

2016-18 Executive Progress Report

Commonwealth of Virginia
Secretary of Agriculture and Forestry
Department of Forestry

At A Glance

The mission of the Department of Forestry (DOF) is to protect and develop healthy, sustainable forest resources for Virginians.

Staffing 233 Salaried Employees, 0 Contracted Employees, 287 Authorized, and 347 Wage Employees.

Financials Budget FY 2017, \$31.63 million, 56.47% from the General Fund.

Trends

↑ Demand for Tree Seedlings	Key Perf Areas	↑ Water Quality
↑ Demand for Forest Products		↑ Wildfire Response
↑ Forest Conservation Efforts		↑ Reforestation of Timberlands

Legend

↑ Increase, ↓ Decrease, → Steady	Productivity Legend	↑ Improving, ↓ Worsening, → Maintaining
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For more information on administrative key, and productivity measures, go to www.vaperforms.virginia.gov

Background and History

Agency Background Statement

The Virginia Department of Forestry (DOF) was established in 1914 to prevent and suppress forest fires and reforest bare lands. Since our inception, we have grown and evolved to encompass other duties including managing the forest resource, protecting Virginia's waters, conserving Virginia's forests, administering the state lands program, managing two nurseries, and administering incentive programs for forest landowners. The agency is headed by Bettina Ring who was appointed in 2014 to serve as the seventh state forester in Virginia.

During the last two years, DOF has reorganized field operations, consolidated offices, become more mobile, developed specialized IT products and reduced staff as budgets have shrunk; forest industry has divested lands; more and more people have become forest landowners; generational shifts in land ownership are occurring; concerns regarding the sustainability of natural resources increase; emphasis on ecosystem services and the vital role forests play with regards to water quality and quantity grow; federal support decreases, and the emphasis on partnerships and grant opportunities expands.

Our first one hundred years was marked by forest fires and suppression, forest harvesting and reforestation, and the building of a strong forest products industry ranked third in Virginia's economy. Our second century started with excitement and challenges. The future will continue to encompass these critical services which will drive our economy and protect our environment well beyond the next 100 years.

Major Products and Services

Forestry is a significant economic engine that provides employment for more than 103,000 Virginians and has an annual impact of \$17 billion to the state's economy – and when combined with Agriculture, it is the largest industry in the Commonwealth. Protecting and enhancing the 15.8 million acres of forestland and serving the 405,000 landowners who control 62 percent of the forestland are 233 dedicated professionals – 155 of whom are first responders – at the Virginia Department of Forestry.

In Fiscal Year 2016 through fire prevention and fire suppression efforts, DOF protected over 1,600 homes and other structures with a total value of \$100 million. This is accomplished with a fleet of 10 specially equipped wildland brush trucks, 89 dozer/transport units and 160 fire pickup trucks located across the Commonwealth.

The Department of Forestry grows and sells over 32 million tree seedlings each year so that harvested tracts are replanted to become the forests of tomorrow. The Agency ensures that millions of dollars of state and federal cost-share funds get into the hands of landowners who are actively

managing their properties. We provide opportunities for private sector entities, such as forestry consultants, planters, spray contractors, etc., who work with landowners to ensure more beneficial work gets done each year. Educational efforts ensure landowners know how to properly grow and care for their trees, and that they are able to successfully pass their property to the next generation. And urban and community forestry reduces costs for homeowners and governments alike by preventing pollution and runoff, which results in less treatment of drinking water, and moderating temperatures so air conditioners run less.

The Virginia Department of Forestry monitored 5,163 timber harvests to ensure voluntary best management practices are working for the benefit of all. The inspections conducted by DOF water quality specialists demonstrate a very high compliance rate among the loggers. New and refocused assistance programs are emphasizing the critical role forests play in the health of the Bay and all those who rely on or use this treasured place. By providing valuable, unbiased, third-party, scientifically based technical assessments and recommendations, DOF directly impacts the success of Virginia landowners who strive to sustainably manage their forest resources for the greatest possible economic gain.

