hartley Township, Union County. The treatment is an overstory removal mostly within two woven wire deer exclosure fences. Once the seedlings are above the browse line, the fences will be removed.
- Devils Hole Sale - This 60-acre sale is located along Siglerville/Millheim Pike, Armagh Township, Mifflin County. The treatment is an overstory removal and two-age buffer cut within a woven wire deer exclosure fence. This stand has been stressed from multiple *Lymantria dispar* (spongy moth) defoliations over the years with pockets of standing dead trees throughout. After the sale is cut, conifers will be planted to add to diversity and reclaim old skid trails and roads. Once adequate regeneration is present within the fence and the seedlings are above the deer browse, the fence will be removed.

- RBW Sale - This 72-acre sale is located along State Route 192, west of RB Winter State Park, Miles Township, Centre County. The entire sale is a two-age treatment. The area received basal/cut stump herbicide treatment and mowing of thick laurel as regeneration treatment to encourage new seedling establishment. After the sale is cut, conifers will be planted to diversify regeneration.
- Outside the Box Sale - This 95-acre sale is located off Blue Ball Road in Greens Valley, Walker Township, Centre County. The entire sale will be an overstory removal treatment within two existing deer exclosures. A second prescribed burn was conducted in the spring of 2021 within both fences to reduce competing vegetation and to release existing oak regeneration. Once the seedlings are above the browse line, both fences will be removed.
- Young Forest Sale, Shade Mountain Grouse Habitat – This 286-acre sale is located on the south side Shade Mountain Road, West Perry Township, Snyder County. The sale is proposed to treat 218-acre with a clearcut and 68-acres with two-age buffer cut. Four large landings/safety zones have been created for future timber sale activity and to support multiple prescribed burns planned in the future. These openings will be planted with grasses and forbs to support grouse populations when not in use. The long-term goal is to promote pitch pine/scrub oak habitat and young mixed forest to encourage and sustain higher elevation grouse populations.
- Stuck on the Fence Revisited Sale - This 73-acre sale is in Greene Township, Clinton County. The entire sale is proposed to be treated with an overstory removal within two separate woven wire deer exclosures known as the Cranberry Fences near the Cranberry Bog.
- Paradigm Shift Sale - This 71-acre sale is in Greene Township, Clinton County, off Zimmerman Road. The entire sale is proposed to be treated with a shelterwood cut to encourage the establishment and promotion of natural regeneration.
- Bottom of the Barrel Salvage Sale – This 38-acre sale is in Greene Township, Clinton County, along Whiskey Still Road (State Forest Administrative Road). The entire sale is proposed to be treated as an overstory salvage removal. Over the last few years this area was heavily impacted by *Lymantria dispar* (spongy moth) infestations during the spring growing seasons and other environmental stressors. The area is

expected to be impacted by more infestations of spongy moth again this spring. Many of the trees within the sale are dead and will be harvested.

- Hidden Springs Sale - This 733-acre sale is located off Pine Ridge and High-Top Drivable Trails from Swift Run Road in Spring and West Beaver Townships, Snyder County. The sale is proposed to treat 228 acres with an overstory removal, 408 acres with a clearcut, and 85 acres with a shelterwood cut to encourage the establishment and promotion of natural regeneration.

Proposed Sales

- The Incredible Journey Sale - This 247-acre sale is in Miles Township, Centre County along Garden Hollow Road. The entire sale will be a two-age removal harvest. The timber sale area is a poor growing site dominated by mixed oak and red maple. There are large canopy gaps from historic *Lymantria dispar* (spongy moth) infestations and other environmental stressors, which are filling with red maple, sweet birch and black gum. There is a pocket of pure pitch pine in the western part of the sale. The stand was heavily defoliated in the spring of 2022 by Spongy moth and expected to occur again in 2023. After the sale, prescribed fires are planned to enhance the mixed oak and pitch pine communities for the benefit of wildlife habitat.
- Bear Fly Overstory Salvage Sale - This 120-acre sale is in White Deer Township, Union County. The sale area is a mixed oak site within a woven wire deer fence behind the gated administrative Houck ROW road. Over the last few years, the area was impacted by large infestations of *Lymantria dispar* (spongy moth) during the spring growing season. Along with other recent environmental stressors such as seasonal drought, a majority of the dominant trees have died.
- Dropstart Overstory Salvage Sale - This 40-acre sale is located in Lewis Twp, Union County off White Deer Creek Road. The sale area is a mixed oak site with most of the species being white oak. Over the last few years, the area was impacted by large infestations of *Lymantria dispar* (spongy moth) during the spring growing season. Along with other recent environmental stressors such as seasonal drought, a majority of the dominant trees have died.

