



VERMONT 2017 FOREST ACTION PLAN *5-YEAR ACCOMPLISHMENTS*



Agency of Natural Resources

Vermont Department Forests, Parks and Recreation
VERMONT DIVISION OF FORESTS



ACKNOWLEDGEMENTS

VERMONT DEPARTMENT OF FORESTS, PARKS AND RECREATION

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Recognition is given to all the people and partners who are supporting the implementation of Vermont's Forest Action Plan, and to John Sears for the compilation of the report.

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OVERVIEW

The Department of Forests, Parks and Recreation (FPR) has the statutory authority to assess the state's forest resources and guide the department in fulfilling program responsibilities. In addition, each state is required to complete a state assessment and develop resource strategies to receive funds from the USDA Forest Service under the Cooperative Forestry Assistance Act (CFAA). The Vermont Division of Forests receives approximately 20% of its funding through the CFAA for Forest Stewardship, Urban and Community Forestry, Forest Legacy Administration, Fire Assistance, and Forest Health Monitoring. In 2017, FPR submitted The 2017 Vermont Forest Action Plan (Plan) to the USDA Forest Service's State and Private Forestry.

The 2017 Plan lays out goals and strategies towards a desired future condition in biological diversity; forest health and productivity; forest products and ecosystem services; land ethics; and legal, institutional, and economic framework. The Plan is a proactive, comprehensive, and balanced approach to managing Vermont's forests.

Over the past five years, FPR has made significant progress towards our Desired Future Conditions and in meeting the actions identified in the Plan, as highlighted in this document. While there have been tremendous accomplishments, much work lies ahead as we continue to meet existing and new challenges and threats to our forest.

We look forward to continuing to implement the Plan with partners and stakeholders – it takes an all-hands-on-deck approach that will be ongoing.

FIVE YEAR ACCOMPLISHMENTS

Accomplishments are organized by Vermont's 2017 Forest Action Plan's Desired Future Conditions. Each accomplishment is tagged with one or more of the three broad categories of Forest Service's State and Private Forestry national priorities to highlight where alignment exists. The programs evaluated in the accomplishments report include Forest Health, Wildland Fire, Urban and Community Forestry, Forest Stewardship, Forest Economy, Forest Legacy, Climate Forestry, and Conservation Education. While this is not a comprehensive list, it does highlight the breadth and diversity of accomplishments for the past five years.

National State and Private Forestry Priorities

- **CONSERVE** and manage working forest landscapes for multiple uses and value,
- **PROTECT** forests from threats, and
- **ENHANCE** the public benefits from trees and forests.

DESIRED FUTURE CONDITION 1: BIOLOGICAL DIVERSITY

Conserve biological diversity across all landscapes.

- Led and completed the USFS Landscape Scale Restoration (LSR) project *Forests for the People*. We engaged ten selected communities in a robust planning process to develop action-based town forest recreation plans. The planning model included public visioning sessions, needs assessments, facilitated walks in the forests, and a final plan that provided actionable strategies to assist communities in taking the next steps. Additionally, we developed the online [Town Forest Recreation Planning Toolkit](#), which provides all the resources needed to replicate this planning process in other communities. With the help of this toolkit, our goal is to support sustainable, forest-based recreation in town forests statewide.
CONSERVE, ENHANCE
- Led and completed the LSR project *Planning for Forest Integrity*. Coordinated a robust team of partners (UVM's Forest Ecosystem Monitoring Cooperative, the Vermont Natural Resources Council, the Central Vermont Regional Planning Commission, VT Fish & Wildlife Department's Community Wildlife Program, and the Agency of Natural Resources' Planning Office) to guide Act 171, which amended Vermont Planning Statutes to encourage and allow municipalities to address protection of forest blocks and habitat connectors while supporting the local forest products industry. Among many other things, the project facilitated the development of the Act 171 Guidance and the anr.vermont.gov/forestplanning webpage with helpful resources, updated the Agency of Natural Resources' BioFinder database and mapping tool to support stewardship, conservation, and land-use planning, and provided direct technical assistance in complying with the Act 171 requirements to over 35 Vermont municipalities. The [Forests Matter Video Series](#) was also created through the project to highlight the 5-step process to plan for forest integrity at the municipal level.
CONSERVE, PROTECT