In addition to emergency response, forest management, and water quality, DOF has a number of other products and services that contribute to the Agency's successful efforts to protect and serve all Virginians. From the 24 State Forests, which, at no cost to the taxpayer, provide abundant recreational opportunities, demonstrate the benefits of good forest management and financially support the communities in which they exist by returning up to 25 percent of the proceeds from timber sales, to our land conservation efforts, which ensure working forestland remains working forestland, to our work in the forest health realm where we identify harmful insects and diseases as well as invasive species to prevent forest loss and economic harm.

Customers

Customer Summary

At first glance, it might appear that our customer base is relatively small and less significant than it really is. But look more closely and you soon realize that every Virginian is our customer. Anyone who uses wood is a customer. Anyone who grows a tree or owns forestland is a customer. Anyone who hunts, fishes, traps, mountain bikes, hikes or bird watches is a customer. Anyone who gazes into a forest is a customer. And every person who drinks water or breathes air is our customer. We touch them all in one way or another. Unfortunately, many people don't quite make the connection between themselves and the forest resource.

Customer Table

Predefined Group	User Defined Group	Number Served Annually	Potential Number of Annual Customers	Projected Customer Trend
Volunteer	Volunteer Fire Departments	712	768	Increase
Employer/ Business Owner	Forest Industry & Associated Businesses	2,500	15,000	Increase
Employer/ Business Owner	Harvest professionals	300	5,000	Increase
Farm/Forest Owner	Private forest landowners	4,000	405,000	Increase
Non-Profit Agency (Boards/Foundations),	Non-Governmental Organizations	26	60	Increase
Recreationalist	General Public	4,000	300,000	Increase
Resident	General Public	500,000	8,000,000	Increase

Finance and Performance Management

Finance

Financial Summary

Forestry receives funding from general fund appropriations, special revenue funds, federal grants and a trust fund. General fund dollars are received for two of our four service areas: Reforestation Incentives to Private Forest Land Owners and Forest Conservation, Wildfire and Watershed Services. Special revenue funds consist of revenue generated through seedling sales, timber sales, fire suppression services, professional forestry services and forest products taxes. Federal grants are received for specific projects within our mission to protect and develop healthy, sustainable forest resources. The trust fund exclusively funds the Matthews State Forest in Grayson County, a site of exciting improvements for the general public to enjoy.

The majority of the funding received for DOF is for personnel and equipment. DOF employees are stewards of the forestland and all field personnel are highly trained in forestry practices and fire fighting. Funding the rotation of bulldozer and transport units to ensure public safety and keeping up with technological advancements are DOF's most pressing financial challenges. 41 dozer units will be replaced in the 2016-18 biennium, some of which are almost 30 years old and far exceed our ideal rotation schedule of 20 years. In addition, information technology expenditures now consume more than 10 percent of the Agency's operating budget, and we expect that figure to grow even more in the coming years just to maintain the existing infrastructure. And the question persists as to how we can increase our use of – and pay for – new technology to provide more and better services to our citizens in a time of shrinking resources. Several of our rural offices still have limited or no Internet access, when all require broadband to communicate and effectively serve Virginia's citizens.

Fund Sources

Fund Code	Fund Name	FY 2017	FY 2018
0100	General Fund	\$17,860,031	\$18,383,948
0200	Special	\$2,789,242	\$2,790,154
0212	Forest Mgm'T Of State Owned Lands	\$35,000	\$60,000
0216	Land Preservation Fund	\$64,563	\$89,563
0218	Fire Programs Fund	\$100,000	\$150,000
0234	Reforestation Incentives Fund	\$1,843,210	\$2,343,210
0251	Nurseries Fund	\$2,059,286	\$2,559,286
0264	State Forest Fund	\$1,601,924	\$1,851,924
0280	Appropriated Indirect Cost Recoveries	\$300,000	\$300,000
0700	Trust And Agency	\$106,538	\$106,538
0901	State Forests System Fund	\$34,535	\$34,535
0926	Va Forest Water Quality Fund	\$40,000	\$40,000
0959	Long Term Mitigation Fund	\$15,000	\$15,000
1000	Federal Trust	\$4,775,699	\$4,790,153

