

Trends

No Data Available

Legend:

↑ Increase, ↓ Decrease, ↔ Steady

Key Performance Areas

No Data Available

Productivity

No Data Available

Legend:

↑ Improving, ↓ Worsening,
 ↔ Maintaining

For more information on administrative key, and productivity measures, go to www.vaperforms.virginia.gov/agencylevel/index.cfm

Background & History

Under the direction of the State Forester of Virginia, a team of Virginia Department of Forestry employees worked together for about 18 months to examine every facet of the forest resource in the Commonwealth. More than 400 citizens representing more than 50 groups and organizations generously gave of their time to provide vital input, ask important questions and offer excellent suggestions to make Virginia's assessment the best and most comprehensive it could be. The work resulted in completion of the assessment of Virginia's forest in 2008. The strategic plan was created based on this assessment, findings and recommendations to better serve the public and create an action plan that would support the sustainability of Virginia's forests.

The Department of Forestry (DOF) was organized in 1914 and now serves more people with more complex forest and community relationships; protects more lives and homes than ever before, and is one of 45 agencies in Virginia's Emergency Response Team (VERT) to provide help to Virginians during many emergencies, including hurricanes, ice and snow storms. Each year, an average of 1,000 wildfires burn approximately 11,000 acres of Virginia forestland. Agency efforts protect more than 1,100 homes and structures worth a total of \$121 million. Highly trained personnel operate a fleet of specialized equipment to contain these raging wildfires. By partnering with Virginia's 765 fire departments, federal agencies, and other landholders, DOF ensures the wildland fire response in Virginia is both efficient and effective.

Forest fire prevention and suppression, water quality monitoring, forests and harvest inspections, technical and forest management guidance, forest tree seedling production, forest research, and reforestation are important outcomes from the Department of Forestry. Providing unbiased forestry advice to private landowners is a hallmark of our mission. DOF's forestry staff provides valued, third-party, scientific technical assessments and recommendations for Virginia's private forest landowners, who control 80% of the commercial forest land. DOF serves as advisors and non-biased sources of information for legislators, planners, local governments and the forest products industry.

DOF has played a lead role in creating annual, detailed information about Virginia's forest resources by participating in the United States Forest Service (USFS) Cooperative Forest Inventory and Analysis program. DOF has initiated a Forest Spatial Analysis Center, which uses satellite imagery and other geographic information systems (GIS) technologies to track forest cover, land-use changes and forest disturbances.

Primary Product & Services

Virginia's forests are diverse and productive. Virginia is a major producer of both softwood and hardwood timber. Forest Inventory Analysis (FIA) data indicates timber growth continues to outpace removals, particularly for hardwood species. Consequently, the 2010 forest inventory indicates that Virginia now has approximately 15.4 million acres of timberland, up from 15.3 million in 2006.

In June of 2013, the Weldon Cooper Center for Public Service at the University of Virginia updated a 2008 study of the economic impacts of forest industries in the Commonwealth. In this study they attempted to quantify economic contributions as well as forest recreation impacts and beneficial environmental affects. They found that the forestry sector had a total impact of over \$17 billion in total industry output, approximately 103,800 jobs, and \$8.8 billion in value-added.

Virginia's forested landscapes provide important environmental services and other social economic benefits to the Commonwealth. These benefits include improved water quality and flood control, air quality, conservation of wildlife habitat, containment of urban sprawl, preservation of scenic beauty, and maintenance of a sense of place. An attempt to quantify the value of water and air quality environmental services using the value transfer approach suggests that the Commonwealth receives approximately \$6.385 billion in value from forestry in these ecological services alone. In addition, the Commonwealth's forests are important assets for Virginia's tourism industry.

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Virginia's forest industries have historically been among the Commonwealth's largest industries and continue to play a significant role in the Virginia economy. The impact of these sectors is felt far beyond the forest plantations and tracts where the trees are grown and harvested. Value-added industries such as the forest products industries also rely on Virginia timber as inputs to production. The growing/harvesting and processing sectors purchase production inputs, labor, and other value-added services from Virginia-based businesses, households, and institutions. These purchases cause a ripple effect in the Virginia economy when the money is re-spent.

Virginia's 22 state forests totaling 67,920 acres provide for opportunities for outdoor experiences far removed from many of the distractions found in more densely populated areas. Hunting, fishing, hiking, horseback riding, mountain biking, adventure races, orienteering and bird watching are popular recreational activities. No tax-supported general fund revenue support the State Forests.