- Lead and completed the LSR project *Cultivating a Community of Forest Stewards: Invasive Plant Management through Volunteer Engagement & Support*. Activities were focused in two Regional Landscapes with a goal of disseminating knowledge and technical expertise to a broad population through the region. The project educated students, and citizen scientists empowering them and educating them in the field of NNIP. This project pulled together state and federal partners to provide technical expertise, curriculum evaluation and participants. Deliverables include: 40 Community Volunteers Trained, 5 State professionals trained in strike team model, 50 Agency staff trained to use database, 285 acres of public land inventoried for NNIP by trained state professionals, 10 outreach kits tested and evaluated by Interpretive Naturalists (FPR staff), 12 outreach kits developed, [20 NNIP factsheets created](#), 30 contributions to mapping project for towns through use of outreach kit, 10 workday projects utilizing field tool loan program, 10 workdays or talks conducted by trained volunteers, 11 newsletters or events for volunteer engagement/continuing education to support outreach in communities, 210 acres of sensitive land managed by trained state professionals, 3,500 acres of sensitive land protected by strike team model, 4 organizations create and/or update NNIP management plans, 4 evaluations of NNIP management plan template provided by organizations, 5 Agency annual stewardship plans that utilize state database.
 - [Curriculum and School volunteer training model, and resources](#)
 - [Community volunteer network, and network resources](#)
 - [Community volunteer model and resources](#)
 - [Tool & Outreach Kit “loan library” and resources for volunteer network](#)
 - [Community science mapping project](#)

CONSERVE, PROTECT

- Updated [Vermont Tree Selection Guide](#) and released a 2nd edition, which includes a list of principles for tree planting in Vermont, a more comprehensive list of resources for sourcing and planting trees for different purposes, and a refined list of recommended tree species based on availability, limitations, and successful establishment in the state. With support from the Vermont Chapter of the American Society of Landscape Architects, 150 print copies were produced and distributed, and the online Tree Selection Tool and PDF guide were updated.

CONSERVE

- Engaged with other departments across the Agency of Natural Resources in comprehensive planning and strategic acquisition, leading to 88,547 acres of land under newly developed comprehensive long range management plans and 8,153 acres of State Forests, State Parks and Wildlife Management Areas added to state ownership over the last five years. One of many highlights is the completion of an unofficial but significant southern Green Mountain wildlife corridor with an acquisition adding to Okemo State Forest and a new adjacent Wildlife Management Area. These acquisitions have created a continuous string of conserved lands between the northern and southern Green Mountain National Forest and from Coolidge State Forest to Okemo State Forest.

CONSERVE, PROTECT

- Supported a range of research projects on state lands and regularly produced educational opportunities and materials for students and the public about forest management, stewardship, and historic

resources. Issued 90 research licenses on state lands across various topics such as climate change and adaptation, migratory bird habitat, and nutrient cycling studies.

CONSERVE

- FPR collaborated with UVM, Vermont Land Trust, UMass Amherst to refine the [Restoring Old Growth Forest Characteristics](#) publication. More than 80 foresters attended workshops on the topic in 2022 and nearly 800 copies of the publication have been distributed to landowners and consulting foresters.

CONSERVE, ENHANCE

- Developed a Hemlock Conservation Plan for maintaining hemlock in Vermont.

PROTECT

- Conducted forest health survey and monitoring efforts:
 - Partnered with neighboring states to identify areas in the region with declining eastern white pine (EWP) health; monitored EWP health and maintained the species' presence in the state.
 - Established red pine monitoring plots to understand stressors and their impact on red pine health in Vermont.
 - Established balsam woolly adelgid monitoring plot to understand balsam fir decline and mortality.
 - All data collected for monitoring and surveying is shared and available through Forest Ecosystem Monitoring (FEMC) website.
 - Participated in statewide Urban FIA program.
 - Support citizen scientists' engagement in forest pest and invasive plant work.

PROTECT

- Entered over 18,425 acres into the Forest Legacy Program (FLP), placing permanent legal protections on 17 high-priority forest parcels to ensure protection from conversion to a non-forest use. Several parcels conserved through the FLP in the five years are located within high-priority forest connectivity blocks. EG, six parcels are located within the Worcester to Kingdom wildlife corridor, a focus area for conservation in the state. All properties entered into the FLP must be managed under a Forest Stewardship Plan to ensure the long-term. In addition, all FLP properties provide perpetual public access rights for dispersed recreational use, guaranteeing the conserved forestland properties are open to the public for hunting, hiking, fishing, and other important recreational uses.