- Deer Pen Sale - This 70-acre overstory sale is located southwest of McClure in West Beaver Township, Snyder County. Most of the sale is within a woven wire deer fence. Access into the sale is across private land by way of existing administrated right-of-way.
- Tar Gap Sale, Shade Mountain Grouse Habitat – This 300-acre sale is located on the south side Shade Mountain Road, West Perry Township, Snyder County. The sale will propose to treat the site with a clearcut and two-age buffer cut. Multiple prescribed burns will be planned in the future. The long-term goal is to promote pitch pine/scrub oak habitat and young mixed forest to encourage and sustain higher elevation grouse populations.
- Last Word Sale - This 95-acre sale is located on Deep Hollow Road (state forest administrative road) in Hartley Township, Union County. The entire sale is proposed to be treated with an overstory removal within three separate woven wire deer exclosures known as the Lindale fences.
- Weikert Hill Climb Sale - This 160-acre sale is located off Weikert Run Road, Hartley Township, Union County. The site is a mixed oak stand which is proposed to receive a mix of treatment cuts. An overstory removal will be done within an existing woven wire deer fence and a shelterwood and a two-age treatment cuts outside the fence.
- Leave It Alone Salvage – This 117-acre sale is in Walker Township, Centre County, along Greens Valley Road. Two consecutive years of *Lymantria dispar* (spongy moth) defoliation has caused significant overstory tree mortality. It is planned that the entire area will be treated with an overstory removal harvest. Part of the area will be planted with conifer after the harvest.
- The Raging Tech Salvage – This 176-acre sale is in Miles Township, Centre County and Greene Township Clinton County, along Schwenks Gap Road. Two consecutive years of *Lymantria dispar* (spongy moth) defoliation has caused significant overstory tree mortality. It is planned that the entire area will be treated with a two-age removal harvest. The entire area will be planted with conifer after the harvest.

Regeneration Projects

Most regeneration projects in the Bald Eagle State Forest are designed to reduce competition from other species to create or improve conditions for oak and other desirable species to regenerate and grow. In 2023, we anticipate the following projects to be started or completed:

- Broadcast Spray Projects - seven projects for a total of 276 acres are proposed. The Cooper Mill project is to treat 26 acres in Lewis Township, Union County. The Tea-Springs Trail project is to treat 20 acres in Greene Township, Clinton County. The Top Mountain Trail project is to treat 50 acres. Penn's Creek Valley Trail project is to treat 78 acres in Hartley Township, Union County. The Second Mountain III project is to treat 79 acres in Penn Township, Centre County. The Hiding Spot project is to treat 14 acres in Haines Township, Centre County. The North Winklebleck project is to treat 9 acres in Haines Township, Centre County.
- Basal Bark/Cut Stump Herbicide Treatments - The purpose of these treatments is to reduce the amount of competition from low value, overtopping species, to encourage oak and other desirable species of regeneration. In addition, these treatments allow acorns to accumulate, grow and compete. Only one project for 190 acres is proposed off Sand Mountain road in Gregg Township, Centre County this season.
- Construction Deer Exclosure Fencing - Erected either prior to or after timber sales in areas where white-tailed deer herbivory will significantly reduce the amount of advance regeneration in the area. Two fences are proposed to be built in 2023. The Lean-To fence will protect 105 acres of forest off Hoofnagle Road in Harley Township, Union County. The Old Camp Road fence will protect 70 acres of forest located between Strongs Mountain road and Treaster Valley road in Armagh Township, Mifflin County.
- Dismantle Existing Deer Exclosure Fencing - Four fences are proposed to be removed in 2023: Lingle Stream East, White Deer West, Lick Run East and West fences.
- Tree Planting - Two tree planting projects are planned to supplement or enhance natural regeneration already occurring. 15,000 seedlings are scheduled to be planted in April 2023. The Little Mountain planting is scheduled to put 5,000 conifer seedlings on 9 acres off Mile Run Road in West Buffalo Township, Union County. The Black Rattler East planting is scheduled to put 15,000 white pine seedlings on 23 acres off Hunter Road in Spring Township, Snyder County.

