

Addendum to the Kentucky Statewide Assessment of Forest Resources and Strategy, June 2010

NATIONAL PRIORITIES SECTION

November 2015

As stated on page 16 of the **Kentucky Statewide Assessment of Forest Resources and Strategy, June 2010 (also known as the Kentucky Forest Action Plan)**, the federal Food, Conservation, and Energy Act of 2008 (2008 Farm Bill) required all states to evaluate their forests and develop strategies to address forest issues. The 2008 Farm Bill outlined the requirements that the assessment and strategy had to include. In August 2010, the USDA Forest Service approved Kentucky's plan as having met these assessment and strategy requirements.

The Kentucky Forest Action Plan was developed with a comprehensive team of stakeholders to address the issues determined by Kentucky's citizens to be the most critical in conserving, protecting, and enhancing Kentucky's trees and forests. These five critical issues are Forest Health, Water Quality and Quantity, Forest Loss and Fragmentation, Forest Management, and Funding.

The purpose of this National Priorities Section is to show the link between Kentucky's five critical issues and the three national priorities: Conserve and Manage Working Forest Landscapes for Multiple Values and Uses, Protect Forests from Threats, and Enhance Public Benefits from Trees and Forests. Almost all of the activities undertaken are linked to more than one national priority. Pages 122-165 of the Kentucky Forest Action Plan contain the Forest Resources Strategy. Every tactic identifies the national theme or themes it covers in the right-hand column on each page.

This addendum serves as a record of some of the activities undertaken in Kentucky from June 1, 2010-September 30, 2015 to address the five issues discussed in detail in the Kentucky Forest Action Plan.

- **Hemlock Woolly Adelgid Suppression Program:** The hemlock woolly adelgid is one of Kentucky's most significant threats. It occurs across 28 counties in eastern Kentucky and will have major ecological and environmental impacts on forest health. The Division of Forestry established a suppression program to coordinate multi-agency projects with local county extension agents, local forestry organizations, state and federal agencies, non-government organizations, and interested civic groups. With a full time coordinator and crew, the division provides an extensive chemical treatment program and technical assistance to residential and municipal entities. In 2015, the division partnered with the Tennessee Division of Forestry to increase chemical treatments and develop new *Laricobius spp.* field insectaries in both states. Since 2010, the suppression program has created five positions within the division, chemically treated over 100,000 hemlock trees, and brought in over \$1.3 million in funding. Major partners

include the U. S. Forest Service, Daniel Boone National Forest, Kentucky Department of Parks, Kentucky Heritage Land Conservation Fund, Kentucky Nature Preserves Commission, Steele-Reese Foundation, and Toyota Motor Manufacturing Kentucky.

Issue 1: Forest Health Strategy; Goal 1: Reduce the spread of invasive plants, insects, and diseased through improved monitoring, management, and education.

(Conserve and Protect)

- **Forest Health Research and Education Center:** A partnership between the Forest Service Southern Research Station, University of Kentucky Department of Forestry, and the Kentucky Division of Forestry began in 2013 to find solutions to health threats in hardwood forests. As a result of this partnership, the Forest Health Research and Education Center was formed to tackle forest health issues and improve the sustainability of the forests of the eastern U.S. using biological sciences, social sciences, and education and outreach

Issue 1: Forest Health Strategy; Goal 4: Support and develop forest health research projects.

(Conserve, Protect and Enhance)

- **Bloodhound Program for Wildland Arson:** Since the beginning of the new arson bloodhound program and public awareness campaign in 2014, the bloodhounds have been used on more than 20 suspected wildland arson cases in southeast Kentucky. To date there have been two cases that have proven to be successful in identifying a suspect. These individuals admitted to starting a fire that escaped their control, and agreed to pay suppression cost for the fire. The bloodhounds have been featured in several news stories, television advertisements, and some school programs about the work they do to combat wildland arson. The public awareness of the program seems to be bearing some fruit with lower than average arson fires in counties where the bloodhounds are working. We are in partnership with the Bell County Forestry Camp Correctional Facility and the Kentucky State Police Arson Investigation Unit. The Bell County Forestry Camp provides the bloodhounds and their handlers. The State Police provides assistance once a suspect has been identified.

