

Mt. Abraham – Lincoln, Vermont – Green Mountain National Forest

Green Mountain National Forest

Town Meeting Report

The employees of the Green Mountain National Forest (GMNF) depend heavily on support from many municipalities, volunteers, partners and contractors. The support the Forest receives helps to accomplish an extremely robust program of work. The Forest would like to take this time to thank you and your community for the support and interest that you have shown in helping with the management of the approximately 400,000 acre GMNF. Receiving several million outdoor recreation enthusiast visits annually, these visitors seek enjoyment in a natural setting while providing critical benefit to the local economies. The GMNF is proud to be a part of Vermont and your town. It is truly one of Vermont's treasures and the largest contiguous public land area in the state. Forest staff work hard to achieve quality public land management under a sustainable multiple-use management concept to meet the diverse needs of the people -- people in your town as well as all of the visitors who come to Vermont every year. Below is a brief summary of what happened in your National Forest throughout the past year:

Environmental Analysis and Decision Making

In Fiscal Year 2018 the Forest Service as a whole set a goal of decreasing the time and cost of our environmental analysis and decision making process. Locally, GMNF employees worked in conjunction with many partners to identify opportunities to better serve the public through internal and external efficiencies. In March of 2018, dozens of partner organizations met with the Forest Service at a roundtable meeting where we discussed working together to better meet the needs and interests of the general public. Since that meeting, we have taken critical steps to apply information that was highlighted at the meeting and we have worked internally to incorporate several suggestions into our daily efforts. These creative ideas have helped us enhance our processes at the local level and replaced obstacles and barriers with common sense solutions. We are in the early stages of setting the date for another partner meeting in March of 2019 where we hope to give partners an up-date on specific efficiencies that have been incorporated, offer a chance to discuss what we can be doing to support our partners and what our partners can be doing to support us and have an open dialogue about the concept of forming a "Friends of the Green Mountain National Forest" group. It goes without saying that each and every one of our

partners brings something different to the table and we appreciate every organizations contribution to our work.

Land Acquisition

Forty acres in the Town of Dorset was added to the National Forest. Acquisition of this parcel conserves a segment of Mad Tom Brook, and a stretch of the East Dorset Trail, thus conserving water quality, ensuring continued public access and sustaining a network of popular hiking trails.

Heritage Program

Ongoing partner projects included artifact analysis conducted by the University of Vermont (UVM) Consulting Archaeology Program, the Vermont Archaeological Society (VAS), and the Forest. This multi-year collaboration again involved the analysis of thousands of artifacts collected at the Homerstone Quartzite Quarry Project near Little Rock Pond.

Other highlights include:

- Heritage Program staff worked with local volunteers to discuss and visit heritage sites within the Robinson Integrated Resource Project (IRP) area. The results of these conversations and field trips was the recording and protection of sites that were in the vicinity of project areas within the IRP.
- Retired Forest Service personnel and volunteers visited a number of cemeteries within the Forest Proclamation Boundary to maintain and preserve them.
- The Forest Archeologist has been working with line officers and Vermont Division for Historic Preservation staff to develop a Programmatic Agreement (PA) that would create alternative procedures for addressing the workload involved with Section 106 of the National Historic Preservation Act. Final reviews of the document are underway, and it is anticipated that the PA will soon be implemented as a result of these efforts.

Road, Dam, & Facility Construction & Maintenance

In cooperation with federal, state and local governments, private contractors, and non-profit organizations, the GMNF Engineering staff repaired and maintained many roads, bridges and other facilities throughout the Forest. Some highlights are as follows:

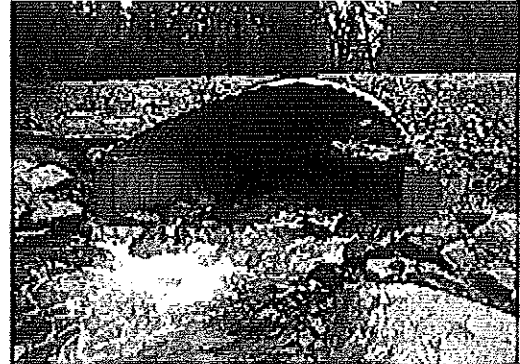
Forest Facility Improvements & Maintenance: Completed on-going routine maintenance and repairs of administrative buildings and other infrastructure including maintenance to HVAC systems and upgrades to restrooms. The Forest completed annual condition and safety inspections of all administrative facilities as well as out-year planning, design, and preparation for facility improvements.

Forest Road Cooperative Aid to Towns: Completed important road improvement and maintenance projects in the Towns of Goshen, Granville and Rochester. The Forest also cooperated with the Town of Brandon and the Federal Highway Administration (FHWA) to complete the reconstruction of the Churchill Road Bridge that provides access to the Mossalamoo National Recreation Area. Funds were acquired for the project through a Federal Lands Access Program (FLAP) grant from FHWA. The Forest was able to provide construction inspection services that aided in the Town's share of the project funding.

Forest Road Improvement Projects: Improved 2.0 miles of National Forest System roads in the Towns of Chittenden, Granville, Hancock, Mount Tabor, Peru, Ripton, Rochester, Stamford and Woodford. This work included the replacement of culverts, stabilization of embankments, repairing storm damage, and resurfacing of roads.

