

Tiadaghton State Forest

2019 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 district-specific resource management plans that aim to balance many uses and values of the forest, while maintaining ecosystem health and the wild character of the forest.

The purpose of this Management Activities document is to communicate to the public about upcoming management activities, projects and events that will be conducted to implement the SFRMP on Tiadaghton State Forest. For questions, comments or more information about this plan, please contact:

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RECREATION 2019

A. Recreation Projects

- **Replace Bridge over Little Morris Run on the Black Forest Trail** - The existing bridge over Little Morris Run, a cable and plank bridge, is rotting and one end of the bridge is secured to a white pine tree that has died in the past year. A new bridge will be constructed that meets the preapproved engineering specifications for foot travel only bridges.
- **Removal of Culvert Pipes and Construct Bridges over Ott Fork on the Ott Fork Trail** - Ott Fork currently has three wide spans over Ott Fork that make the stream nearly impossible to traverse during high water levels. New bridges will be



constructed that meets the preapproved engineering specifications for foot travel only bridges. This project will be timed with the removal of old culvert pipes to improve wild trout habitat in the stream.

- **Rebuild Bridge over Dam Run on the Mid State Trail** - The existing bridge over Dam Run, a foot travel only bridge, is rotting. A new bridge will be constructed with the assistance of the Mid-State Trail Association that meets the preapproved engineering specifications for foot travel only bridges.
- **Camp Kline Kiosk** - A new interpretive panel has been designed and will be installed along the Pine Creek Rail Trail to inform the public and passersby of the historic Boy Scout camp adjacent to the highly used bicycle trail.
- **Designate Campsites Throughout Forest District** - In order utilize the new online camping permit system, existing campsites will be mapped, and pertinent information will be incorporated into FIMS, DCNR's geographic information system. Some campsites will receive upgrades in the form of new picnic tables, fire rings, and site numbers.
- **Ski Trail Maps** – New ski trail maps will be made for the district's nine designated ski trails. These maps will either be completed by the recreation forester, or with the assistance of the cartography section.
- **Central Mountains Shared Use Trail Map** – The CMSUT map needs updated to reflect new trails and abandoned trails. Trails will be documented using GPS as soon as possible to advance the map into publication.
- **Vista Work** – numerous vistas along district roads and trails will be cleared to improve recreational viewing and for field observation during wildfires.

B. Trail Work

- **Haneyville ATV Trail** – At least one section of the ATV trail will be rehabilitated to prevent further erosion and sedimentation problems. The tentative plan is to improve the section named Stitzer's Well. This work will require regrading portions of the trail and applying aggregate to prevent further deepening of mud holes. Additional work will include adding culvert pipes and headwalls along the Button Road. Ditch maintenance will likely be completed at that time. Additional work on the trail will include adding reassurance blazes, Class I and Class II signs, and clearing the trail at least three times of down trees on the trail corridors.



- **Black Forest Trail** – The 42-mile loop will be cleared at least twice during the year. Additional work will be conducted by volunteers and DCNR personnel to clear encroaching vegetation and to rehabilitate eroded tread surfaces. KTA will be working on the trail June 6-9 under the supervision of the recreation forester. Portions of the trail will be reblazed. Substantial work is needed to repair trail that was completely eroded due to heavy rains in the summer of 2018.
- **Golden Eagle Trail** – The 9.2-mile trail will be cleared at least three times throughout the year. Additional work will also include maintaining vistas and replacing trail signs. KTA will be working on the trail June 27-30 under the supervision of the recreation forester. Portions of the trail will be reblazed. A significant amount of tread surface will be repaired by increasing the width and slope of the tread surface.
- **Bob Webber Trail** – This trail will be cleared of trees multiple times. Huckleberry and mountain laurel will be mowed back near the top of the trail.
- **Mid-State Trail**- Every summer the Mid-State Trail Association spends one weekend improving the trail. Additional work will involve digging-out areas where the trail has eroded, and the tread surface is now non-existent. Sections of the trail will be mowed with a DR Mower or brushed back with weed whackers from Game Lands 75 to Big Springs Road, and from Sand Spring Road to Mohn Mill Road.
- **Sentiero Di Shay Ski Trail**- DCNR staff will mow and clear approximately 13 miles of this trail corridor as routine maintenance. Bridges will be constructed where culvert pipes have washed out along historic railroad grades.
- **Francis Kennedy Ski Trail** - DCNR staff will mow and clear approximately six miles of this trail corridor as routine maintenance. The tread surface will be dug on portions of the eastern portion of the loop.
- **Pine Bog Ski Trail** - DCNR staff will mow and clear approximately two miles of this trail corridor as routine maintenance.
- **George Will Ski Trail** - DCNR staff will mow and clear approximately six miles of this trail corridor as routine maintenance.
- **Ruth Will Ski Trail** - DCNR staff will mow and clear approximately three miles of this trail corridor as routine maintenance.
- **Baldwin Point Ski Trail** - DCNR staff will mow and clear approximately three