CONSERVE, PROTECT, ENHANCE

DESIRED FUTURE CONDITION 2: FOREST HEALTH AND PRODUCTIVITY

Maintain and enhance forest ecosystem health and ecological productivity.

- Analyzed forest carbon data for Vermont and compiled the [Vermont Forest Carbon Inventory](#). This inventory was then incorporated into [A Carbon Budget for Vermont](#), which compiled data on all Natural and Working Land carbon fluxes and compared these fluxes to statewide greenhouse gas emissions.

PROTECT, ENHANCE

- In response to the initial discovery of emerald ash borer (EAB) in 2018, we worked with the Agency of Natural Resources GIS team to develop the [Rural Roadside Ash Inventory Tool](#) to support municipal efforts to inventory ash trees within the public right-of-way on rural roads and facilitate better planning for the impacts of EAB. Staff train volunteers on how to use the tool, which uses ArcGIS Field Maps, provide loaner iPads for data collection, are available for technical support, and can assist municipal staff and volunteers in interpreting and utilizing the data for decision-making. Since 2018, over 50 towns have inventoried over 61,000 ash trees along rural roads using the tool.

PROTECT

- The [Vermont Forest Pest First Detectors Program](#) (FPFD) has been primarily focused since 2014 on EAB, Asian long-horned beetle, and hemlock wooly adelgid (HWA). In recent years, the program has broadened to include other invasive pests likely to be established in Vermont soon, such as spotted lanternfly and common vectors, such as moving firewood. In 2022, we partnered with the Vermont Agency of Agriculture, Food & Markets, Vermont Fish & Wildlife Department, Audubon Vermont, and the Vermont Center for Ecostudies to transition the previously in-person FPFD course to an eight-week online training course with a new focus audience of birding enthusiasts. One hundred and fifteen people from seventy-two Vermont municipalities, five other states and Montreal registered for the course, which included three field trips (one monitoring for HWA, one looking at forest management practices for birds and forest health; and one visiting an EAB biocontrol release site). The course also included six live webinars. In addition, all course participants have access to educational materials for their community education efforts. Thirty-three participants volunteered to become long-term FPFDs and will be monitoring pests and educating others in 24 municipalities in Vermont and two towns in NH.

PROTECT

- Released [a suite of case studies](#) about how municipalities have and are managing EAB here in Vermont and beyond; there are 9 case studies available and additional case studies are in development.

PROTECT

- Created four visually engaging interpretive signs about native ash trees, EAB's impact on the species, and identification of both ash and EAB for use on trails at museums and nature centers. The signs are moveable and have been displayed at the North Branch Nature Center, the Southern Vermont Natural History Museum, the Birds of Vermont Museum, and the Johnson Arboretum.

PROTECT

- Conducted annual forest health monitoring efforts:
 - Monitored and collected data on tree condition and stand disturbance on 30 North American Maple Project plots.
 - Monitored and report on the health of EWP in Vermont and the region. Evaluate over 100 plots region-wide (22 in Vermont) and collect data on site conditions and other contributing factors to EWP decline.
 - Hemlock Wooly Adelgid (HWA) detection and monitoring for range expansion and impact.