Forest Road Maintenance: Maintained 78.14 miles of National Forest System roads in the Towns of Ripton, Rochester, Chittenden, Goshen, Hancock, Mount Tabor, Peru, Somerset, Sunderland, Woodford, Winhall, Stamford, Wallingford, and Readsboro. This work included grading, ditching, culvert cleaning, mowing and brushing.

Road-Stream Crossing Improvements: Completed two Aquatic Organism Passage (AOP) projects, one in the Town of Chittenden on Forest Road 97 and the other on Forest Road 59 in Ripton. These projects not only restore aquatic organism passage but also improve the flood resiliency of the road.



Recreation Programs

The following accomplishments highlight 2018 Recreation and Trail Program successes in acknowledgement of the outstanding collaborative effort exhibited between Forest Service employees, partner organizations, volunteers, State and local government representatives, and local businesses. The Forest Service relies on a community of collaboration and wishes to thank all of our partners, such as: Vermont Association of Snow Travelers (VAST), Vermont All-terrain Vehicle Sportsman's Association (VASA), Vermont Youth Conservation Corps (VYCC), Rochester / Randolph Area Sports Trail Alliance (RASTA), Vermont Mountain Bike Association (VMBA), Green Mountain Club (GMC), Appalachian Trail Conservancy, Student Conservation Association (SCA), Town of Killington, Vermont Huts Association, Catamount Trail Association (CTA), Counseling Service of Addison County, Middlebury High School Diversified Occupations Program, Moosalamoo Association, Vermont Trail Trotters (VTT), Vermont Horse Council, and many more -- including our dedicated campground hosts!

With the help of the many hard-working volunteers and organizations we are able to provide a quality recreation experience in alignment with a strong environmental stewardship ethic. The following highlights capture large program accomplishments but represent only a portion of the annual work that is completed to develop, improve and maintain recreational opportunities on the GMNF:

Local Efforts:

Warren: collaborated with Mad River Riders on the grant-funded construction of Blueberry Lake's newest trail, Amenta's Way, as well as tread repairs on the existing trail network.

Killington: collaborated with the Town of Killington and Killington Mountain Bike Club to receive grant funding for Phase III of the Sherburne Trail network.

Rochester: Recipient of Chief's Honor Award Honorable Mention for work with Rochester-Randolph Area Sports Trail Alliance (RASTA) for the Brandon Gap backcountry recreation project.

Installed new interpretive signs to improve the appearance of popular recreation destinations such as Peavine (Stockbridge), Lefferts Pond (Chittenden), Silver Lake (Leicester), Blueberry Lake (Warren), Texas Falls (Hancock), and Thundering Falls (Killington).

Rochester / Stockbridge / Brandon: Hosted educational events with local school children.

Chittenden / Rochester: Collaborated with Vermont Huts Association to install a hut that is available for year-round reservation at Chittenden Brook Campground.

Leicester: Completed improvements in the Silver Lake Campground and Picnic Area, including new step construction with a local contractor and the Vermont Youth Conservation Corps' American Sign Language Crew. Additionally, held an event in recognition of long-term volunteer service of Constance Waldrip at Silver Lake.

Hancock: Worked with a local contractor and Route 100 VAST club to replace a bridge on the Taylor Brook snowmobile trail.

Wallingford: General Electric (GE) of Rutland assisted with the maintenance and pre-season clean-up at White Rocks Picnic Area for the 27th consecutive year! In partnership with GMC, a caretaker hosted visitors and maintained the Little Rock Pond Shelter and tenting area and maintained surrounding trails. Additionally, GMC's Long Trail Patrol spent a week working on Long Trail tread repair in the White Rocks National Recreation Area.

Mount Tabor: A new snowmobile bridge on the Ten Kilns trail at the fourth bridge site is planned to be installed this winter. A temporary bridge has been in place in order to keep the trail open after the former bridge was found collapsed in November of 2016. A new information panel was installed on the Lake Trailhead kiosk providing improved information about area recreation opportunities and the Big Branch Wilderness.

Weston: New campground kiosk signs were installed at all of the district campgrounds including Greendale Campground. In addition to the improved appearance, the signs provide better information regarding the area amenities and regulations.

Peru: New campground kiosk signs were installed at all of the district campgrounds including Hapgood Recreation Area. In addition to the improved appearance, the signs provide better information regarding the area amenities and regulations. In partnership with GMC, a caretaker hosted visitors and maintained the Griffith Lake Tenting Area and Peru Peak Shelter and maintained surrounding trails. New information panels were installed on both the AT / LT Mad Tom Notch and Forest Road 58 Griffith Lake Trailhead kiosks providing improved information about area recreation opportunities and the Peru Peak Wilderness.

Dorset: In partnership with Northshire Area Trail Systems (NATS), a VMBA chapter, and 3 weeks of VYCC time, construction continued on the 4 mile Dorset Hollow trail. This trail will provide additional trail opportunities in the Dorset area and eventually will provide access to the Dorset Ridge area in the Taconics.

Manchester: Smokey Bear showed up once again at the 2nd annual Vermont Trails Fest organized by the Manchester Appalachian Trail Community group. Additionally, a short relocation of the Lye Brook trail was constructed to move the trail away from a dangerous area that was sloughing into the Lye Brook. This trail is one of the most heavily utilized segments of trail on the GMNF as nearly 8,000 hikers signed the trail register located 0.25 miles from the trailhead so far in 2018.