The year 2012 has been mixed concerning forest health news in Virginia. Traditional pests such as gypsy moth and southern pine beetle have been on the decline while new pests such as the emerald ash borer (EAB) and the recently discovered thousand cankers disease (TCD) of black walnut threaten to spread further destruction. Virginia has thinned about 40,000 acres of loblolly pine out of approximately 130,000 acres estimated to be overstocked - stands that are the most vulnerable to attack. EAB has since spread to at least 17 counties across the Commonwealth and is also been found this year to be causing widespread ash mortality in several forested areas. We face the prospect of losing all ash species from natural and urban landscapes in the forthcoming decades. TCD which was discovered in 2011 around the Richmond area and in Fairfax and Prince William counties this year, threatens black walnut trees in urban and forested settings and there are no effective controls available to protect trees.

DOF research is conducted in four areas: tree improvement, diminished species, pine silviculture, and hardwood research. The tree improvement program develops the loblolly pine seedlings grown at our nursery that are sold to the landowners of the Commonwealth for reforestation efforts. DOF is the only organization in Virginia actively improving the growth and quality of loblolly pine, a major commercial species, through genetic improvement. These efforts have resulted in a superior growth rate of 25 to 60 percent greater wood volume. In addition, DOF actively supports efforts to study and restore diminishing species such as American chestnut, longleaf pine, and shortleaf pine.

DOF produces tree seedlings in its two nurseries to provide a source of native forest trees for future forest crops. Approximately 24 million loblolly pine seedlings, other pine species, and a variety of hardwood seedlings are grown and sold to private forest landowners and forest industry. No tax-supported general fund revenues support the nursery program.

Customer Base

Virginia's forests are primarily owned by private individuals who make up 63% of forested land holdings. Surprisingly the forest industry sector only owns 1% of forested land holdings with the corporate sector and the public sector each owning 18%. The public sector is comprised of Federal, State, and local governments. These landowners make up DOF's primary customers, who are served with technical and scientific forest management recommendations and protection from forest fire damage. Traditional lumber, furniture and paper & paper companies, and newly emerging biomass energy and other new forest products depend upon the private sector forests for their raw material supplies. DOF serves as an important catalyst by working to bring the private sector together with the best technical guidance and incentives to continue sound forestry investments.

Customer Listing

No Data Available

Key Agency Statistics

A summary of some important statistics are listed in the table below from the number of forest wildfires DOF suppresses to the value the Commonwealth's forest resource adds to the economy.

Finances

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

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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. The same DOF employee that serves their landowner with professional forestry advice is on 24-hour call to respond to wildfires and other emergencies. For that reason, DOF has a presence throughout the Commonwealth networking with local emergency response companies to provide public safety. DOF has an essential fire-ready infrastructure of special use equipment. Each field personnel has access to a strategically-located bulldozer and transport unit that costs nearly \$300,000 per unit, a 4X4 pick-up truck with a water tank at \$32,000, fire tools, personal protective clothing, radio, laptop and cell phone. Funding equipment needs and keeping up with technological advancements are DOF's most pressing financial concerns.

Fund Sources

No Data Available

Revenue Summary Statement

DOF revenue collections are received from a variety of federal and non-federal sources. Cooperative Forestry Assistance at \$3.8 million is a federal source of funding from the United States Forest Service. Federal funds vary greatly between years because awards are based on federal initiatives and funding constraints such as sequestration. The non-federal sources of revenue earned by DOF are just as sensitive to the economy. Forest Products Tax at \$2 million is a state tax paid by the forest products industry and is up over \$200,000 from the prior year which indicates a rise in timber harvesting. This forest products industry drives seedling sales; DOF seedling sales are at \$1.8 million which is up \$100,000 from the prior year. DOF seedlings are VA-grown and are of exceptional quality grown from seed from state-owned tree orchards for reforestation purposes. Rounding out the top three sources of non-federal revenue are payments from counties in lieu of payments for fire suppression protection shy of 1.2 million.