- Monitored sites where HWA bio-controls have been released.
- Assessed winter mortality of HWA at four sites.
- Monitored sites where EAB bio-controls have been released.
- Monitored for pear thrips at one location.
- Established and monitored sites for beech leaf disease at eight locations.
- Conducted aerial surveys to identify and map forest health impacts.
- Monitored invasive plant phenology in 5 locations.
- Spongy moth egg mass evaluations are completed on nine banded plots.
- Forest tent caterpillar pheromone trap clusters are deployed at thirteen sites.
- Spruce budworm surveys with pheromone trap clusters are completed at seven sites.
- Tree condition was evaluated at four white pine needle cast impact sites.
- Saddled prominent surveys with pheromone trap clusters are completed at nine sites annually. Respond to inquiries regarding oak health, looking for Oak Wilt and other pathogens.
- Respond to inquiries regarding beech health looking for Beech Leaf Disease.
- Twenty-seven sites were inspected for HWA and EHS presence in nineteen towns.
PROTECT
- Provided regular information about forest health conditions published here: [Forest Health Issues and Updates](#)
 - Provided pest related updates monthly from April through September.
 - Provided annual summary of insect and disease presence in Vermont.
 - Provided professional presentations through in-person, webinars, and recorded presentations.
 - Maintained and contribute to [VTinvasive.org](#) website content.
 - Provided updated information to affected constituents about pest populations.
PROTECT
- A cataloged insect collection is now available through direct inquiry to the Forest Biology Lab.
- Worked with state and regional partners to develop Pest Action Plans for EAB, Asian long-horned beetle, spotted lantern fly and other pests of statewide concern.
PROTECT
- Partnered in Vermont's emergency response, providing trained wildland firefighters and sawyers. Maintained qualified staff prepared to respond as wildland firefighters and sawyers—updated emergency response procedures.
PROTECT
- Participated in State Emergency Operations Center (SEOC) drills, exercises, and training to maintain qualifications and ability to respond. Participated at the SEOC during 2 weather events and developed roster for a response.
PROTECT

- Participated in regional EDRR trapping efforts supported by the USFS.
PROTECT
- Monitored for EAB and provided information to constituents to slow the spread.
PROTECT
- Maintained a firewood quarantine which only allows heat-treated firewood to enter the state.
PROTECT
- Used various tools to maintain productive forests with native flora and fauna. Dozens of vegetation management projects involving mast tree release, stand improvement, and habitat improvement have been conducted during the time period, and timber sales have been used to rehabilitate stands, improve current and promote future forest structure, enhance or create wildlife habitat, and manage invasive species on state lands leading to 4,593 acres treated over the reporting period while offering 48,039 total cords of volume to support the local forest products economy.
CONSERVE, PROTECT, ENHANCE
- Conducted regular monitoring and mapping of invasive plants and treatment application on hundreds of acres each year to promote native vegetation, limit spread and promote wildlife habitat. A significant example at the beginning of the reporting period was the implementation of a Habitat Restoration Crew in southwestern Vermont focused on invasive species mitigation, outreach and capacity building, yielding engagement with hundreds of volunteers and thousands of contributed hours.
PROTECT

DESIRED FUTURE CONDITION 3: FOREST PRODUCTS AND ECOSYSTEM SERVICES

Maintain and enhance forest contribution to ecosystem services.

- Provided staff support to [Vermont Working Lands Enterprise Initiative](#), which annually distributes grant funds to working lands businesses and service providers.
ENHANCE
- Established and supported (with partners) [Vermont Workers' Compensation \(WC\) Safety Program](#) to provide safety training and job-site follow-up visits to logging contractors. Safety Certified individuals are eligible for a 15% decrease in WC premiums. Training included Mechanized Logger Safety, Supervising for Safety, Advanced logger safety, and Annual safety refreshers.
CONSERVE
- Participated in Logger Education to Advance Professionalism (LEAP) board of directors and provided trainers for LEAP workshops. Training included: Forest Ecosystem Management, Professionalism, Log Bucking and Defect ID.
CONSERVE