Winhall: In partnership and funded by VAST and the Woodford SnoBuster's snowmobile club, trail work was completed on the Jenks Connector trail north of Kendall Farm Road. GMC volunteers and

staff along with a college service crew completed repairs to the wooden puncheon structures on the Branch Pond trail north of Douglas Shelter. A new GMNF portal sign was installed on Route 11/30.

Sunderland: A new information panel was installed on the Branch Pond Trailhead kiosk providing improved information about area recreation opportunities. A Wilderness Volunteers group spent a short week maintaining a remote section of the Lye Brook trail near Bourn Pond in the Lye Brook Wilderness. The volunteer crew had participants from all over the continental U.S. including CA, NV, AZ and MD.

Stratton: According to GMC's long-time caretakers at the Stratton tower, nearly 10,000 people visited or passed through this site from late May – Columbus Day. Additionally, a caretaker hosted over 1,000 overnight visitors at Stratton Pond Shelter and tenting area this past summer. This caretaker also maintained the privies and surrounding trails in the area. At Grout Pond Recreation Area, Williams College students as well as volunteers from CTA and Dutch Hill Alliance of Skiers and Hikers (DHASH) maintained trails for use by both hikers and skiers. Tent pads and trail boardwalk also underwent repairs. A new camping fee of \$16 per night was implemented to help cover costs of maintenance and provide funding for future site improvements. New campground kiosk signs were installed at all of the district campgrounds including Grout Pond Recreation Area. In addition to the improved appearance, the signs provide better information regarding the area amenities and regulations.



Somerset: New campground kiosk signs were installed at all of the district campgrounds including Somerset Airfield Campground. In addition to the improved appearance, the signs provide better information regarding the area amenities and regulations.

Bennington: An SCA crew relocated a section of the Bald Mountain trail in the Glastenbury Wilderness. The trail had been located in a streambed and was difficult to navigate during wet periods of time. Additionally this crew picked up trash that had been dumped and had accumulated over the years near and just within the boundaries of the Glastenbury Wilderness.

Woodford: An SCA crew maintained and improved trail drainage and signs on the Little Pond hiking trail as well as the Bear Wallow / Bald Mountain trail. Bennington Trail Cruisers (BTC), a VASA club, completed their first season of work on the Stage Coach Trail and Forest Trail 391 / Corridor 9. Their work included rerouting Corridor 9 away from a sensitive fen area, constructing hardened fords over stream crossings, and making numerous drainage repairs to the trail. While these routes are not yet identified on the state-wide VASA map, it is expected that continued improvements in the area will make the trails suitable for public use in the future. GMC's Volunteer Long Trail Patrol worked for two weeks south of Congdon Shelter on the AT / LT improving trail tread.

Readsboro: DHASH worked to open more areas of former Dutch Hill Ski Area to backcountry skiing and boarding. A new information kiosk was installed at the parking area this fall.

Pownal: A VYCC crew spent two weeks on the Dome Trail off of White Oaks Road relocating a section of the trail out of a streambed. Additionally a trailhead kiosk was installed with plans to provide the public with information regarding trail opportunities and future forest management actions planned for the area.

Stamford: Staff, volunteers, and a college service crew replaced sections of rotten puncheon near Seth Warner Shelter.

Agreements:

The Forest Service continued working with partners in Fiscal Year 2018 through numerous agreements. Through challenge cost share agreements VAST reconstructed the Taylor Bridge on the Taylor Brook Trail in Hancock; and maintained and repaired a number of other trails and bridges. The GMC completed deferred maintenance on the Branch Pond Trail in the Lye Brook Wilderness and the Long Trail in the Breadloaf Wilderness, reconstructed the Tucker Johnson shelter and privy, maintained privies on the Appalachian Trail and the Long Trail; and provided caretakers for five shelter areas. The VYCC maintained day use areas and trails, worked on construction of the Dorset Hollow Trail in Dorset in cooperation with NATS, and rehabilitation of the Dome Trail in Pownal. The Lexington School for the Deaf and the VYCC American Sign Language crew provided a crew of hearing and deaf youth who worked on non-native plant removal and trail maintenance. An agreement with the Lexington School for the Deaf provided opportunities for students to learn about public land management through hands on learning. The SCA provided a crew to work in the Bolles Brook watershed in the Glastenbury Wilderness to construct a trail relocation and address erosion issues on the Bald Mountain Trail, improve drainage and trail tread on the Little Pond AT / LT access spur trail, and remove debris such as tires and a culvert from the Wilderness. The CTA and DHASH continued reopening ski lines on the Old Dutch Hill Ski Area for backcountry skiing and hiking, and installed a new kiosk. VASA began the restoration of the Old Stage Trail and relocation of FT 391 – Corridor 9 moving the trail away from Thendara Camp Fen to prevent sedimentation from going into the fen.