Issue 1: Forest Health Strategy; Goal 7: Provide leadership, support and coordination for educating the public about wildfires in Kentucky

(Conserve and Protect)

Issue 1: Forest Health Strategy; Goal 8: Enhance and improve wildfire law enforcement programs

(Conserve, Protect, and Enhance)

- **Southern Appalachian Mixed-Mesophytic Reclamation Initiative:** The Kentucky Division of Forestry teamed with the Kentucky Division of Abandoned Mine Lands, Appalachian Regional Reforestation Initiative, and the American Chestnut Foundation to reestablish 15,000 American chestnut and other hardwood seedlings on a 16 acre bond forfeiture coal mine site in Lawrence

County, Kentucky within the Appalachian Forest Priority Area. The forfeited bond was not enough to restore the site, so using the bond money, federal funds, state funds, and in-kind contributions, the former mine site was prepared and planted. The project also provided technical assistance to adjacent landowners to encourage forest management activities and improve forest health and water quality across the Appalachian region. The last site inventory recorded a 50 percent survival rate across the whole project area. This project was a multi-state competitive project between Kentucky and Virginia.

Issue 1: Forest Health Strategy; Goal 5: Promote reforestation on post mining land
(Conserve, Enhance)

- **Revisions to best management practice for streamside management zones:** After the completion of a multi-year study by the University of Kentucky on timber harvesting in streamside management zones, the Kentucky Forestry Best Management Practices Board approved changes to the silviculture best management practices (BMP) in 2015. The most significant change is the increase in minimum surface distance for roads, trails, and landings adjacent to perennial and intermittent streams. The BMP changes were approved by the Kentucky Agriculture Water Quality Authority and have been included in the Kentucky Agriculture Water Quality Plan.

Issue 2: Water Quality and Quantity Strategy; Goal 1: Ensure timber harvest operations employ measures to maximize water quality protection.
(Conserve, Protect, and Enhance)

- **Revisions to timber harvest compliance law to address repeat bad actors and bad actors that have not paid civil penalties or completed remediation:** Since 2000, loggers and operators in Kentucky have been required by law to use best management practices to protect the waters of the Commonwealth. In its 2015 session, the Kentucky General Assembly passed amendments to the timber harvest compliance statutes giving the Division of Forestry the authority to shut down all the timber harvests of loggers with three or more bad actor designations until they pay all outstanding civil penalties and complete all corrective action. In addition, it requires bad actor loggers that have not paid their civil penalties or completed all correctives actions to provide prior notification of all their timber harvests to the Kentucky Division of Forestry until all penalties are paid and corrective action completed. Civil penalties from violations of timber harvest requirements are deposited into the Forest Stewardship Incentives Fund.
- *Issue 2: Water Quality and Quantity Strategy; Goal 1: Ensure timber harvest operations employ measures to maximize water quality protection.*
(Conserve, Protect and Enhance)
- **Best Management Practices Implementation on Timber Harvests:** Between May 1, 2012 and August 30, 2013, 125 randomly selected timber harvests were audited for best management practice (BMP) implementation. The results of this most recent audit, when compared to two

previous audits, indicate that BMP implementation has improved from 47 percent in 2005 to 68 percent in 2008 and finally 74 percent in 2013. Implementation rates for the primary sediment producers on a timber harvest; roads, trails and landings, have improved from 57 percent to 71 percent while the implementation rates for Streamside Management Zones have improved from 67 percent to 79 percent. These increases in implementation rates indicate that nonpoint-source pollution resulting from timber harvesting operations within Kentucky is declining. Because Kentucky law does not require advanced notification of timber harvesting, only 42 of these harvest sites had been inspected for compliance; however, the trend towards proper use of appropriate bmps continues to rise.

Issue 2: Water Quality and Quantity Strategy; Goal 1: Ensure timber harvest operations employ measures to maximize water quality protection.

(Conserve, Protect and Enhance)

- **Big Rivers Wildlife Management Area and State Forest and Marion County Wildlife Management Area and State Forest:** The Kentucky Division of Forestry and the Kentucky Department of Fish and Wildlife Resources jointly acquired 6,732 acres in Union and Crittenden counties at the confluence of the Ohio and Tradewater rivers. Using money from the Forest Legacy Program, the Kentucky Heritage Land Conservation Fund, The Nature Conservancy, Indiana Bat Conservation Funds, in-lieu-fee mitigation funds, and Kentucky Department of Fish and Wildlife agency funds, the state purchased phase I in 2012 and phase II in 2013. This property now known as the Big Rivers Wildlife Management Area and State Forest is within the Big Rivers Forest Priority Area and the Big Rivers Corridor Forest Legacy Area.