miles of this trail corridor as routine maintenance.

- **Pitch Pine Loop Ski Trail** - DCNR staff will mow and clear approximately three miles of this trail corridor as routine maintenance.
- **Bear Claw Ski Trail** - DCNR maintenance staff will mow and clear approximately four miles of this trail corridor as routine maintenance. This trail needs reblazed, especially along Sand Springs Rd.
- **Broken Tip Ski Trail** - DCNR maintenance staff will mow and clear approximately three and a half miles of this trail corridor as routine maintenance. Reblaze trail.
- **Switchback/Tower Trail** – this trail connecting Skyline Drive to the Broken Tip Trail should be blazed for shared use.
- **Middle Hill Trail** – DCNR staff brush back mountain laurel and other encroaching vegetation, and plant new signs for the trail.
- **Bull Run Quarry/Log Slide Loop**-A portion of trail will be constructed to connect two existing trails at one of the district’s outstanding vistas (Bull Run Spur 1), creating a scenic loop trail from the Tiadaghton Resource Management Center.
- **Quarry Mountain/Dragon’s Back Trail** – This trail will be cleared from PA414 to the Golden Eagle Trail. A new trail sign will be placed where it intersects the Golden Eagle Trail.
- **Naval Run Trail** - This five-mile trail will be cleared of down trees, and portions of the trail will need to be brushed back.
- **Coudersport Pike Trail** – The snowmobile Trail/shared use trail will be mowed by the Jersey Mills and Waterville Maintenance Division to remove woody vegetation and thick grass growing the trail.
- **Gleason Trail** – The Gleason Trail will be cleared of downed trees.
- **Old Wagon Road** – This trail will be cleared and mowed by volunteers and DCNR staff.
- **Pesto Trail**– This will be cleared of trees and weed whacked by volunteers to its intersection with the Mid State Trail.

- **Panther Run Trail** – This trail will be cleared of blowdowns, parts of it will be weed whacked, and trees were pruned back along its corridor.
- **Algerine Trail** – This trail will be cleared of blowdowns and weed whacked by DCNR and volunteers. Trail blazes will be painted yellow.
- **Cut Off Trail** – This trail will be cleared of blowdowns and DCNR staff will cut back encroaching huckleberry, mountain laurel, black birch, etc.
- **Plantation Trail** – This trail will be cleared of blowdowns from route 44 to the Haneyville ATV Trail.
- **Jack Martin Trail** – This trail will be cleared from route 414 to the Haneyville ATV Trail. The bottom will be weed whacked where tall grass and other herbaceous plants grow tall and obscure the view of PA414.
- **Brown’s Run Trail** – This trail will be cleared of trees from PA44 down to PA414.
- **Ott Fork Trail** – The Ott Fork Trail will be cleared of downed trees and trees will be pruned back along its corridor.
- **Pine Hollow Trail** – This trail will be cleared of blowdowns and mowed from Middle Hill Road to the Ott Fork Trail.
- **Pine/Riffle Trail** – These trails will be cleared of downed trees. A new sign will be placed where Riffle Run intersects with the Pine Trail.
- **Half Dome** – This extremely steep trail will be cleared of downed trees.
- **Camp Ridge Trail** – This trail will be re-established/cleared following logging over the winter months.
- **Callahan Trail** – This trail will be cleared of blowdowns. A new sign will be placed where it intersects with the Pine Trail.
- **Houselander Trail** – A large portion of the trail will be designated as shared use and will be cleared by volunteers and DCNR staff.
- **Torbert Trail** - This trail will be cleared of blowdowns. Approximately one and a half miles of this trail will be mowed near Okome Rd.