- Cooperated on several projects to promote and demonstrate mass timber building applications, including a North East State Foresters Association (NEFA) project utilizing native hemlock lumber.
ENHANCE
- Utilizing Wood Innovations grant (WIG) funding, established and maintained a Wood Energy Coordinator Position to provide statewide wood energy networking and promotion of wood heat.
ENHANCE
- With WIG funding, provided wood heat grants for new construction and to schools to replace, repair and update existing systems in order to keep them viable, in use, and to increase efficiency.
ENHANCE
- In partnership with the Biomass Energy Resource Center, utilized USDA Rural Development Grant to promote wood heat to small businesses around the state. Services include desktop screenings and comprehensive feasibility studies of wood heating options.
ENHANCE
- Led and completed the USFS LSR Project *Resilient Right-of-Ways*. The project led ten priority urban towns and ten priority rural towns in a collaborative and integrated approach to advance forests, individual trees, and other vegetation in roadside environments as part of a larger ecosystem of roadside vegetation. For the urban towns, we partnered with the Vermont League of Cities and Towns and a consulting landscape design and graphic design professional to increase municipal capacity to support green stormwater infrastructure by conducting reviews of municipal bylaws and public works specifications and creating photo simulations to highlight the potential aesthetic impact of green infrastructure elements at specific locations in the municipality. For the rural towns, we conducted rural roadside vegetation assessments, developed action plans, and refined recommended best management practices to create and maintain healthy tree canopies, diverse plant habitats, and safe and beautiful roads. Through the project, the [Vermont Green Streets Guide](#) and the [Resilient Right-of-Ways Guide](#) were developed.
ENHANCE
- Initiated the Vermont Fruit and Nut Tree Grant Program, a partnership with the Vermont Garden Network. The mini-grant program is intended to support the purchase and successful planting and care of fruit and nut trees and shrubs for community growing sites across Vermont. Site locations included schools, affordable housing communities, non-profits, community gardens, educational centers, a food co-op, and a library. These locations supported people of all ages and backgrounds to grow food, learn about their natural environment, and connect with their neighbors. In its first year, there were 20 grantee groups at 54 community growing sites across the state; more than 580 individuals and over 1,750 volunteer hours made planting an estimated 515 fruit and nut trees and shrubs possible.
ENHANCE
- Contributed to the [Vermont Climate Assessment](#)'s chapter on forests with a new section on urban forests and climate change. Staff worked with FPR's Climate Forester to develop the text.
PROTECT, ENHANCE

- Established the [Vermont Community Canopy Program](#), run in partnership with the Arbor Day Foundation. This program offers free trees to community members to plant on private property and provides guidance on tree placement to maximize tree benefits, such as shading, cooling, and wind-blocking. With at least two rounds of the program each year, we have now given away 2,835 trees to 1,641 Vermonters. Partners have included non-profits and municipalities, and we look forward to expanding this program to school networks. In addition to reaching students and families in underserved audiences, partnering with schools allows us to expand educational opportunities from working with teachers to tree planting and maintenance demonstrations.

ENHANCE

- Monitored weather and fire danger daily through fire season (March-November) to inform constituents of potential fire danger. Look for trends in a climate that affect fire weather that may indicate a need for more preparedness.

PROTECT

- The State owns over 650 miles of forest roads on state lands, and erosion control in the form of road upgrades, closures and maintenance has been a key focus for addressing water quality improvement goals in the state. Some highlights include:
 - Significant upgrades to the Cotton Brook Road in Mt. Mansfield State Forest, including installation of 43 culverts and the replacement of a bridge, and closure of a side trail including bridge removal.
 - Upgraded four sites at Okemo, Proctor Piper, and Coolidge State Forests to install properly sized culverts, new bridges, and in-stream crossings structures updated to modern flood standards.
 - Completion of dozens of smaller projects that implement Acceptable Management Practices to protect water quality through culvert upsizing and repair, crossing removals or repairs, disconnecting from streams, and preparing infrastructure for future changes in precipitation patterns.

ENHANCE

- Worked with Agency and community partners to maintain a network of recreational trails that stands at 592 miles and has supported that network through dozens of trailheads, trails, parking areas, and interpretive improvement projects. Some highlights include:
 - Eleven formal partnership agreements are in place with recreation and land management organizations to partner on state lands recreation projects and stewardship.
 - Significant investment in a parking, trail, and rehabilitation project on the south end of Lake Willoughby in Willoughby State Forest addressing user pressures, resource degradation, and public access in a heavily visited place on state land through parking area improvements, universally accessible boat ramp installation, and additional trail improvements.
 - Rehabilitation of the Nature Center in Groton State Forest serving several state parks and the visiting public.
 - Major reconstruction of the Mt. Philo Summit Trail following significant public engagement and scoping to increase accessibility and reduce erosion issues.

- Initiated a three-year top-to-bottom rehabilitation of the Burrows Trail on Camel's Hump, one of the most popular trails in the state, in collaboration with Green Mountain Club. On-the-ground work engaged key partners, including Vermont Youth Conservation Corps, Northwoods Stewardship Center, and the National Civilian Conservation Corps.
- Installation of an additional 3000' of universally accessible trail to the Camp Smith Trail network on Mt. Mansfield State Forest, including the design and fabrication of 17 interpretive panels and 42 site place markers to aid public engagement with the history of the area including work by the Civilian Conservation Corps.
- Comprehensive assessment of eight publicly accessible fire towers on State Land to design and plan for additional safety features while maintaining historical integrity.
- Stone staircase installation at Twenty Foot Hole to provide safe and erosion-free access to a popular swimming hole and nature site in Reading.