Revenue Summary

DOF revenue collections are received from a variety of federal and non-federal sources. Cooperative Forestry Assistance at \$3 million is a federal source of funding from the United States Forest Service. The non-federal sources of revenue earned by DOF are just as sensitive to the economy. Forest Products Tax at \$2.5 million is a state tax paid by the forest products industry and is up four percent from the prior year, which indicates a rise in timber harvesting. This forest products industry drives seedling sales; DOF seedling sales are at \$2.3 million, which is up ten percent from the prior year. DOF seedlings are of exceptional quality grown from seed from state-owned tree orchards for reforestation purposes. State Forest lands and tree seedling nurseries are considered special revenue operations and receive no general fund support. DOF supports all management of State Forest and Nursery properties through revenues generated from timber harvests, forest use permits, and the sales of seedlings.

Performance

Performance Highlights

National Leader in Wildfire Suppression: DOF is a recognized national leader in the delivery of wildfire suppression services, incident management, and personnel development training for emergency responders. The Interagency Wildfire Academy is one of the four largest in the nation and has provided training to more than 892 firefighter students representing more than 11,000 staff hours of total training.

Nationally-recognized Firewise Program: The main goal of Firewise is to educate homeowners in the wildland/urban interface on how to design, construct, landscape and maintain their homes and property to avoid destruction during a wildfire. DOF has been a leader nationally in the promotion and expansion of the Firewise Program.

Award-winning Succession Planning Workshops: VDOF, in collaboration with Virginia Cooperative Extension and other public and private partners, delivered the fifth offering of *Focusing on Land Transfer to Generation "NEXT"*. The in-depth course provides families the information needed to ensure a smooth intergenerational transfer of their property and ensure continued management of their forest resources, keeping critical forestlands intact. As a result of the workshops, almost 52,000 acres of land is expected to remain forested and "family owned".

Clean Drinking Water: The DOF water quality program has been touted as the leading water quality program in the South. DOF is the leader in the statewide logging inspection audit program in the South and is supporting a Southeastern Regional attempt to provide consistent auditing of logging jobs across state boundaries.

High-quality Seedlings: Two DOF forest tree seedling nurseries produce approximately 32 million softwood and hardwood tree seedlings for reforestation and general conservation. Seedlings are available for sale to private landowners and industry owners to help with their reforestation needs and providing future forest products' raw materials.

Improved Quality of Life for Urban Communities: DOF developed an important program to determine a community's Urban Tree Canopy (UTC), the layer of leaves, branches and stems of trees that cover the ground when viewed from above. UTC provides many benefits to communities including improving water quality, conserving energy, lowering city temperatures, reducing air pollution, enhancing property values, providing wildlife habitat, facilitating social and educational opportunities, and providing aesthetic benefits.

Longleaf Pine Being Restored in Virginia: DOF is highly engaged in restoring native longleaf pine to the landscape of southeast Virginia, which had been nearly exterminated over time. Significant accomplishments include: harvesting cones from the last remaining longleaf stand,

producing seedlings, establishing a new seed orchard, addition of the new 266 acre South Quay State Forest, and collaborative work with others. Through this, longleaf pine has grown from only a few hundred trees to more than 4,000 acres.

Expanding Program Assistance for Private Forest Landowners due to Cooperation with Several Agencies and Organizations: The Virginia Reforestation of Timberlands program is rebounding due to emphasis from partners and an increasing trend in the Forest Products Tax revenue and Federal assistance for forestry. In addition, DOF involvement with USDA programs under the 2014 Farm Bill is increasing. DOF and the Department of Game and Inland Fisheries work together on forestry practices that improve quail habitat through work on private lands. In addition, DOF has partnered with several private organizations that have provided funding for tree planting, forest improvement and land conservation.

Innovative InFOREST: DOF and partner efforts to create a web-based application to provide the metrics for valuing the ecosystem services provided by forestland has culminated in the release of InFOREST. The newest version of InFOREST now provides the user with the ability to estimate carbon sequestration, air quality, nutrient and sediment loading, and the biodiversity provided by forest cover.