Wilderness:

The GMNF continued to implement the national Wilderness Stewardship Performance measures. The Forest Service conducted a Wilderness Awareness Training for staff and partners. A Wilderness Education and Interpretation Plan was approved and many activities in the plan were accomplished including: the installation of new kiosk panels at Bristol Cliffs Wilderness; the erecting of signs to inform the public of the rare plants in the Mount Horrid area of the Battell Wilderness in order to prevent the trampling of plants; implementing a closure order to prevent tree cutting on Monastery Mountain and improving Wilderness web site content. The SCA provided a crew to work in the Bolles Brook watershed in the Glastenbury Wilderness to construct a trail relocation and address erosion issues on the Bald Mountain Trail, improve drainage and trail tread on the Little Pond AT / LT access spur trail, and remove debris such as tires and a culvert from the Wilderness.

Special Uses:

The GMNF administered 126 Land Special Use Permits to standard along with 14 proposals and applications processed to a decision. 38 Recreation Special Use Permits were administered to standard, with 4 proposals and applications being processed to a decision.

Botany Program

Staff and volunteers monitored 115 populations of rare plants Forest-wide, including some populations just off National Forest lands.

As part of the Robinson Integrated Resource Project, staff inventoried approximately 75 acres in the towns of Rochester, Hancock, Chittenden, Stockbridge, and Pittsfield.

In preparation for implementation of the Somerset Integrated Resource Project, 2,047 acres were inventoried in the towns of Stratton, Somerset, Wilmington, Searsburg, and Woodford. Six new rare plant populations were found.

A winter snowshoe trip to look at winter plant and animal life and control barberry was offered in Hancock. A wildflower walk was held at the Rochester Ranger Station in Rochester, and another was offered at the Minnie Baker Trail in Goshen. A hike to look at plants was provided for Howard Center students from Rutland at Thundering Falls in Killington.



As a result of grant funds received by the Upper White River Cooperative Weed Management Association, of which the GMNF is a founding member, the following activities pertaining to non-native invasive plants occurred in the towns of Granville, Hancock, Rochester, Stockbridge, and Pittsfield:

- A coordinator was hired, who gave an educational talk on non-native invasive plants and offered assistance to local landowners who wanted help developing treatment plans and recruiting volunteers to control invasive species on their properties.
- The coordinator monitored 21 small infestations of non-native invasive plants and hand-pulled 17 of those along town and state roads as part of an “Early Detection Rapid Response” effort in these same towns; species pulled were primarily wild chervil and garlic mustard, totaling 1.9 acres.

Many small infestations were controlled by staff, contractors, and partner organizations, including VYCC, GMC, and ATC. While these infestations represent only a fraction of known infestations and many more are unmapped, they were chosen because they are in strategic locations or because they are relatively more feasible to control than others. A total of over 34 acres of the following species were controlled in these towns:

- Dorset: Garlic mustard at a mountain bike trail head (0.1 acres total).
- Granville: Wild chervil on Forest Roads 50, 55, and 101, Japanese knotweed at Rob Ford Meadows (20.2 acres total).
- Hancock: Wild chervil and wall lettuce at Swan’s Mill (1.1 acres total).
- Leicester / Salisbury: Wild chervil on Forest Road 27, the road to Silver Lake (2.4 acres total).
- Manchester: Morrow honeysuckle at Richville Road wildlife opening (1.8 acres).
- Pomfret: Spotted knapweed at the Arms Hill (3.1 acres) and shrubby NNIP at Merrill Hill (1.1).
- Ripton / Lincoln: Wild chervil on Forest Road 54 (2.4 acres total) and Forest Road 67 (3.6 acres total).
- Rochester: Wild chervil surrounding the Rochester District Ranger Station (1.5 acres total) and Japanese barberry (0.2 acres).

- Shrewsbury: Multiflora rose and other woody invasive plants were masticated where the AT passes through a pasture (1.8 acres).
- Stamford / Pownal: Several species along roads in the Maltese timber sale area (0.2 acres total).
- Stratton: Wild chervil in three patches around Grout Pond (0.2 acres total).

As a result of a grant received by the newly formed Batten Kill Cooperative Invasive Species Management Association (CISMA), of which the GMNF is a founding member, a coordinator was hired through the AmeriCorps to plan and implement a variety of inventory, control and outreach / education events in 2018. This coordinator also assisted with the honeysuckle control at Richville Road in Manchester. The CISMA incorporates parts of Rupert, Sandgate, Arlington, Shaftsbury, Dorset, Manchester, Sunderland, Glastenbury, Peru, Stratton, and Winhall.

Forest Vegetation Management

Below is a list of accomplishments for calendar year 2018:

- Timber sales were prepared in Pownal, Readsboro and Stamford associated with the South of Route 9 Integrated Resource Project.
- Retained receipts (timber revenue) from stewardship contracts funded non-native invasive plant control and erosion control in Pownal and wildlife opening creation in Stamford.
- The Forest awarded contracts to remove damaged or diseased trees to prepare sites for reforestation on 328 acres in the towns of Bristol, Granville, Hancock, Peru, Salisbury, Leicester and Goshen.
- The Forest awarded contracts for timber stand improvement and crop tree release work on 100 acres of young forest in the towns of Pownal, Stamford and Ripton.
- Site preparation activities to promote oak regeneration were conducted on approximately 28 acres in Pownal. These activities include cutting competing vegetation and field trials for herbicide treatment of diseased beech.
- Our staff cooperated with the Vermont Department of Forests, Parks, and Recreation and Middlebury College in the maintenance of Butternut Seed Orchards in Brandon and Middlebury. Seedlings were cultured from disease resistant trees found on State, private, and National Forest locations and were cross pollinated to further research and efforts to develop disease resistance.
- The Forest provided maple tapping opportunities to six permit and contract holders for 8,713 taps in the towns of Lincoln, Stockbridge, Pomfret, Wilmington and Mount Tabor.