- **Tiadaghton Trail** – DCNR maintenance staff and volunteers will mow, weed whack, and clear approximately 10 miles of this trail corridor as routine maintenance.
- **Shared Use Trail on Chestnut Ridge** – A section of shared use trail along Chestnut Ridge that was abandoned will be re-established by cutting brush and reblazing the trail.
- **Stone Cutter Trail** – The section of the Stone Cutter Trail will be re-established in Bonnell Run. This work will be assigned to the PA Outdoor Corps of the Jersey Shore Outdoor Club if possible.
- **Sam Carson Trail** – This trail is badly overgrown and the sign at the trailhead was stolen. A new sign for the trail will be made and brush will be cut back to re-establish the trail.
- **Gas Line Trail** – this trail off Naval Run Rd is badly overgrown with sweet birch. The birch will be pulled or cut to re-establish the trail corridor.
- **English Flat Trail** – This abandoned trail will be re-established off Sinking Springs Rd and new signs will mark the trailhead.
- **Little Morris Trail** – The Little Morris Trail will be mowed during cold weather months to improve this section of shared use trail.
- **Dugan Log Trail** – This trail will be blazed to assist users traversing the log roads in this area.
- **Catamount and Turkey Vulture Trails** – These trails will be blazed and signed for users
- **Central Mountains Shared Use Trail** – This trail system needs cleared of trees, needs brush cut back, and trees need to be reblazed. Signs also need replaced for some of the individual trails.
- **T-Squared Trail** – this trail gets mowed and cleared of trees from the Benson Rd to the Black Forest Trail each summer.

C. Recreation Events

- **Eastern States 100** – On August 10, the Eastern States 100 will be held at Little Pine State Park. This elite foot race will utilize about 70 miles of hiking trails in the Tiadaghton State Forest.
- **Pine Creek Challenge** – In September, the 100 mile and 100-kilometer ultra-marathon race will be held on the Pine Creek Rail Trail.
- **Black Forest Ultramarathon** - This October, a 100-kilometer race will be had on the Black Forest Trail and T-Squared Trail.
- **Call of the Wilds Mountain Marathon** - On August 12, the Call of the Wilds 25/50K will be held at Little Pine State Park. This course features about 45 miles of hiking trails in the Tiadaghton State Forest.
- **Slate Run 25K** - On June 1, this trail running event will feature approximate 15 miles of the Black Forest and connecting trails.
- **Mile Run Challenge** - This annual half-marathon is held in the southern portion of the Tiadaghton State Forest and the northern portion of the Bald Eagle State Forest each spring.
- **YMCA Ride for the Y** – The annual Ride for the Y will be held on the Pine Creek Rail Trail in late September and feature approximate 29 miles of the trail.
- **Keystone Gravel** – This cyclocross bicycle event is held in mid-September and utilizes about 60 miles of trails and roads in the district.
- **Keystone Off-Road** - This mountain bike event is planned for May and features nearly 50 miles of trail and dirt roads in the district.
- **Hyner Hang Gliding Club** – The Hyner Hang Gliding Club launches from the vista at Auganbaugh Gap several times per year.
- **Jersey Shore Lions Club Family Fun Walk/Run** – In April the Lions Club of Jersey Shore will host a 5k run/walk on the Pine Creek Rail Trail starting in Jersey Shore.
- **Durty Dabbers Enduro** – In June the Durty Dabbers host an endure-style motorcycle event that incorporates state forest roads in multiple forest districts.

In the Tiadaghton State Forest, the Dabbers used roads solely in the southern portion of the district.