National Ranking: Virginia is one of four states, the others being California, New Jersey and Massachusetts, that are leading the nation in trying innovative approaches to reduce the rate of upland forestland conversion to non-forest use – an issue identified by the US Forest Service as a principal concern in the Southeast.

Conservation Easements Recorded: In 2016, DOF permanently protected 3,225 acres of open space through 17 conservation easements and another 23 acres in one amendment; the agency now holds 131 easements covering 36,818 acres. The DOF now holds easements in 50 counties and the City of Suffolk. The average DOF easement is just under 300 acres, of which 91% is forested.

Selected Measures

Measure ID	Measure	Alternative Name	Estimated Trend
41150103.001.003	Cost to conduct a forest harvest water quality inspection		Improving
41150103.001.001	Percentage of harvest sites with sediment not reaching streams.	Water Quality	Improving
M411SA12003	Percentage of wildfire responses that are 30 minutes or less.	Wildfire Response	Improving
411.0001	Number of acres funded by Reforestation of Timberlands Act financial incentives.	Reforestation of Timberlands	Improving
41150103.011.001	Number of acres protected from conversion to development.		Improving
411.0003	Statewide Best Management Practices implementation percentage		Improving

Key Risk Factors

Forest Resource Sustainability: As the economy continues to recover, the demand for timber will continue to increase. But, in addition to the traditional markets for wood products, new and expanding markets including bio-energy, ecosystem services and other specialty and non-forest products will add a new dimension to that demand. Even with genetically enhanced growth of up to 60 percent in loblolly pine, will this be sufficient to meet the growing demand? While our forest inventory analysis is a good tool, it too needs to be enhanced to provide better data and more precise forecasts that industry will require in the coming days. Without such improvements, we risk losing businesses up and down the forestry supply chain, and it will be increasingly difficult to attract new businesses and the economic benefits they generate.

Changes in Land Ownership: Much of Virginia’s forestland is in the hands of people who are either of retirement age or soon will be. A wave of intergenerational transfer of ownership has just begun and more, larger waves are on their way. DOF has had great success helping a few hundred forest landowners plan for this, but tens of thousands of landowners are left to either figure it out on their own or do nothing. We have 405,000 family forest owners who control the majority of Virginia’s forestland and 75% of the timber supply. 70% of this forestland is owned by the aging population and only 3% have some sort of succession plan in place for their forestland, placing a huge acreage of our forestland at risk from conversion and fragmentation in the next two decades. This situation almost guarantees that millions of acres of private forestland are at risk of being lost by the families who lovingly cared for the land for generations. In addition, more and more large tracts of forestland are being divided into smaller and smaller parcels, which increase the challenges associated with proper forest management.

Invasive Pests and Species: Invasive plants, such as tree of heaven and kudzu, are crowding out or killing a number of native species of trees. These invasive species are not desirable, in most cases, for use as forest products, so as they continue to expand and displace species that are in demand, the economic impact of forestry will suffer. In addition to the threats posed by invasive plants, invasive pests are negatively impacting hundreds of thousands of trees. The hemlock wooly adelgid is killing a large proportion of the hemlock trees in its range in Virginia. The emerald ash borer has already killed hundreds of acres of ash trees and has the potential to kill every single one of them. Gypsy moth, the European wood wasp and Southern pine beetle are just a few of the many other serious threats facing Virginia’s forests. The loss/eradication of several important tree species in Virginia would be catastrophic to forest landowners and to forest industry.