The Marion County Wildlife Management Area and State Forest is a 1,293-acre tract of land located east of Lebanon, Kentucky. The property is strategically located between Green River Lake State Park, Perryville Battlefield State Historic Site, Old Fort Harrod State Park and the Lincoln Homestead State Park. The Kentucky Department of Fish and Wildlife Resources, Marion County Fiscal Court and the Kentucky Division of Forestry cooperatively own and manage the property. The property was purchased in June 2010 with funding from the Kentucky Heritage Land Conservation Fund, Wildlife Restoration Act and the Kentucky Fish and Game Fund. This wildlife management area and state forest is located in the Headwaters Forest Priority Area.

Issue 3: Forest Fragmentation and Loss Strategy; Goal 6: Increase acres of protected forestlands
(Conserve, Protect, Enhance)

- **Kentucky's 20/20 Vision for Reforestation:** Although almost half of Kentucky is forested, with another 2 million acres that have the potential to be reforested. In 2014, Kentucky's 20/20 Vision for Reforestation began with the goal to plant 20 million seedlings in 20 years. The project uses Boy Scouts, Girl Scouts, 4-H clubs, and volunteers to plant seedlings on private and public lands. The Division of Forestry's two tree nurseries will grow most of seedlings planted through this initiative. Over 1.1 million seedlings have been planted since January 1, 2014.

Issue 3: Forest Fragmentation and Loss Strategy; Goal 4: Increase forest cover on mined land and Goal 5: Reduce or minimize the impact of forest loss and fragmentation due to agricultural conversion

(Enhance)

- **Kentucky Community Tree Recovery Campaign:** In March 2012, tornadoes passed through Kentucky, leveling many businesses, homes, trees, and forests. The Kentucky Community Tree Recovery Campaign was created as a partnership between the Arbor Day Foundation, the Kentucky Division of Forestry, local conservation districts, and private businesses to assist communities with recovery efforts. The recovery campaign focused efforts in two ways – to replace trees lost in the tornadoes and to provide citizens an opportunity to participate in the recovery of Kentucky’s forests through volunteer service.

In 2014 and 2015, the campaign was implemented in ten counties in southeastern and northern Kentucky. Nine counties had public planting events, where citizens assisted in planting trees on a public space such as a school ground, park, or extension office. These planting events planted between 100-2,500 seedlings with 20-300 volunteers planting the trees. Representatives from the private companies who donated to the campaign were invited to participate as well. In addition to these planting events, seedlings were given away to the public through partnering with other local agencies such as county conservation districts, community centers and county extension agencies. Each county was allocated a total of 5,000 trees to be planted and given away for a total of 50,000 trees in a two year time period. Funds are available through the Community Tree Recovery Program to assist five more tornado counties plant 25,000 trees in the spring of 2016. The recovery program assisted counties and communities in the Bluegrass Rivers Forest Priority Area and the Appalachian Forest Priority Area.

Issue 3: Forest Fragmentation and Loss Strategy; Goal 2: Enhance and protect existing forested areas in the urban landscape and Goal 3: Increase acres of traditional forests in urban areas.

(Conserve and Enhance)

- **Rebuilding of Morgan County Nursery:** In 2012, a major tornado destroyed the Morgan County Nursery resulting in \$3.2 million in damage to the buildings, furnishings, property, farm equipment, vehicles, and seedlings. Despite the loss, the Division of Forestry managed to continue the nursery’s operations. After two years of working through insurance claims and reconstruction, Governor Steve Beshear cut the ribbon on the new packing and shipping building and cooler. Seedling production was down the first year after the storm, but is slowly returning to pre-storm levels.

Issue 1: Forest Health Strategy; Goal 5: Promote reforestation opportunities on post mining land; Tactic 5.1.1: Maintaining the Division of Forestry Tree Nurseries ability to produce tree seedlings for mine reclamation to meet current and future demands

(Enhance)

Issue 4: Forest Management Strategy; Goal 3: Enable private family forest owners to enhance their stewardship potential through technical and financial assistance; Tactic 3.3.1: Maintain the Division of Forestry Tree Nurseries ability to produce tree seedlings for afforestation, reforestation and mine reclamation to meet current and future demand
(Conserve, Protect, and Enhance)

- **Triplett Creek Watershed Project:** This project was awarded funding from the Two Chiefs' Joint Landscape Restoration Partnership in 2014 as a collaborative effort between the Division of Forestry, the Daniel Boone National Forest, Natural Resources Conservation Service, Kentucky Department of Fish and Wildlife Resources, Kentucky Chapter of The Nature Conservancy, Rowan County Conservation District, Rowan County Firewise, and local volunteer fire department chiefs to project the Triplett Creek Watershed by activities to reduce wildfire and improve forest management. The Triplett Creek Watershed is located in the Appalachian Forest Priority Area.