- Staff developed proposed vegetation management activities for the Robinson Integrated Resource Project. This project will include restoration activities and timber harvest on nearly 10,000 acres in Rochester, Hancock, Goshen, Pittsfield and Chittenden.
- Staff developed proposed vegetation management activities for the Early Successional Habitat Creation Project. This project would include habitat creation and timber harvest on approximately 1,000 acres per year over the course of 15 years for an estimated 15,000 acres in total across Arlington, Dover, Glastenbury, Jamaica, Landgrove, Manchester, Mount Holly, Mount Tabor, Peru, Pownal, Readsboro, Searsburg, Shaftsbury, Stamford, Stratton, Sunderland, Wallingford, Wardsboro, Weston, Wilmington, and Woodford.
- Staff began collecting forest inventory data and conducting landscape assessment in support of vegetation management for the Somerset Integrated Resource Project in Dover, Glastenbury, Stratton, Somerset, Searsburg, Wilmington, and Woodford.
- Staff began collecting forest inventory data and conducting landscape assessment in support of vegetation management for the Telephone Gap project in Chittenden and Pittsfield.
- Permits were sold for approximately 245 cords of firewood, 400 (estimated) Christmas trees, 840 pounds of wild apples, 2 tons of boughs and 400 pounds of wild mushrooms.
- Staff continued work in restoring native trees (including butternut, American chestnut and beech) with research partners. GMNF employees located “challenged” beech trees that appeared to be resistant to beech scale insect in order to test their resistance.

Environmental Planning

In calendar year 2018, Forest staff completed 29 site-specific National Environmental Policy Act (NEPA) decisions and analysis documents for multiple resource projects designed to implement the Green Mountain National Forest Land and Resource Management Plan (Forest Plan). A major highlight to note includes the final decision for the Robinson Integrated Resource Project located primarily in the towns of Rochester, Hancock, Chittenden, Stockbridge and Pittsfield. This project began in early 2016, and the decision reflects collaborative efforts with towns, agencies, organizations and individuals to manage the National Forest with multiple resource project activities across a large landscape area.

In May, the Early Successional Habitat Creation Project was initiated that proposes the harvest of approximately 1,000 acres per year over a 15-year period for an estimated 15,000 acres treated across the Manchester Ranger District in multiple towns to create early forest habitat for birds and other wildlife. The decision for this project is anticipated for early January 2019.

We continued to work on the Somerset Integrated Resource Project located primarily in the towns of Dover, Glastenbury, Stratton, Somerset, Searsburg, Wilmington, and Woodford. A public meeting was held at Stratton Mountain Resort in March to provide project information and invite public input and ideas for how to manage this part of the National Forest. Forest staff then continued to collect inventory and data, and met with members of the public to help develop potential multi-resource management activities. Formal invitation for comment on the final proposed action is planned for January 2019 with the preparation of an environmental assessment and final decision by summer.

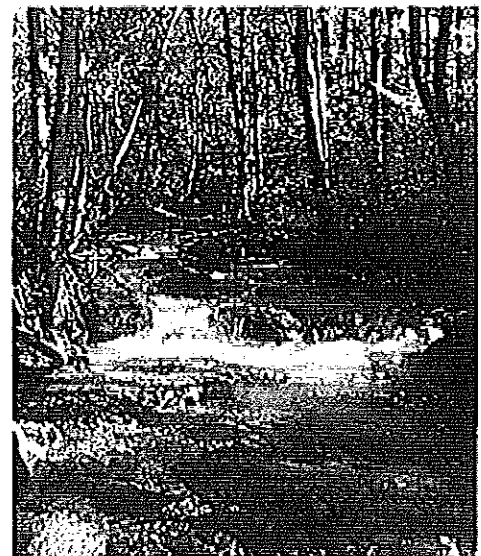
Other highlights include the renewal of a master special use permit to Green Mountain Power for powerline right of ways across multiple towns throughout the Forest; the issuance of a special use permit

to construct and operate a year-round hut at Chittenden Brook Campground for public use in the town of Chittenden; alpine ski trail widening at Mount Snow Ski Resort in the town of Dover; and a variety of special use permits for the use of National Forest lands such as outfitter and guiding, private land access, and Nordic trail improvements in multiple locations across the Forest.

Watershed Improvement

Biologists and Technicians monitored fish populations throughout the GMNF in 2018. This monitoring is part of a long term data collection effort to understand forest fish populations. Additional sites were sampled to support the Vermont Department of Environmental Conservation. Streams in the following towns were sampled during the 2018 field season: Rochester, Lincoln, Chittenden, Pittsfield, Goshen, Landgrove, Weston, Peru, Pawlett, West Pawlett, Woodford, and Dorset.