Key Risk Factors

Forestry and forest products face some long-term resource management challenges. Although not an immediate concern because of surplus forest inventory, continued urban sprawl and fragmentation of forest and expanding non-industrial ownership patterns point to the likelihood that the quality and availability of timber stocks will decrease at some point and costs of harvesting will increase. When land is conserved through agricultural and open space conservation easements, restrictions are often placed on forestland management. The industry also faces more formidable challenges in combating pests and disease, invasive species, air pollution, and changes in forest ecology from fire suppression, which are taking an increasing toll on Virginia forests.

The industry also must contend with increasing international competition and mounting regulatory and consumer scrutiny. International competitors are making continued inroads into hardwood furniture and now even previously insulated forest products such as office furniture, upholstered furniture, and flooring. Mounting federal regulations governing water and air quality are increasing production costs. Local ordinances can sometimes encumber logging activities. Third-party certification of wood products to ensure compliance with ecologically sustainable forest management practices may increase the complexity and costs of forest management, presenting significant barriers to participation for some landowners.

Despite these challenges, the outlook for the industry is now largely on the upside. Substantial industry restructuring has already occurred. Virginia has formidable forestry and forest product manufacturing locational advantages that will persist. Moreover, the industry is primed to grow again as the general economy recovers, the housing market improves, firms continue to adapt new production processes, and firms exploit new product and service markets and recover some ground lost to international competition.

The furniture industry in the Southside region of Virginia and Piedmont region of North Carolina grew to be a significant employer for a number of reasons, including the quality and availability of timber, good transportation infrastructure, and the cost and quality of labor.

New and emerging markets are also important. Growth in the green design and construction sector has increased demand for sustainably produced wood and local wood products. The creation of ecosystem services markets such as nutrient or carbon credit trading to reduce pollution could also benefit forestland owners. New opportunities may exist also for professional forestry-related services that cater to urban and suburban customers in such areas as harvesting and thinning, marketing, and other areas. Furniture and other forest products firms might develop new markets by placing more emphasis on design, customization, fostering efficient supply chains and supplier relationships, and building long-term customer service relationships through service agreements.

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Biomass energy production has emerged in recent years as a promising new market for surplus wood residues. Federal clean and renewable energy programs and Virginia's voluntary Renewable Portfolio Standard offers incentives to the state's power companies to produce electricity from renewable resources. Virginia had seventy-one facilities producing electricity from woody biomass in 2011. The largest electricity producer was the 79MW Pittsylvania Power Station, which has since been joined by a Wise County co-firing plant that produces 55MW from wood. Several additional plants have been planned that would collectively add 275MW in capacity.

Current Trends Impacting Forestry:

- On a rolling 10-year average, Virginia is losing an estimated 16,000 forested acres annually to conversion;
- Total timber production more than doubled and market prices peaked in the 1990's;
- Number of timber harvests is increasing, while harvested acres are decreasing;
- Increased harvests require greater water quality monitoring and inspections;
- Fire risk for Virginia woodland homes is increasing rapidly; and
- In every model used, the acreage of forestland in the South is predicted to rapidly decline.

Performance Highlights

1. The Virginia Department of Forestry (DOF) is a recognized national leader in its delivery of wildfire suppression, 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 350 students representing more than 11,000 hours of total training.

2. 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.

3. Several indicators determine whether Virginia's private and public forests are healthy and are being managed sustainably. Overall, the current net growth of live volume exceeds removals by a ratio of nearly two to one. In terms of overall volume harvested annually from Virginia's forest resources, Virginia ranks 6th in the nation (behind GA, AL, NC, AR and SC). For softwood only production, we are 7th in the nation; while for hardwood only production, we are 2nd in the nation (behind NC).

4. Twenty two State Forests in multiple counties comprising 67,920 acres of working forest land available to the public for recreation, while providing timber products for the forest industry, and revenue to local government for their administration.

5. A DOF employee earned the "Most Innovative" national award in the inaugural Chesapeake Forest Champion contest created as part of the United Nations' International Year of Forests for "Generation Next" - a family forest transition short course that provides forest landowners with the information and tools they need to ensure a smooth intergenerational transfer of their property while keeping critical forests intact.

6. 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.

7. Two forest tree seedling nurseries producing approximately 30 million hardwood and softwood tree seedlings for reforestation and general conservation. Seedlings are available for sale to private land owners and industry owners to help with their reforestation needs and providing future forest products' raw materials.

Performance Measures

Management Discussion & Analysis

General Information about the Ongoing Status of the Agency

DOF is an active partner in the effort to gain better information and data analysis on Virginia's forest resources and create tools and analysis tools for business and policy decision making. DOF will encourage active scientific management of private forests and maintaining working forests to provide forest land base for future forest products, and conducted in an environmentally sensitive way.