ENHANCE

- Delivered twelve skidder bridges to loggers. Worked with the contractor to build the bridges to specifications and coordinated the lottery process and the pick-up by the bridge winners. Offered cost share to purchase temporary bridges for loggers and foresters. Developed a temporary truck bridge rental program for five steel bridges.

PROTECT

- Conducted nearly 200 site visits to support implementation of water quality practices on logging jobs.

CONSERVE, PROTECT

- Developed a [mobile app](#) to support implementation of water quality practices on logging jobs. The app provides loggers and foresters with quick access to guidance and requirements for water quality practices and tools to support their implementation including a clinometer, mapping and cost calculation tools.

CONSERVE, PROTECT

- Supported the development of, reviewed, and approved nearly 10,000 forest management plans to satisfy eligibility requirements of Use Value Appraisal and to prescribe silviculturally sound management for forest products.

CONSERVE, PROTECT, ENHANCE

DESIRED FUTURE CONDITION 4: LAND ETHIC

Maintain and enhance an ethic of respect for the land, sustainable use, and exemplary management.

- Created and delivered a three-part online forest carbon science and management training for state and private land and consulting foresters in Vermont.

PROTECT, ENHANCE

- Created [12 Steps to Climate Resilience: Managing your Forest with Climate Change in Mind](#) with Vermont Woodlands Association and UVM Extension, which includes easy to use pocket cards and a longer document with resource links that helps landowners consider forest restoration, biodiversity, and tree species diversity and structural complexity in their forest management.
PROTECT, ENHANCE
- Collaborated with Vermont Covertsand launched a podcast called [Heartwood](#). Heartwood aims to connect Vermonters to our forests, forest management, and the forest economy and features stories from landowners, forestry professionals, and wood products producers on a range of topics, including their relationship to the land and the impact of changes like invasive forests pest to our forests. There are currently seven episodes.
ENHANCE
- Since 2017 the [Vermont Backyard Woods Course](#) has been taken by 464 participants. The course is designed for homeowners with less than 25 acres who want to learn more about the woods in their backyard: what's in it, who (wildlife) uses it, and how they can become better caretakers of it. Staff offered the self-paced course at least once a year, with both online and optional in-person components.
CONSERVE, PROTECT, ENHANCE
- Normal Arbor Day programming, including our annual VT Arbor Day Conference, was canceled during the pandemic. To adapt in 2021 we partnered with the Vermont Department of Libraries to offer Arbor Day Celebration kits to 66 libraries statewide. The kits included scavenger hunts, tree ID handouts, craft ideas, tree benefits activity and sugar maple seed kits and the feedback from participants was very positive. As a result, staff replicated the program in 2022 and 50 kits were distributed.
ENHANCE
- Reinvigorated and updated the [Vermont Big Trees Program](#) throughout 2021 and 2022. The old Big Trees database was outdated, and most of the existing 145 State champion and co-champion trees on the list had not been remeasured in at least a decade. Many records lacked accurate location information and contact information for the landowner or original submission contact. Led a coordinated effort to revisit and remeasure trees using an ArcGIS Survey 123 form to log the location and information on the trees. Based on the ability to locate the trees, contact landowners, etc., there are now just over 77 trees remeasured and on the updated list and about 40 vacant tree species to fill. Staff worked with the Agency of Natural Resource's IT team to create a searchable, sortable online database and map, now available on the [Big Trees webpage](#).
CONSERVE, ENHANCE
- Continued conservation education efforts, including:
 - 193,000 people participated in interpretive programs across Vermont in State Parks and State Forests. These are hands-on, inspirational lessons and activities connecting people of all ages to the resources of our forested landscape.
 - 120 teachers participated in 2-to-15 hour-long Project Learning Tree professional development experiences. These workshops help teachers use forests as tools in their teaching.
 - 4,735 Vermont students in grades preschool through twelve learned about trees and forests through Project Learning Tree lessons taught in their classrooms and town forests in their communities.