Agency Statistics

Statistics Summary

A summary of Department of Forestry accomplishments are listed in the table below. Unless otherwise noted, all statistics are based on

Statistics Table

Description	Value
Wildfires – homes and structures protected	1,615
Wildfire-related summons/warrants issued by Department of Forestry	79
Wildland firefighters trained by Department of Forestry	892
Harvest professionals trained by Department of Forestry	536
Timber harvest sites inspected by Department of Forestry in Calendar Year 2015	5,163
Water quality actions initiated by Department of Forestry	261
Water quality-related violations issued by Department of Forestry - safe drinking water is the goal	9
Tax credits issued in Calendar Year 2015 to Virginians electing to leave a streamside tree buffer	64
Conservation easements held by Department of Forestry – 36,000 acres protected against development	131
State forests – Virginians enjoy a plethora of recreational activities on 70,000 acres	24
Communities assisted by Department of Forestry with forest and/or tree resource management	119
Seedlings produced in Department of Forestry nurseries	30,000,000

Management Discussion

General Information About Ongoing Status of Agency

DOF has focused its services following continued budget cuts. We continue to work with forest landowners and forest product producers to ensure the forest resource is healthy and sufficient to meet demand. We work with landowners in the Chesapeake Bay watershed to plant forested buffers adjacent to the waterways that feed into the Bay. We identify communities at risk of wildland fire and work with them to create Firewise communities. In the past decade, our Land Conservation Division has secured over 130 conservation easements on nearly 37,000 acres of valuable forestland. Together we can ensure our working forests stay that way in perpetuity. We created the award-winning program Generation Next to teach forest landowners how to successfully pass ownership to a new generation of forest landowners. We honored those who have kept their land as working forestland – and in the family – for 100 years or more through our new Century Forest Program. We pioneered the successful cost-share program that makes pine forests less susceptible to Southern pine beetle through thinning operations on small tracts. We monitor the spread of invasive pests and advise landowners how to protect their valuable trees. And we take great care and perform as much preventative maintenance as possible to keep the fire plows/dozers mission ready.

More than anything, DOF must have a trained cadre of public safety professionals ready to answer the call 24 hours a day, 365 days a year. Whether the call goes out to suppress a wildfire or to assist in the removal of trees following a hurricane or ice storm, DOF’s 155 emergency responders stand ready to help.

In addition to the expanding traditional forest products industry, new demands are being placed on our utilization and marketing effort. Emerging markets for biomass energy, animal bedding, specialty and non-timber products and agro-forestry require that we become more adaptive, creative and flexible in our advice to landowners as they contemplate replanting after a harvest.

Information Technology

DOF is committed to using technology in the most effective/efficient manner possible. The most efficient way to bring the office needs to our employees is with fewer offices but more office space under the same roof to support a mobile work force. Personnel need a place to meet, plan their work, organize activities, train, house equipment and serve the public. Wireless technology is an important element, which is a challenge in rural areas such as the mountainous western region.

Most of DOF’s strategic planning is focused on keeping up with technological changes and external requirements through maintenance efforts. Existing information technology (IT) investments that require additional funding over the next six years are technology upgrades at work area offices, Integrated Forest Resource Information System (IFRIS) maintenance and operations, information security program, InFOREST maintenance and operations, and the development of the Reforestation of Timberlands cost-share system.

Changes to the DOF business environment as well as changes required by partner agencies and end-of-life technology (software, phones, operating system) affect the Agency’s IT environment. Windows Server 2003 end-of-life is being handled by several efforts to move existing systems to a more modern operating system including: DOF Intranet, IFRIS Upgrade Project, DOF SQL Test data move and decommission, and the Reforestation of Timberlands cost-share project along with the IMS server decommission. End-of-life technology affects everyone. An external mandate is the IFRIS Reporting (SSRS) Transition from VITA Shared Service, which VDOF began paying for the server housing the once-shared SQL Server Reporting Services (SSRS). DOF has several internal business changes that require changes to the IFRIS system including enhancements to the DOF Water Quality module, development of Land Conservation Easement Monitoring and Forest Certification reporting, enhancements for Fixed Assets and Fleet Management, and Harvest Notification Web Application Upgrade. In addition to IFRIS changes, VDOF

must upgrade the Incident Qualification System (IQS) and desktop GIS software as new versions are released. Over the next six years remediating end-of-life technology and meeting changing business mandates will continue to be the majority of DOF IT work through enhancement projects.