To address forest management needs, the Division of Forestry prepared forest stewardship plans and practice plans for landowners with the Triplett Creek Watershed who signed up to receive cost-share assistance from the EQIP program. The practices included afforestation, riparian buffers, timber stand improvement, and improvement on existing access trails and roads. Triplett Creek Project funds supported the Summer/Fall Volume 10 Issue 1 of the *Kentucky Woodlands Magazine* and supported the East Region Woodland Owners Short Course held September 26, 2015. The division piloted the first class of the Master Forest Stewards, a program to teach landowners to be mentors to other forest landowners.

To reduce wildfire risks, the division signed agreements with the Rowan County Fiscal Court and the Rowan County Soil Conservation District to reimburse both volunteer fire departments and local homeowners for wildfire risk assessments and mitigation of wildfire risks to homes and property within the Triplett Creek Watershed. There have been numerous joint-agency and public meetings along with radio interviews and newspaper ads to alert the public to wildfire risks and the assistance available address these risks.

Issue 1: Forest Health Strategy; Goal 6: Enhance comprehensive wildfire prevention programs in Kentucky to reduce the number of human-caused wildfires in Kentucky and Goal 7: Provide leadership, support and Coordination for educating the public about wildfires in Kentucky.
(Conserve, Protect)

Issue 2: Water Quality and Quantity Strategy; Goal 2: Improve Kentucky water quality through the protection, enhancement, and restoration of forested riparian areas.
(Conserve, Protect)

Issue 4: Forest Management Strategy; Goal 3: Enable private family forest owners to enhance their stewardship potential through technical and financial assistance.
(Conserve, Protect, Enhance)

- Kentucky Forestry Economic Impact Report:** In 2012 the University of Kentucky's College of Agriculture's (now known as the College of Agriculture, Food and the Environment) Department of Forestry and Forestry Extension published the Kentucky Forestry Economic Impact Report 2012-2013 that for the first time quantified the financial contributions of state's forestry sector. The report was a partnership with the university, the Kentucky Division of Forestry, USDA Forest Service's Southern Research Station FIA Unit, and the Kentucky Forest Industries Association. The analysis revealed that the forestry sector was a major economic driver in the state providing total employment of 51,000 jobs and \$9.99 billion in total impact (\$6.36 billion in direct impact) to Kentucky's economy in 2012. The report provided insight to predicted performance in 2013.

The second report for 2013-2014 revealed that economic impacts has increased to \$8.3 billion in direct contributions (up 4.4percent) and estimated that total impacts were \$12.8 million. Total employment had increased to 57,700.

Having this information has been invaluable in showcasing the importance of Kentucky's forest industries to elected official, forest landowners, Kentucky citizens, and the industries themselves.

Issue 4: Forest Management; Goal 1: Publicize the value of Kentucky's forest resources and the benefits of proper management; Tactic 1.3.4: Address public information needs such as: economic impact of forestry for wood products and ecosystem services and demand for Kentucky wood products; Goal 5: Monitor forest management levels in Kentucky to identify trends, needs, benefits, and threats: Tactic 5.1.6: Develop a means to assess the true economic impact of the forest industry on the economy of Kentucky
(Conserve, Protect and Enhance)

- Kentucky Roots Campaign:** The Kentucky Roots Campaign is the product of a 2012 Competitive Grant (\$85,000) that was awarded to the Division of Forestry and passed through to the Northern Kentucky Urban and Community Forestry Council (NKUCFC). The NKUCFC had identified that there was a lack of educational materials available to low literacy adults about trees, specifically why the public should care about trees, and how they should care for their trees. Learning how everyone can be part of the solution to protect and enhance Kentucky's forest resources is a critical need because almost 90percent of Kentucky forests are privately owned and most urban homeowners have trees.