The Forest Service and partners completed 3 Aquatic Organism Passage (AOP) projects in 2018. On the North Half of the forest in the town of Chittenden the last of 5 AOP projects in the Michigan Brook watershed was completed. This removes all manmade barriers to aquatic organisms in this wild trout headwater stream. The second project was the final of 3 culvert replacements on Wing Farm Brook in Rochester. This project was completed with the help of the White River Partnership. Wing brook in Rochester is now free of any man made barriers to aquatic organisms. The final AOP project occurred on Forest Road 59 (Steam Mill Road) in the town of Ripton. This project removed and replaced an undersized culvert helping to protect the road way, and provide native trout upstream access to the Middle Branch of the Middlebury River.



In the town of Rochester the GMNF hosted the second year of the Freshwater Snorkeling Program. Over a two week period in September, 298 students spent a full day learning about the important role forests play in protecting water resources. Schools from Rochester, Stockbridge, Bethel, Newton, South Royalton, Randolph, Braintree, and Pomfret (Prosper Valley) participated; we have already received requests for next year's program. The White River Partnership has joined this effort and we look forward to providing this educational opportunity for the foreseeable future. We are also looking for other watershed partners to expand this program.

Fish stocking to support recreational fisheries occurred in the following area ponds: Griffith and Big Mud in Mount Tabor; Stratton in Stratton; Little Rock in Wallingford; Hapgood Pond in Peru, and Branch, Bourn and Beebe Ponds in Sunderland as well as King's Pond in Rochester. The Stocking at Hapgood Pond benefitted the annual fishing derby in Peru. In addition, a fishing derby was held in Rochester in partnership with the Route 100 Lion's Club.

The GMNF in cooperation with Vermont Department of Fish & Wildlife continued the aerial stocking of native eastern brook trout in high mountain wilderness ponds in the towns of Wallingford, Mount Tabor, Stratton, and Sunderland. High elevation ponds are desirable as a brook trout recreational fishery, provide a unique experience in remote wilderness areas, and could help in establishing viable fish populations.

Riparian planting occurred at multiple sites within the White River watershed to help restore aquatic habitat. The GMNF assisted the White River Partnership and VYCC at sites in Granville, and Rochester. The combined plantings helped protect one kilometer of stream bank.

Stream restoration also occurred throughout the forest with “chop and drop” activities restoring aquatic habitat along 11 kilometers of forested streams by reintroducing large woody material. These activities took place on the Little Mad Tom in Dorset, Michigan brook in Pittsfield and Chittenden, as well as, Bingo brook in Hancock and Rochester.

Wildlife Habitat Improvement

Wildlife habitat was improved and maintained through the creation and maintenance of early successional habitat important to many species. Approximately 600 acres of permanent upland openings were maintained by prescribed fire, mowing, or mastication in the towns of East Dorset, Goshen, Granville, Hancock, Hartford, Lincoln, Manchester, Mount Holly, Mount Tabor, Pittsfield, Pomfret, Ripton, Rochester, Warren, Salisbury, and Winhall. Nearly 40 acres of new upland openings were created as part of timber harvests in Granville. Work to regenerate 70 acres of aspen continued in Lincoln and Bristol. In addition, apple trees, which are a high-value wildlife food, were “released” by cutting competing vegetation from around old orchards in Rochester, Dorset, Pittsfield, Hancock, Granville, Mount Holly, Mount Tabor, Peru, Readsboro, Somerset, Stratton, Weston, and Winhall.

Wildlife Biologists and Technicians continued work with the Vermont Department of Fish and Wildlife to monitor the populations and habitat requirements of bats in the years following the advent of White Nose Syndrome. Additionally, Forest Service staff are working with State of Vermont biologists and Virginia Tech on an experiment to understand resistance to White Nose Syndrome in little brown bats in the town of Stockbridge. Potential timber sale units within the boundaries of the Somerset Integrated Resource Project (towns of Somerset and Stratton) were monitored to determine the species composition of the bats on the landscape. Staff also assisted the Vermont Department of Fish and Wildlife with Indiana bat monitoring in Bridport and Addison.

Peregrine falcon nest sites on the GMNF in Rochester, Salisbury, Stockbridge, and Wallingford continue to be monitored, and closures to protect sensitive nesting habitat continue seasonally from March 15th to August 1st each year. The peregrine falcon was removed from the federal list of endangered and threatened species in 1999 and the Vermont State list of endangered species in the spring of 2005, however, the species remains on the Regional Forester Sensitive Species list.

In a partnership with Forest Service State & Private Forestry, pollinator habitat was assessed in permanent upland openings located in Granville, Hancock, Pittsfield, and Rochester. Our objective this year was to understand the distribution of milkweed in forest openings, and milkweed’s response to management activities and treatments within and near the forest.

The GMNF staff assisted the Vermont Center for Ecostudies with their long-term forest bird monitoring program. Surveys were conducted twice during the breeding season at sites in Hancock. Staff also continued conducting the Stratton Route of the North American Breeding Bird Survey. This long-term, continent-wide effort is organized by the United States Geological Survey. The Stratton Route passes through the towns of Jamaica, Londonderry, Stratton, and Winhall. Surveys were also conducted as part of the Glastonbury Mountain bird watch in the town of Glastonbury.