- **Slate Run Ramble** – In late spring and early autumn a public hike is led on trails near the village of Slate Run. The route may include portions of the Black Forest Trail, Golden Eagle Trail, Dragon’s Back, Quarry Mountain, Half-Dome, or other trails in the vicinity. The length of the course varies for each hike but is typically 9-12 miles.
- **Iron Cross** – This year an organized bicycle event was held starting in South Williamsport and extended into the southern part of the Tiadaghton State Forest and the northern part of Bald Eagle State Forest. The event featured mostly gravel roads except for two shared use trails.
- **Princeton Outdoor Action** – Each year Princeton University brings large groups of freshmen students on a backpacking trip on the Black Forest Trail-roughly 150 students attend each September.
- **AYSO 5K** – A local youth soccer league will host a 5k run on the Pine Creek Rail Trail

RECREATION 2018

A. Recreation Projects Completed

- **Tomb Flats Campground** - Numerous seedlings were transplanted to Tomb Flats to provide additional vegetation for further privacy and future shade.
- **Wood House Slide** - The Jersey Mills maintenance staff repaired a landslide north of Slate Run along the Pine Creek Rail Trail.
- **Pine Creek Rail Trail Bridge Deck Washing** - The Jersey Mills maintenance staff power washed all bridge decks along the Pine Creek Rail Trail to improve safety for cyclists and pedestrians when the decks are wet.
- **Slate Run Trestle Campsites** - To reduce rogue campsites near Slate Run, three designated campsites were established. Fire rings and picnic tables were moved to the sites. Hazard trees were removed, and down trees were bucked for firewood.
- **Trailhead Improvements** - A new sign marking the entrance to the Black Forest Trail was constructed and erected to improve visibility and aesthetics.

- **Turkey Vulture Trail** – Additional improvements were made by the PA Outdoor Corps to stabilize the trail.
- **Regrading of portions of the ATV Trail** – Additional aggregate was added to the Button Road to improve the road surface. Additionally, eroded sections of trail were improved by filling eroded sections with aggregate and improving drainage.
- **Trail Work** – Nearly all mowable sections of ski trails were mowed prior to winter. Two abandoned trails were re-established. Nearly three hundred miles of trail were cleared of down trees, and brush was cut back and/or mowed on tens of miles of trails. The majority of this work was completed by Bureau of Forestry staff, but significant assistance was provided by KTA, MSTA, and individual Conservation Volunteers.

TIMBER MANAGEMENT

Marked and sold, potentially active

- **Lerch Tr** – 2 age removal sale on 233 acres off of the Shaw Mountain Road. Currently being harvested.
- **Engine 309 sale along Sand Spring rd** – 294 acres Two Age Treatment, poorer site 2 (MAH22C) – to release the existing oak regeneration, future oak and other desirable stump sprouts while reserving all conifers, larger trees with current and future dens. This will be the first and only treatment in this area, due to the low deer population and larger one time treatment this will overwhelm the deer’s efforts to browse the desirable species. Currently being harvested.
- **Kyle’s Ridge II sale** – 193 acres of mostly overstory removal has been marked along the Big Springs Road. Completed spring 2018.
- **Farewell Timber beast** – This sale is sold and is along the Old Mountain Rd. This 175-acre sale will be primarily over story removal. Previous site projects were, mowing, planting and fence installations. Currently being harvested.

- **You're My Boy Blue**- 50-acre Shelterwood cut along the Button road. This is a first stage shelterwood cut to promote and existing to help establish new regeneration. Currently being harvested.
- **Heavy Breather removal sale**- 100 acres overstory removal sale marked inside the fences along Mckees road. Currently being harvested.
- **Broken Chimney II sale**- 62-acre sale consisting of 42 acres overstory removal and 20 acres two-age removal along route 44 in Potter County is currently being harvested.
- **Eye Gouger sale**- Overstory removal being harvested along Gap road near Elimsport. Completed February 2019, awaiting sale retirement.
- **Middle Hill**- marked and out for bid. 90 acres of overstory removal inside 2 fences along with 205 acres of shelterwood.
- **Bull Run Feather Duster Sale** – 203 acres located in various locations along the Bull Run Rd. Sold and waiting to be harvested.
- **Lonely Well Removal** – 69 acres overstory removal inside of 2 fences off of PA Route 44 near the potter county line
- **Sawyer's Last Stand timbersale** – 128 acres of overstory removal along the Gamble Run and Reynold's Spring roads. Out for bid.
- **Chestnut Ridge sale** – 97 acres of overstory removal inside existing deer fences. Out for bid.