ROAD AND BRIDGE PROJECTS

- Bridge replacements –
 - Sheesley Run Road over Sheesley Run, Hartley Township, Union County
 - Timber Road over UNT to Swift Run, Adams Township, Snyder County
 - Buffalo Flat Road over Buffalo Creek, Lewis Township, Union County
 - White Mtn. Road over Penns Creek bridge repair, Hartley Township, Union County
 - Bear Run Road over Bear Creek, Hartley Township, Union County

ROAD PROJECTS

- Swift Run Road - resurfacing 2,200 tons of DSA (driving surface aggregate) to approximately 1.3 miles of Swift Run Road starting at Pine Ridge Drivable Trail and traveling west to Locust Ridge Road.
- Spruce Run Road - resurfacing 4,500 tons of DSA to approximately 2.5 miles of Spruce Run Road starting at Cooper Mill Road intersection and traveling east.
- Jones Mountain Road - resurfacing 7,500 tons of DSA to approximately 3.7 miles of Jones Mountain Road starting from SR 192.
- Sand Mountain Road – asphalt paving and drainage work on 1-mile of Sand Mountain Road (Centre County). The paving will start at the intersection of SR 322 and travel 1-mile to the state forest boundary, just past Seven Mountains Scout Camp.

PREScribed FIRES

Snake Bucket Prescribed Burn Units 2 & 3 - approximately 138 acres are planned to be treated with a controlled burn off Sand Mountain Road this spring. This area is an ongoing restoration project to promote and encourage scrub oak and pitch pine stands.

INSECT, DISEASE, AND INVASIVE PLANT TREATMENTS

- District personnel will identify and treat invasive species giving priority to those areas located within and adjoining timber sales to minimize the spread because of disturbance.
- Plans are in place to treat numerous invasive plant species at multiple locations throughout the district through grant monies secured through the Bureau of Forestry's Ecological Services Section. Contracted applicators will focus on high priority locations and species.
- Ongoing monitoring by the Bureau's Division of Forest Health and district personnel of large tracts of forested land defoliated by *Lymantria dispar* (spongy moth) in the spring of 2021 and 2022. In the spring of 2023, an estimate of 15,000 acres of timber will be sprayed by aerial application to minimize tree mortality from the expected spongy moth outbreak. Only predesignated areas can be treated because the outbreak will be too large to treat every forested area.

OPPORTUNITIES FOR PUBLIC ENGAGEMENT

- Information is exchanged with the public through attendance at different events and fairs throughout the year. This includes the Beaver Fair and West End Fair, county level Envirothon, FFA testing, outdoor education programs for elementary school students, Forestry Job Shadow Day for local high school students, Woodland Owner Association events, Arbor Day ceremonies. In addition, the district's service forester and recreation forester work daily to educate the public regarding Bureau of Forestry goals, priorities, and regulations while listening to their concerns.
- Numerous volunteers are engaged in activities such as the maintenance, improvement, or relocation of recreational trails, along with rehabilitation and improvement of state forest picnic areas. This work may be done by individuals, clubs, or through groups such as the Boy Scouts (Eagle Scouts).
- Notification regarding district issues is accomplished through the district's web page, the district's Facebook page, press releases, and letters directly to concerned parties.

SPECIAL PROJECTS

- Installation of metal siding and downspout replacements of the lower equipment garage building at the District Office complex.
- Installation of solar panels and a diesel generator at the District Office complex.

RESEARCH

- The district continues to cooperate with Penn State University, the PA Game Commission and USGS on the deer forest study in Snyder and Mifflin Counties within DMAP area 2108. Currently, PSU will be studying a basal herbicide site along Hunter Road, and a mowing and second basal herbicide site along Hoofnagle Road. The purpose is to compare with similar sites in the Rothrock State Forest and determine what effects various regeneration enhancement treatments have considering reduced herbivory by White-tailed deer.
- A long-term study, *Oak Forest Regeneration Study in Pennsylvania (ORSPA)*, has been ongoing in the forest since 1996. This Penn State University, Department of Ecosystem Science and Management, study includes 55 formerly oak-dominated stands, all of which were measured before regeneration treatments were conducted. The stands are presently at various stages in the regeneration process and have been periodically remeasured. The study has provided detailed information on pre-harvest oak seedling populations, the short-term development of oak seedling and stump sprouts, and understory conditions at the time of harvest. The study has also provided information on the effects of silvicultural treatments that was central to the development of the model-based guidelines for regenerating oaks in the central Appalachians under even-aged silvicultural systems. This study will continue to provide new information as stands are continuously monitored. The emerging information will be used to test and refine the guidelines.
- Pennsylvania Cooperative Fish and Wildlife Research Unit, Penn State University, collected soil and common plant samples *in conjunction with the current Deer-Forest Study* (noted above). This information will assist in studying the use of the forest floor indicators as predictor of site fertility for a variety of tree species. The information will also investigate linkages between soil fertility and white-tailed deer health. The study ended on December 31, 2021.