GMNF staff continued to work closely with the Vermont Department of Fish and Wildlife on a black bear study in the vicinity of the Deerfield Wind Project site. The goal of this long-term effort is to determine how the project may impact black bears and their habitats. Bears have been captured and tracked in the towns of Readsboro, Stamford, and Woodford.

Along with the Vermont Department of Fish and Wildlife and Central Connecticut State University, the GMNF staff assisted in deploying camera traps at several sites within the Manchester Ranger District to determine the presence of the American marten, which was reintroduced to the Forest in the early 1990s after it was believed extirpated. Cameras were placed within the towns of Arlington, Bennington, Dorset, Glastenbury, Manchester, Mount Tabor, Readsboro, Somerset, Stratton, Sunderland, Weston, Winhall, and Woodford. This is the final year of this study on the Forest.

In another partnership with the Vermont Department of Fish and Wildlife, GMNF staff have instituted a long-term program to monitor the federally-threatened Canada lynx through the use of camera traps. This program began in response to two confirmed lynx sightings in 2016 near GMNF lands. The goal is to determine if a breeding population occurs on the GMNF while also collecting valuable data on other carnivores. Camera traps were monitored across the GMNF in the towns of Chittenden, Hancock, Glastenbury, Granville, Killington, Leicester, Lincoln, Manchester, Mount Holly, Mount Tabor, Peru, Readsboro, Ripton, Searsburg, Somerset, Stamford, Stratton, Sunderland, Wallingford, Wardsboro, Warren, Weston, Wilmington, Winhall, and Woodford.

Soil / Water Monitoring

Best Management Practice (BMP's) monitoring took place throughout the Forest. The National BMP Program integrates water resources protection into management activities across the landscape. The program is intended to demonstrate compliance with the Clean Water Act, which is required by the Environmental Protection Agency (EPA) and administered by the states, through rules and regulations, including Vermont's Acceptable Management Practices (AMPs) for logging jobs, and Vermont water quality standards. Forest Soil Disturbance Monitoring was conducted on 28 timber sale units throughout the Forest to estimate forest management effects on soil and water resources.

Long-term Ecosystem Monitoring

Between 2008 and 2011, twenty Long-term Ecosystem Monitoring Plots (LEMPs) were established on the GMNF in order to measure change in key ecosystem parameters over the next fifty years. The GMNF worked with partners to review and refine methods and identify opportunities for additional collaboration in gathering and processing monitoring data. Through an agreement with UVM's Rubenstein School of Environment and Natural Resources (RSENR) and the Forest Ecosystem Monitoring Cooperative (FEMC), five plots were sampled this year in Mount Tabor, Sunderland and Winhall.

During 2015, a group of collaborators from the RSENR, the Vermont Department of Forests Parks and Recreation and the FEMC developed a state-wide network of forest health monitoring plots, building on past and existing forest health monitoring initiatives, including plots on the GMNF associated with the GMNF LEMP project, the Forest Service's Forest Inventory and Analysis Program, and the State's Hardwood Health Survey. This partnership led to the inclusion of a total of 12 plots on the GMNF as part of this network, in the towns of Bristol, Lincoln, Ripton, Salisbury, Leicester, Hancock, Rochester, Wallingford, Peru, Winhall, and Woodford. Monitoring at these locations will provide insight into long-term changes occurring in relatively undisturbed forest ecosystems in response to stressors such as atmospheric deposition, climate change, and invasive pests. These plots were monitored in 2017 and 2018.

Research Activities

The following is a list of research approved on the GMNF in addition to soil and forest ecosystem monitoring, which continued in 2018:

- Adrienne Brand, Biologist, Northeastern Amphibian Research and Monitoring Initiative, USGS - a research project studying the presence of the amphibian fungus *Batrachochytrium salamandrivorans* (Bsal) in wild amphibian populations, in the towns of Somerset, Woodford, Winhall, Stamford, Chittenden, Mount Tabor, Mount Holly, Weston, Pomfret, Norwich, and Bridgewater.
- Lauren Ash, Graduate Student, UVM - a survey for the presence of Ranaviruses and other amphibian disease in green frogs (*Lithobates clamitans*), wood frogs (*Lithobates sylvaticus*), spring peepers (*Pseudacris crucifer*), spotted salamanders (*Ambystoma maculatum*), and Eastern newts (*Notophthalmus viridescens*), in the vicinity of Abbey Pond in the towns of Bristol and Lincoln.
- Dr. Paul Hapeman, Assistant Professor of Biology, Central Connecticut State University - a research project studying the extent of occurrence of American marten (*Martes americana*) in southern Vermont and northwestern Massachusetts and key habitat features associated with their presence.
- Nick Lazio, Agricultural Research Services, USDA - collection of up to 300 seeds and a branch from *Viburnum acerfolium*, *V. dentatum*, *V. lentago*, *V. opulus*, and *V. trilobum* in the town of Goshen.
- Terry Huang, The Arnold Arboretum of Harvard University - collection of samples of *Kalmia angustifolia*, *Kalmia polifolia*, *Juglans nigra*, *Quercus alba*, *Quercus montana*, *Quercus velutina*, *Platanus occidentalis*, *Rhododendron groenlandicum*, *Sassafras albidum*, in the town of Woodford.