Proposed (not marked yet)

- **Currently 2019 sales are being proposed for the following areas:** Manor Fork and Gas line trail approximately 250 acres of dead and dying in the form of a 2-age removal sale. A removal sale is being planned for the fences on the Silver Springs rd. A 2-age removal sale is planned for the fences along the Huntley Road as well.
- *Other sales could potentially begin in 2019 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 Tiadaghton State Forest.*

Regeneration projects

- Deer Fence Dismantle Projects – The district is still awaiting the dismantle of 5 deer fences from last year’s cycle and will have a few more to add to that list.
- Tree Planting – The district will plant approximately 67,000 conifers this coming spring to supplement natural regeneration within completed timbersale areas.
- Mowing- The district mowed 100 acres of mountain laurel this past fall with inhouse equipment and personnel. Another 100 plus is expected to be mowed in 2019 in house along with approximately 150 plus acres on contract.

RESTORATION AND HABITAT PROJECTS

2019 Projects

- An NWTF superfund request had been submitted in 2018 to convert 7 acres of the Breining Tract to native warm season grasses with a grass and clover fire break around it. This 7-acre plot will then be maintained with prescribed fire. The NWTF request would also cover the cost of 50 acres of Pathfinder II herbicide for continued focused herbicide application of invasive plants on or around food plots and herbaceous openings.
- Continue burning the expanded burn area at Bonnell Flats, which now includes the land formerly owned by the Boy Scouts of America. The new burn plan includes 55 acres in 4 units.
- In the spring we hope to finish the remaining 178 acres of prescribed fire at the end of Big Trail Road as well as continue to conduct the warm season grass burn at Bonnell Flats.
- DMAP plots and areas are being evaluated on an ongoing basis.
- An inventory of wooded food plot gates is underway, and the district is looking to replace the ones that are in disrepair.

ROAD AND BRIDGE PROJECTS

- Spring 2019 – Place Driving Surface Aggregate (DSA) road base to Pond Road. This Dirt and Gravel project will include culvert replacement to establish ditch line.
- Spring 2019 – Place 4” minus aggregate road base to Trout Run Road. This Liquid Fuels project is the first step prior to placing Driving Surface Aggregate to the road surface. This will include culvert replacement and adding aggregate to the road to establish ditch line.
- Sumer 2019 – Place 4” minus aggregate road base to Barrens Road. This Dirt and Gravel project is the first step prior to placing Driving Surface Aggregate to the road surface. This will include culvert replacement and adding aggregate to the road to establish ditch line.
- Summer 2019 – Bridge Replacement – Browns Run Road. over Browns Run, Trout Run Road over Trout Run, Yarrison Road over Yarrison Run.

PRESCRIBED FIRE/WILDFIRE

Prescribed Fire

2018 Accomplished

- No prescribed fires were conducted in District 12 in 2018.
- Fire forester became fully qualified national RXB2. Fire Forester and another forester became fully qualified nation firing bosses.

2019 Projected

- Continue burning the expanded burn area at Bonnell Flats, which now includes the land formerly owned by the Boy Scouts of America. The new burn plan includes 55 acres in 4 units.
- Finish the remaining 178 acres of prescribed fire at the end of Big Trail Road.
- Re-evaluate the fire along Limbaugh Road to see if a reburn will be necessary.

Write burn plans as foresters find areas they wish to burn.

Wildfire

2018 Accomplished

- Reported 45 wildfires in 2017 with the largest being a 16.38 acre fire that occurred along Wagmyr Lane in Green Township Clinton County.
- Wardens and employees conducted many prevention activities in Lycoming and Clinton Counties.
- Continued upgrade and replacement of PPE and equipment. Acquired a 2.5-ton military truck to build a tender. Purchased a 1,000-gallon water tank with accessories that was mounted on the tender.
- Had a new 500-gallon skid unit mounted on Engine 5121. This engine was also decaled to distinguish it as a primary fire vehicle for identification while on incidents.
- Received a new 150-gallon skid unit to replace the aging skid unit at the Waterville Maintenance Division.
- Replaced the skid unit at the Jersey Mills Maintenance Division with the 200-gallon skid unit removed from engine 5121.
- Refurbished 75-gallon UTV skid unit. Everything was replaced except the tank and hose reel.