The NKUCFC contracted with a media relations firm to develop a campaign of simple messages with input from multiple target groups. This firm assisted the council in developing strategies to reach the identified target audience effectively. Most of the grant money went towards developing the campaign, with about \$15,000 remaining for implementation. As the NKUCFC began implementation with the campaign, the council was successful in securing sponsorship from a private utility company in 2014 and 2015 for an additional \$35,000 of implementation

funds. So far, the NKUCFC has implemented the campaign using radio ads, point of sale postcards, bus ads, pop up banners, promotional giveaway items, and sponsorship at sporting events. The marketing firm was successful in further leveraging the grant dollars by getting additional in-kind services from vendors, such as free interior bus ads with the purchase of exterior bus ads. The NKUCFC plans to continue implementing the campaign and continue to seek additional sponsorship.

Issue 1: Forest Health Strategy; Goal 3: Reduce negative impacts of air pollution in urban areas
(Protect and Enhance)

Issue 2: Water Quality and Quantity Strategy; Goal 5: Increase the public awareness of the relationship between forestland use and water quality and quantity.
(Conserve and Protect)

Issue 4: Forest Management Strategy; Goal 1: Publicize the value of Kentucky's forest resources and the benefits of proper management and Goal 4: Establish and build local urban and community forestry programs
(Conserve, Protect and Enhance)

- **Recommendations for the Harvesting of Woody Biomass-October 2011:** These recommendations were developed to promote a well-managed environmentally conscious approach to utilizing forest slash, inferior quality trees, and dedicated production for bioenergy and also enabling Kentucky to diversify its energy portfolio while protecting water quality, improving air quality, creating jobs, increasing tax revenue, and improving our state's energy independence. More specifically, the recommendations are offered to assist landowners, loggers and the users of woody biomass in making sound decisions regarding biomass harvesting and removal while ensuring the sustainability of the forest resources.

Issue 4, Forest Management Strategy; Goal 2, Promote the efficient, sustainable, and environmentally sound economic utilization of Kentucky's forest resources for forest products and environmental services
(Enhance)

Rural Community Wealth Project: The Rural Community Wealth (RCW) project has been implemented in Kentucky using funds from two competitive grant cycles (FY 11 and FY14, \$100,000 each year). The Community Design Assistance Center (CDAC) of Virginia Tech was contracted to work with communities in southeastern Kentucky. The purpose of the project is to develop conceptual green space plans for communities. Communities applied to participate in RCW through a competitive grant process that was administered by the division. The process of working with each community included an initial site visit, stakeholders meeting, and two community meetings before the final package is given to the communities. Fifth year landscape architect students from Virginia Tech are responsible for drafting the plans.

A key feature of RCW is ensuring that multiple groups and interests are represented at the meetings. At the community meetings, participants are offered at least two design plans of each area and discussions about their likes, dislikes, ideas, and concerns are facilitated by CDAC. Finalized conceptual plans that represent a broad, collective voice are given to community. Communities are then able to begin implementing pieces of the plans. Six communities in Kentucky have completed plans and have implemented parts of their plans by attaining grants, donations of cash and in-kind services, and also through their own budgets. RCW has been successful in helping to leverage funds for the communities many times over the initial project amount.

Issue 1: Forest Health Strategy; Goal 2: Decrease the impacts on forests due to improper trail use, management, and design

(Conserve and Protect)

Issue 2: Water Quality and Quantity Strategy; Goal 5: Increase the public awareness of the relationship between forestland use and water quality and quantity

(Conserve and Protect)

Issue 3: Forest Fragmentation and Loss Strategy; Goal 1: Reduce or minimize the impact of forest loss from urban development

(Conserve, Protect and Enhance)

Issue 4: Forest Management Strategy; Goal 4: Establish and build local urban and community forestry programs

(Conserve, Protect and Enhance)

Implementation Challenges

The greatest challenge to implementation of the Kentucky Forest Action Plan was the reduction in state and federal funds that forced the Division of Forestry to reorganize its structure and realign employees in 2013. The division consolidated field operations from nine districts into five regions. Four district offices were closed. Twenty-four employees were transferred to other state agencies. Several that remained elected to retire or resign because the changes in the location of their work assignments created a hardship for them. The Division of Forestry continued to provide services under the new structure, but the impact in employee loss resulted in an increase in response time to provide the services.

Next Five Years Implementation Focus

The Division of Forestry will continue concentrate to on its core mission areas, will complete landscape level projects that are currently underway, and look for project opportunities that align with Part 3: Forest Resource Strategy, pages 122-165, of the Kentucky Forest Action Plan. In addition Kentucky will have a new governor and executive leadership team, which could impact implementation focus.