- The Pennsylvania State University's Center for Private Forests has established permanent 1/10-acre plots within the Forest Demonstration Area. These will be used to teach landowners, interested members of the public, and others in learning how to measure plots for sampling forest density, regeneration, and to monitor change and growth over time.
- The Mid-Atlantic Center for Herpetology and Conservation amphibian and reptile survey was given approval to commence in March 2017. This data will update the current information in PARS and PNDI databases.
- Bucknell University's former Civil and Environmental Engineering Department installed a gaging station on White Deer Creek in 1980 to predict the storm-induced sediment yield from highway construction. The station was abandoned in the late-1990's. Bucknell's Watershed Sciences and Engineering Program refurbished the gaging station in 2018 and began collecting 15-minute readings of air temperature, humidity, wind speed/direction, precipitation, water depth, pH, temperature total dissolved solids, and turbidity. The long-term study objective will *Monitor Changes in the Hydrology and Water Quality of White Deer Creek* and look for diurnal, seasonal, and annual, variations in weather, discharge, and water quality in the forested headwater region of the watershed.
- Dr. Charles Cole, Penn State University's College of Arts and Architecture, approached both Parks and Forestry in June 2021 requesting to revive a long-term study with the reassessment of wetland hydrology and plant community composition that he initiated with Dr. Robert Brooks, College of Agriculture, in 1994. The study has been dormant since 2011.
- Influence of lithology on soils and forests around central PA – Penn State University's project requires the collection of rock samples from exposed rock outcrops using a rock hammer. The collected rocks will be taken from the exposed face of the outcrop to the soils lab at Penn State to further break down the rock and collect both weathered and unweathered samples of the target lithology. The rock samples will be ground to a powder to test for mineralogy, using X ray diffraction scanning, and to test for elemental composition, using X Ray fluorescence. Furthermore, soil samples will be collected from undisturbed sites representing residuum soils formed from the in-situ weathering of the rock formations being sampled. These sites will most probably be on terraces or on top of ridges where we will make sure that we have no addition of rock or soil material from upslope. The soils collected will be tested for physical and chemical properties to see if the soils formed on top of different rock lithologies have identifiable differences between them that might themselves condition the composition and dynamics of forest communities at Bald Eagle and Rothrock. Soils would likely come from representative areas of my sampling population, and soil sampling would not occur everywhere rocks are sampled. Penn

State University is studying the effects of fire, deer pressure and plant genetic diversity on the management of early successional habitats, with a focus on blue lupine and its pollinators. This project is to be finalized in the fall of 2023.

- Dr. Jill Hamilton, Penn State University, will establish ex-situ sites for conservation seed collections and development of pre-breeding resources for ash. Project time frame is 2-5 years.
- PA Game Commission's Patricia Barber will monitor northern goshawk breeding range and productivity in Pennsylvania using automated recording units (ARU) to monitor vocal activity of northern goshawks during the early portion of the nesting season, March, and April. ARUs will be deployed for approximately two weeks in historic and appropriate northern goshawk habitat to record call. One week in early March and if no detections a second week in late March. Any goshawk detections will be followed up with nest searching and monitoring to better understand and document the current range and distribution of territories in Pennsylvania.

MAJOR ACCOMPLISHMENTS FROM PREVIOUS YEAR

Large Infrastructure Enhancements – 2022

- Bridge replacements – replaced the bridge structure at Cherry Run Road over Bear Run.
- Hunter Road - resurfaced approximately 7,500 tons of DSA approximately 4 miles of Hunter Road starting at Hoofnagle Road to Bear Gap State Forest Picnic Area.
- Nittany Ridge Road - resurfaced approximately 3,900 tons of DSA to approximately two miles of Nittany Ridge Road.
- Trail Enhancements – cleared and re-blazed five miles of district trails.
- Footbridge Replacements – added a footbridge at Green Gap and Hemlock Trails.