Wildfire and Prescribed Fire Activities

Fire management personnel on the GMNF were very active this past season accomplishing twenty prescribed fires while suppressing or assisting in the suppression of two GMNF wildfires. Prescribed fire treatment objectives were focused on reducing hazardous forest fuels, improving wildlife habitat and reinvigorating native blueberry patches. The following are the prescribed burns that were carried out and the wildfires that were responded to this past year:



Town	Activity	Name	Acres
<u>Warren</u>	Prescribed Fire	Blueberry Lake Trailhead	11
<u>Warren</u>	Prescribed Fire	Blueberry Lake Piles	1
<u>Rochester</u>	Prescribed Fire	Lyons Bridge	10
<u>Rochester</u>	Prescribed Fire	Tupper Terrace	56
<u>Ripton</u>	Prescribed Fire	Widows Clearing	5
<u>Granville</u>	Prescribed Fire	Rob Ford Grouse Piles	2
<u>Pomfret</u>	Prescribed Fire	AT Dupuis Piles	2
<u>Bridgewater</u>	Prescribed Fire	AT Woodward Piles	2
<u>Woodstock</u>	Prescribed Fire	AT Upper Lewis Piles	2
<u>Winhall</u>	Prescribed Fire	Country Road C	10

<u>Mount Tabor</u>	Prescribed Fire	Ten Kiln Ragged Window	10
<u>Mount Tabor</u>	Prescribed Fire	Ten Kiln Devils Den	27
<u>Mount Tabor</u>	Prescribed Fire	Ten Kiln A	13
<u>Mount Tabor</u>	Prescribed Fire	3P	17
<u>Mount Tabor</u>	Prescribed Fire	Old Job	24
<u>Mount Tabor</u>	Prescribed Fire	Forest Road 30	30
<u>Mount Tabor</u>	Prescribed Fire	Forest Road 31	38
<u>Stratton</u>	Prescribed Fire	Grout Pond	20
<u>Granville</u>	Wildfire	Forest Road 55	.1
<u>Ripton</u>	Wildfire	Snow Bowl	.1
		Total Acres	280.2

In addition to the work that was done here in Vermont, 20 individuals were involved with providing support directly or indirectly for wildfire season here in Vermont and nationally. This support was in the form of assisting in the mobilization of resources or by directly responding to wildfires and all hazard incidents throughout the nation. These 20 individuals collectively spent approximately 732 days on these efforts.

The fire management staff would also like to thank the dedicated firefighters from the Volunteer and Municipal fire departments that responded to and assisted in the suppression of the wildfires that occurred this past year on the GMNF.

Conservation Education

Employees of the GMNF were invited to attend the 2018 Addison County Fair and Field Days in Addison, where they were asked by passersby to answer many questions from the public about management efforts on the 400,000 acre National Forest. The fair continues to be a wonderful venue to discuss forest related issues with our partners and gather information from the public.

Each year, GMNF employees join partners in the Forestry Building at the Vermont State Fair in Rutland where exhibits from the Vermont Department of Forest, Parks & Recreation, the GMNF, Vermont Audubon Society and many other local entities are displayed. During 2018, Smokey Bear was again featured at the fair and greeted visitors. Smokey and his handler continue to enjoy fielding questions about forestry and fire safety topics from adults and children.


Again in 2018 the GMNF partnered with Shelburne Farms to sponsor the Forest For Every Classroom program which works to educate New England-based teachers about forest stewardship issues, provide tools to develop place-based service-learning curricula that meet current educational standards, and use local landscapes, resources and community to connect classroom learning to real world application. Over the course of the year-long program participants integrate hands-on natural and cultural explorations into curriculum to address concepts in ecology, sense of place, stewardship, and civics. Participants in turn implement their learning into their instruction during the school year, then share out and reflect on their experiences with their fellow peers. The program continues to be a huge success in helping educators transfer and translate sustainability concepts in to their curriculum, instruction, and life.

Another critical program that we are proud to support is the Vermont Envirothon. The Vermont Envirothon helps students focus on Vermont's environmental issues related to forestry, wildlife, soils and water resources through real-world learning in a teamwork environment. We would like to thank the

Vermont Association of Conservation Districts for coordinating this important program and the many agencies and natural resource and conservation partner organizations that work hard to make the Vermont Envirothon possible each year. The program provides an opportunity for hands-on field experiences and activities with professionals in the field and serves as a way for high school-aged students to actively learn more about the natural world around them while they work together. Students learn to incorporate science-based investigations in helping to explore environmental issues. The 23rd Vermont Envirothon was held on May 23, 2018 at the Mount Norris Scout Reservation in Eden, Vermont. Ten teams were able to participate this year in the culminating competition. The top three overall results were as follows:

- First Place Overall Total Score: Bellows Falls Union High School
- Second Place Overall Total Score: Stafford Technical Center Team #1
- Third Place Overall Total Score: Rutland High School

Again, thank you for your support of your National Forest. Together, we will continue to maintain and improve this valuable treasure for generations to come. Our offices are open Monday through Friday from 8:00 AM until 4:30 PM. You can also visit us and learn more about the GMNF at our website on-line: <https://www.fs.usda.gov/gmfl>. Like us on Facebook: <https://www.facebook.com/GreenMountainFingerLakesNF/>

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