- 2,210 students in grades kindergarten through eighth across Vermont celebrated Arbor Day by participating in the [Growing Works of Art contest](#), which includes studying trees in their communities, writing essays, and creating artwork based on the Arbor Day theme of the year.
- Assisted 3,274, educated 8,477, and supported the development of 1,043 stewardship plans for private forestland owners.

CONSERVE, **PROTECT**, **ENHANCE**



Youth engaging in conservation education programming.

DESIRED FUTURE CONDITION 5: LEGAL, INSTITUTIONAL, AND ECOLOGICAL FRAMEWORK

Vermont has a legal, institutional, and economic framework in place for forest conservation and sustainability.

- Staff participated in professional development opportunities through online training, in-person training, webinars, and other coursework.
CONSERVE, **PROTECT**, **ENHANCE**
- In 2020, the Vermont tree warden statutes were updated after not being amended in over 50 years. We contracted the Vermont League of Cities and Towns' Municipal Assistance Center to support tree warden resource development and training, including a new [Tree Law webpage](#) and a [Tree Warden FAQ](#), as well as two virtual training for municipal staff and tree wardens. Worked with the Agency of Natural Resource's IT department to develop an [online reporting "button"](#) (form) on our websites to feed into our growing tree warden database. Certification of tree warden by each municipality is now required by statute, and so far, over 150 towns have reported. Developed and ran a new self-guided online course called [Tree Warden School](#), run at least once a year with 94 participants to date. And finally, staff have worked with 12 pilot municipalities to draft municipal shade tree preservation plans, a new optional

component of the state legislation that allows local expansion of tree warden responsibilities, among other things.

PROTECT, ENHANCE

- Secured additional funding through the USFS *State Urban Forest Resilience* grant opportunities to better support Vermont municipalities in managing the impacts of emerald ash borer. In 2020, we were able to provide three \$15,000 grants (\$45,000 total) for ash removals and replanting efforts, in 2021, seven ash tree management projects at a total amount of \$55,000, and in 2022 seven projects focused on replacing removed ash/growing urban forests for a total of \$60,000.

PROTECT

- Throughout 2020, the Urban and Community Forestry Program (UCF) staff and Advisory Council members engaged in collaboratively updating the program's [5-year strategic action plan](#), which aligns directly with the Vermont State Forest Action Plan. Program staff reports against the Plan each quarter before our Council meetings.

CONSERVE, PROTECT, ENHANCE

- In 2020, the UCF began to thoughtfully and strategically engage in issues of justice, equity, diversity, and inclusion (JEDI). Since then, staff have updated measurable goals for the program to approach over the short- and long-term, developed a logic model support tracking program work around JEDI issues, and adopted program-wide [guiding principles towards justice, equity, diversity, and inclusion](#).

CONSERVE, PROTECT, ENHANCE

- Completed an internal AMP Complaint Review Procedure and presented "AMP calibration training" for staff. All FPR foresters attended the training, including presentations from the Watershed Forester, a Stream Alteration Engineer, and a Wetlands Ecologist. The goal of the training was to bring department personnel up to speed on the new AMPs, and the new AMP Complaint Review Procedure and to calibrate decision-making in a field-based setting.

PROTECT

- Processed and approved approximately 40 heavy cut applications per year.

PROTECT

- Supported the licensing of over forty FPR staff.

CONSERVE, PROTECT, ENHANCE

- Expanded the Use Value Appraisal program to include an enrollment category in which parcels could be eligible when managed for old forest functions and values in addition to the current requirement that enrolled forestland parcels be managed for sawtimber. The new enrollment category, called Reserve Forestland is available to some but not all parcels and thus helps maintain the purposes of the program to support working lands while also supporting expansion of old forests in Vermont.

CONSERVE, PROTECT, ENHANCE

- In 2020 and 2021 administration of the Use Value Appraisal program transitioned to reliance on electronic records. This required digitization of 16,000 forest management plans and associated maps and updating of related record management systems.

CONSERVE, PROTECT, ENHANCE

- Developed organizational improvement plan that led to a strategic realignment, enhanced communication tools, updated policies and procedures, staff reclassification, and better coordination of operational needs.

CONSERVE, **PROTECT**, **ENHANCE**