Planned IT investments over the next six years include the IFRIS Technology Upgrade project (underway), procuring a Forest Protection Dispatch service, in-house development of a Grants Management database to replace a manual/spreadsheet system, incremental upgrades to the infrastructure of VDOF county offices as funding becomes available, and development or integration of an Environment Review tracking system for Forest Conservation. In this biennium, the Forest Protection Dispatch service will be implemented and maintained using grant funds.

Integration of the dispatch data with IFRIS will be a future project. Also in the biennium, the Grants Management database will be developed, and VDOF is piloting the storage of GIS data in the Cloud to evaluate the technology.

Workforce Development

DOF's Maximum Employment Level (MEL) is 287 but only 233 classified Full Time Employees (FTE) positions are currently filled. The operations of the agency are also supplemented by seasonal and long-term part-time employees. Almost 80 percent of DOF's employees are considered part of the mobile workforce. Over half of DOF's workforce is also qualified to respond to forest fires.

The biggest obstacles in workforce development that DOF faces is in technology to support a mobile workforce, succession planning to prepare for the large amount of employees who can retire, and compensation to attract qualified applicants. Since going mobile, DOF has encountered obstacles that hinder the efficiency of operations. Many solutions exist for these obstacles; however, budget and compliance constraints have gotten in the way of implementing these solutions. Updated technology and systems that are supported by mobile platforms are necessary. Connectivity upgrades and additional virtual tools are also needed to fully support our employees in the field.

Currently 47 percent of DOF's workforce is eligible to retire with either unreduced or reduced retirement benefits. Within five years, this number increases to over 54 percent. Within these figures are the majority of the senior management team and a large chunk of mid-management employees. Succession planning is a must to sustain successful programs, operations, and responder events that support the agency's mission. DOF has been creative in seeking external partners for training and is fortunate to have the VA Natural Resources Leadership Institute as a resource, yet budget constraints have limited our ability to make these resources available to more than a few employees each year. DOF is also fortunate to have a federal grant cover training expenditures for wildland firefighters each year.

Overall, DOF has maintained an average attrition rate of 6.6 percent for the last three years, much less than the statewide average. We suspect that this rate will increase as we encounter more and more employees eligible for retirement. DOF conducts a thorough exit interview on all of our separating employees. The biggest reason stated for leaving is compensation. DOF's compensation for employees in the Natural Resource Manager and Specialist positions are not competitive compared to the private and federal sector as well as neighboring states. The forester positions require a four-year degree with specific accreditation, yet we are starting these positions in the low \$30Ks and forest technicians (do not need the four-year degree) in the upper \$20Ks. Currently, a compensation study is being conducted for these positions to see if there is support for increased compensation.

Physical Plant

DOF owns approximately 137 buildings including offices, mechanic shops, warehouse and storage buildings, greenhouses, quarters (sleeping rooms), and assorted sheds for fire bulldozer and transport storage, fuel and paint, tree seedlings, cone drying, etc. In addition, DOF has access and land easements for 20 fire towers (some up to 75 years old) and owns approximately 68,000 acres of State Forests and another 1,800 acres of land in forestry centers/tree nurseries, tree improvement plots, tree seed orchards, small donated lots for office buildings, and the property around the Charlottesville Headquarters. Most of the office buildings were constructed in the 1950s and '60s using cinder block. Most systems in the buildings are deteriorating: pipes are rotten, slabs have cracked, doors and windows are no longer plumb, electrical wiring is frayed, rooms are small, dark and musty, etc. Also DOF has several modular office buildings across the state approved by the Division of Engineering & Buildings under temporary building permits, many of which have been in place for 20 plus years. Funding was received in the 2016-18 Biennium to build tractor garages throughout the Commonwealth to protect expensive firefighting equipment from the elements.

Capital investments and maintenance reserve funds allow DOF the flexibility to mold our activities to reflect public priorities as we strive to protect and develop healthy forest resources. Demands on our forest resources grow with increasing population, and DOF must meet the needs to educate the public on both the economic and ecological benefits of forest management.