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Forest inventories are ongoing projects and the results are used for business and policy-making decisions. Efforts are ongoing to understand the reasons that forest harvests are increasing while reforestation is decreasing in the southern coastal and piedmont areas.

Future challenges will include forest markets; public safety; loss of forestland, and concerns on the sustainability of the resource. DOF will face new, increased difficulties with forest fire suppression as more homes are built in forests and the average tract size decreases. New and more effective public information and communications campaigns will be required to address the dangers with the landowners and the public. Public safety will remain a major goal of DOF.

Information Technology

1. Three regional offices and headquarters are each equipped with one Statewide Agencies Radio system (STARS) dispatch console. These full function consoles are single-use application personal computers connected to a private network. Information on available resources for emergency response is manually tracked now. Each responder vehicle is equipped with a minimum of two mobile radios, and firefighters are issued two handheld units. One radio is a Statewide Agencies Radio System (STARS) unit providing the vehicle operator direct communications with the DOF regional office and other firefighters within the region. Another mobile provides seamless communications with local 9-1-1 dispatcher centers. DOF firefighters are equipped with one STARS handheld radio providing direct communications to their regional office, DOF Headquarters, and other Commonwealth of Virginia agencies. Part-time fire fighters are provided portable radios for their safety.

2. The objective of DOF's Information Systems Division is to support DOF divisions and employees in meeting their goals and objectives with innovative and cost effective solutions. The Information Systems Division will do this in the upcoming biennium by:

- Meeting Commonwealth of Virginia (COV) and DOF Security Policy requirements;
- Maturing the agency Information Systems internal control processes;
- Exploiting current data and improving data quality; and
- Enhancing reporting and analysis including geographic information system (GIS).

The July 2011 Information Security Audit pointed to weaknesses of internal control and reducing vulnerabilities within the DOF information security program. Some of the findings can be corrected through process improvements, while others can only be corrected by the addition of qualified staff and upgrade and/or replacement of DOF information systems. The three DOF enterprise information systems - IFRIS® (Integrated Forest Resources Information System), IMS (financial) and NIMS (seedlings sales and inventory management) do not meet the COV Information Security Standard for the use of end-of-life software, separation of duties, and other software security vulnerabilities. DOF is replacing the NIMS system with a software as a service, utilizing self-funded seedling nursery revenue, and the agency received additional general fund dollars to replace/upgrade IMS and IFRIS® modules that are not COV compliant. This much appreciated funding represents one-time funds which help to bring DOF information systems up to current technology. However, a long-term funding mechanism is required for maintaining these important systems. DOF will require additional funding to make the long-term plans necessary to support the landowners and forest products industries. DOF is also facing other critical end-of-life server and PC operating systems; server capacity and age limits, and applications not compatible to revised operating systems - all of which require additional funding.

Information and mapping services constitute the important needs for modern and efficient public sector forestry services in the Commonwealth. COV Information Security Standards require that DOF have trained information security professionals that implement complex IT security controls, but DOF lacks the trained staff. Federal data base systems are now geo-spatial and require reporting activities in GIS format. Overall, DOF has not kept up with technology because its funding base is only sufficient to perform basic maintenance. Changes and security requirements are more rapid than DOF's ability to adapt. It is imperative that public sector forestry keep its technology current to maintain vital geo-spatial data bases about the forest resources and the changes on Virginia's private forests. Industry will depend upon this public information in the future for sound business decision-making and healthy business growth.

Successes:

In early 2011, the agency moved the Asset Inventory and Fleet Management modules from the IMS to IFRIS®. These two modules allow users to track the assets (such as chainsaws, firefighting equipment and vehicles) assigned to them. The Fleet management system tracks fleet maintenance records for both passenger vehicles and other equipment, such as all-terrain vehicles (ATV) and bulldozers used by DOF.

DOF implemented a Water Quality Best Management Practices (BMP) Audit module in IFRIS®. This module allows DOF Water Quality field staff to utilize both a web interface and mobile data collection.

DOF partnered with Virginia Tech to develop a public-facing, interactive land management tool called InFOREST that provides landowners, natural resource managers and land-use planners access to information about the resources they manage. The system allows users to ask "what if" questions about carbon sequestration in a forest stand; the value of different land-use types for decreasing nutrient and/or sediment runoff, and nutrient offset calculations for the Virginia Nutrient Training Program.