2019 Projected

- Continue to modernize our equipment and response to wildfires within the district.
- Continue to support other districts by providing equipment and manpower as needed.
- A contract has been signed to finish the conversion of the 2.5-ton military vehicle into a type 4 engine. Skid unit construction will be completed prior to the spring 2019 fire season.
- Install decals on Fire Forester vehicle as well as the type 4 engine to help designate our vehicles on fire scenes as well as increase highway safety with reflective chevron on rear of vehicles.
- Schedule training as needed / requested.
- Continue to support the Wildland Fire Crew by sending employees out of state on wildfires.

INSECT, DISEASE, AND INVASIVE PLANT TREATMENT

- Despite a wet summer preventing many days of invasive treatment, the staff at the Tiadaghton State Forest were able to execute large-scale invasive treatments near multiple open areas and former/current food plots. In addition, multiple areas with known mile-a-minute populations were treated with preemergent herbicide. The

results of the preemergent treatment were very positive, and more acreage will be treated using this method in 2019.

- Significant effort was spent searching for and treating isolated patches and novel infestations of Japanese knotweed, poison hemlock, oriental bittersweet, swallow-wort species, and glossy buckthorn in 2018 and will continue through 2019. Because of the wet summer, substantial time was spent conducting cut-stump treatments on known oriental bittersweet plants in the fall of 2018.
- Japanese knotweed treatments on and near the Old Coudersport Pike and nearby tower sites were completed in 2017 and, with some minor follow up, may be considered complete in 2019. The staff of the Tiadaghton State Forest have found difficulty with fully eliminating upland populations of J. knotweed.
- Japanese knotweed treatments were completed in 2017 along the upper reaches of Upper Pine Bottom Run. Hundreds of small populations exist along this drainage and will be treated until they are eliminated. New populations were discovered in Lower Pine Bottom and along Krape Run, both of which will be treated until they are eliminated in 2019 and beyond.
- In 2019, attempts will be made to eliminate Japanese knotweed from the Little Pine Creek watershed (as the stream has relatively few populations along its banks and tributaries). Cooperation with multiple private landowners may be needed to ensure full elimination of J. knotweed.
- Aggressive treatment of Mile-A-Minute will continue along the rail trail corridor north of Slate Run, near Black Walnut Bottom and Tomb Flats camping areas, McKees road area, and along the rail trail corridor north of Jersey Mills.
- Aggressive pre-emergent treatment of Mile-A-Minute will continue at the Fluffy and the Goat timbersale (Fourth Gap Area). A native warm season grass was planted (Fall 2017) in the areas to receive pre-emergent treatment with the hopes of having something growing following treatment. This grass germinated well and is growing well. Only small spot treatments and hand removals were needed to eliminate mile-a-minute in the treatment areas.
- Aggressive treatment of Ailanthus will continue in the Second Gap and Mile Run Areas (focusing on past and current timbersales in those areas).
- Verticillium wilt was discovered in stands of Ailanthus across the district starting in the spring of 2017. The spread of the fungus will be monitored by researchers associated with West Virginia University.
- Strategic treatment of Japanese knotweed will continue throughout the district with a focus on isolated or newly discovered and manageable populations. Focus will be shifted towards new disturbance, areas where fill was dumped/moved, etc.
- New populations and novel invasive species continue to be discovered on the nearly 1,000 acres of disturbance associated with Marcellus shale development. Continued treatment of these invasives, where possible and deemed effective, will continue. The district will continue to rely on the shale gas monitoring crew as an extra set of eyes constantly looking for and reporting these invasive species associated with shale gas development. A recent patch of mile-a-minute was found on a pad near the Moore

Road Extension area. Pre-emergent herbicides and diligent follow up will be needed to ensure this isolated patch does not spread rapidly into the surrounding and relatively uninvaded forest.

- Many invasives are discovered near or on old timbersale landings and haul roads. Old landings and timbersales were scouted throughout 2017 and any invasive species, especially those found in low and isolated populations, will be eliminated in 2019. Invasives near newly planned timbersales will also be strategically targeted (e.g. Autumn Olive located along a state forest road leading towards a newly planned timbersale entrance).