Several important projects are underway:

- Seedling Nursery System Upgrade - DOF is pursuing a Software-as-a-Service to support the DOF Seedling Nursery operations. The Service will provide customer, inventory and sales management for DOF's two seedling nurseries, and will include an on-line store for customer purchases.
- DOF Reforestation of Timberlands and Financial System Technology Upgrade - DOF is pursuing development of a newer and

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supportable system to administer the Reforestation of Timberlands fund management and the Accounts Receivable functions of the Department.

- Integrated Forest Resource Information System (IFRIS) Technology Upgrade - Several parts of the DOF IFRIS do not meet the COV Information Security Standard.
- DOF is pursuing a technology upgrade of field computing to include laptops and smart phones as part of a Going Mobile plan.

Workforce Development

DOF provides services in every county of the Commonwealth. DOF has reorganized on the concept of a more mobile workforce. DOF's future challenges include rapidly changing technology, retention of highly qualified personnel, and safe and effective forest fire suppression as more Virginians move into woodland home communities. The spread of invasive weeds and newly introduced pests threaten the health of Virginia's trees as well as the ever-important role forests have in keeping our drinking water clean. DOF primarily employs Foresters and Forest Technicians to ensure lives are protected from wildfire and forests are protected for the future.

Forest Technicians predominately are responsible for responding to wildland fires; training of volunteer firefighters within their assigned work areas; monitoring logging sites for water quality issues; enforcing the Water Quality and Fire laws; performing forest management activities; conducting school programs; and performing building and grounds maintenance functions.

Area Foresters are predominately responsible for writing forest management plans; coordinating cost share programs within their assigned work areas; monitoring reforestation activities; performing other forest management functions; responding to wildland fires; enforcing the Water Quality and Fire laws; monitoring logging sites for water quality issues; conducting school programs; and performing building and grounds maintenance.

- As of June 30, 2012, DOF had 230 classified employees. This is a 22.2 percent drop from the 281 employees it had as of June 30, 2007.
- DOF currently has 39 employees - 17 percent of the agency's workforce - eligible for full retirement. Within five years, 67 employees (29.1 percent) will be eligible for full retirement.
- The turnover rate for Fiscal Year 2012 was 6.5 percent - an increase from the FY 2011 turnover rate of 5.8 percent. Primary reason cited by departing employees is salary level.
- Since July 1, 2003, the agency has hired 147 staff members. Fifty of those individuals left within 5 years of hire. This is a turnover rate of 34.0 percent.

Physical Plant

DOF owns approximately 145 buildings: 37 office buildings, including six buildings listed for surplus sale in the 2012-13 fiscal year, mechanic shops, warehouse and storage buildings, greenhouses, quarters (sleeping rooms), and assorted sheds for fire bulldozer and transport storage, fuel and paint, tree seedling, cone drying, etc. In addition, DOF has access and land easements for 20 fire towers (some up to 75 years old).

DOF 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. The cost of maintaining older facilities has escalated and is expected to continue. 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+ years. DOF recognizes its obligation to replace the temporary office structures with permanent structures once capital funding is made available.

State Forest lands, tree seedling nurseries and the facilities located thereon 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 and seeds.

Factors Impacting Capital Investments:

DOF has moved from six regional office complexes to three regional office complexes: Eastern, Central and Western. Each region now has seven or eight multi-county work areas. Additional capital assistance will be needed as these innovative restructuring endeavors advance. DOF has experienced a need for additional capital investments to institutionalize these changes and realize long-term savings under this new "going mobile" model. 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. In addition, decreased revenues from our timber and nursery operations pose a significant challenge in maintaining our State Forests system and nursery operations. The costs for maintaining the buildings, nursery equipment and forestlands continue to escalate.

Capital Investments Alignment:

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

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on both the economic and ecological benefits of forest management.

State Forests provide a venue for DOF to demonstrate to the public, forest management practices (prescribed burns, timber stand improvement, tree species selection, pest control, wildlife management, etc.) that improve forests and income potential. These lands are also part of the Commonwealth's effort to conserve the forestland base in Virginia so that the people of the Commonwealth have access to forest benefits (clean water, clean air, places for recreation, biodiversity conservation, affordable forest products and others).