A newly acquired UTV-mounted sprayer will continue to be used, in cooperation with the shale gas monitoring crew, for the treatment of roadside invasives. By some estimates, roadside invasive shrubs constitute the greatest number of isolated invasive shrubs in the Tiadaghton State Forest. Given the ease of treatment and the possible effectiveness of the treatment (e.g. eliminating the only Morrow's honeysuckle population for 10 square miles), this treatment method will be given priority during mid-summer, when other carefully timed and labor-intensive treatments (e.g. spring pre-emergent treatment or early fall basal spraying of root sprouting species) are not used.

NATURAL GAS, OIL, AND OTHER GEOLOGIC RESOURCE DEVELOPMENT

- Industry-driven overdevelopment and overproduction of natural gas has, not surprisingly, depressed the price of natural gas and related commodities. This is especially true in the region, with prices at the Leidy Hub approaching \$1.00/MMBTU. This low-price environment has stifled most new or previously planned development on the Tiadaghton State Forest
- Some minor drilling and hydraulic fracturing activity took place on the Tiadaghton State Forest. This was completed at a pad near the dead end of Parker Road and on two pads located near Schoolhouse Hollow Road.
- During 2018, both major gas operators on the Tiadaghton State Forest continued to dewater several fresh water impoundments to remove accumulated rainwater from the otherwise unused fresh water impoundments. Dewatering took place with the cooperation and monitoring of DEP staff. The staff of the Tiadaghton State Forest will continue to push for removal and reclamation of unneeded fresh water impoundments.
- During 2018, continued attempts were made to encourage natural gas operators to avoid mowing their rights-of-way and vegetated clearings associated with Marcellus infrastructure to encourage the growth of native warm-season grasses. As this pipeline network is used by snowmobiles, future efforts to mow the snowmobile trail will be limited to areas where woody shrubs would prevent proper grooming and travel on the trail. Otherwise, the warm season grasses will be pushed over by snowfall, snowmobile travel, and the first grooming of the

season.

- The staff of the Tiadaghton State Forest continue to work with natural gas operators to ensure access to state forest for uses other than natural gas development are not inhibited by the presence of natural gas infrastructure, such as pipelines.

TOWER AND RIGHT-OF-WAY PROJECTS

- Establishment of potentially a couple new communications towers on private land with ROW access off the Summit Trail. Still awaiting completion of these projects from 2018.

OPPORTUNITIES FOR PUBLIC ENGAGEMENT

- Meet and greet opportunities on the weekends.
- Family fishing days on Pine Creek in cooperation with the Pennsylvania Fish & Boat Commission.
- Jersey Shore Area Middle School: watershed education field day, compass and map classes, and invasive plants classes.
- Tree ID Trail hikes, kayak trips on Pine Creek and the Susquehanna River, History Hikes on the Log Slide Trail, and group rides on the Pine Creek Rail Trail.
- Fun in the Sun Day at Brandon Park, Williamsport.
- Woolrich Youth Day, Woolrich, PA.
- Jersey Shore YMCA Healthy Living Fair.
- Loyalsockville Elementary School 3rd grade Rail Trail ride.
- Boy Scout and Cub Scout merit badge classes.
- Schick Elementary School (Loyalsock District) Career Day
- Project Learning Tree and PA Songbird presentations.
- Charter School Field days at the TFRMC.
- Tiadaghton Forest Resource Management Center presentations for gas infrastructure tours, advisory council meetings, and other state and national groups using the meeting space at the Center.
- Counselor at DCNR's ECO-Camp.

RESEARCH

- In 2017 a planned USGS groundwater monitoring well was installed near Bull Run Road in the Tiadaghton State Forest. This will utilize a currently constructed and unused water withdrawal observation well originally installed to serve hydraulic fracturing needs at nearby well pads.
- During 2018, researchers from PSU, in cooperation with the USGS and the PA Fish and Boat Commission, continued research on small mouth bass populations in the Pine Creek, West Branch Susquehanna and associated watersheds.
- During 2018, researchers from WVU monitored Ailanthus within state forest lands that were infected with various species of verticillium wilt. The efficacy and spread of the fungi was monitored through 2018 and will continue into 2019.
- During 2016, the district and BOF central office staff continued our relationship with Ernst Seed Company and surveyed several pollinator overseeding trials on newly disturbed Marcellus shale gas infrastructure. Monitoring of these areas will continue throughout 2019.

MAJOR ACCOMPLISHMENTS FROM PREVIOUS YEAR