

Part 3: Forest Resource Strategy

A. Introduction

The Food, Conservation, and Energy Act of 2008 requires that all states evaluate their forest resources, identify any areas or regions of the state that are a priority, develop strategies for addressing forestland issues, and include a description of resources needed to implement the strategy. Part 1 of this document evaluated the forest resources according to the five most important forestland issues, and Part 2 identified forest priority areas by utilizing the Southern Forest Land Assessment (SFLA) protocol to Kentucky. Stewardship priority areas were also identified utilizing specified program critical issues. The third part of this revised plan proposes a strategy to address threats to the forest resources in Kentucky.

The Forest Resource Strategy provides an outline for investing state, federal, and other resources to address the issues of importance to Kentucky's forests, as addressed in the Assessment. These issues incorporated the national themes of conserving working forest lands, protecting forests from harm, and enhancing public benefits from trees and forests. By using an issue-based approach to the Forest Resource Strategy, federal investment can be focused to most effectively stimulate or leverage desired action and engage multiple partners. The strategy also incorporates existing statewide forest and resource management plans, and provides the basis for future program, agency and partner coordination to address forest resource concerns and issues within Kentucky.

The strategy is organized according to the top five forest issues identified in the Assessment. Regarding each issue, a general textual overview of the strategy elements is provided with a detailed list of the goals, objectives, and performance measures for each issue. Goals convey the broad outcomes desired as a result of the strategy. Objectives are measurable methods used to achieve the goals. Regarding each objective, performance measures define how progress toward the goal may be measured. The text provides an overview of the goals of the forest resource strategy for each issue with the specific detail listed in a quick reference format at the end of the strategy section. Using this format, Kentucky's forest strategy provides a clear plan for forestry activities over the next five years and beyond.

The strategy was developed by focusing on the elements necessary to address the national themes of conserve, protect, and enhance. The status of resources, including staffing amongst primary agencies, partners, and funding, was not considered as the strategy was developed. The resources required to complete the strategy objectives could be of many different types including personnel, funding, materials, collaboration, memoranda of agreement, memoranda of understanding, public relations, or other types of resources. The sources of these resources may be state funding, federal funding, non-government organizations, partner collaboration, or other sources.

Some of the threats and opportunities addressed in the Forest Resource Strategy could be addressed under multiple issues. For instance, proper trail design and maintenance could be addressed as part of the forest health issue or the forest management issue. In order to avoid repetition of strategies under multiple headings, if a threat or opportunity is fully addressed under one issue, it is not addressed in an overlapping issue unless necessary.

Within the November 2015 Addendum to the 2010 Forest Action Plan, the five issues of Forest Health, Water Quality and Quantity, Forest Loss and Fragmentation, Forest Management, and Funding were discussed as being linked with 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 recommended strategies were linked to more than one national priority, and continue to be the case for this revision.

B. Issue 1: Forest Health Strategy

The numerous benefits and uses provided by Kentucky’s forests are threatened by many direct and indirect pressures as summarized in Part 1 of this assessment. Forest loss due to conversion is the most direct threat to forest health. Numerous invasive pests and diseases including Emerald Ash Borer and Hemlock Woolly Adelgid have and will continue to cause significant destruction. As Kentucky needs further research on many forest health issues, funding of this research is a major part of the strategy. Prescribed fire use and forest stand age are among many topics that will require further research to properly manage. The highest rate of human-caused wildfires in the South threatens not only Kentucky’s forests, but also many communities that are at risk. These are just a few of the threats facing the health of Kentucky’s forests. Effective management strategies are necessary to make the public aware of the significance of such threats and to keep forests healthy.

The forest health strategy seeks to identify the goals, objectives, and performance measures associated with surveying, managing, and restoring forest health in Kentucky. Public awareness and education on these issues is also vital to the success of this strategy. Nine goals have been devised in order to address the threats to Kentucky’s forest health. The specific objectives, and performance measures associated with each of these goals are listed in a quick reference format at the end of this section.

1. Reduce the impact of invasive plants, insects, and diseases through improved monitoring, management, and education. (Conserve and Protect)
2. Conduct research to improve forest health management techniques, and further assess the health of Kentucky’s forests. (Conserve, Protect and Enhance)
3. Decrease the impacts on forests due to improper trail use, management, and design. (Conserve and Protect)
4. Utilize trees to decrease air pollution in urban areas. (Protect and Enhance)
5. Promote reforestation opportunities on post-mining land. (Conserve, and Enhance)
6. Enhance comprehensive wildfire prevention programs in Kentucky to reduce the number of human-caused wildfires. (Conserve and Protect)
7. Provide leadership, support, and coordination for educating the public about wildfires in Kentucky. (Conserve and Protect)
8. Enhance and improve wildfire law enforcement programs. (Conserve, Protect, and Enhance)
9. Maintain and enhance the statewide system of forest fire protection and suppression as required by KRS 149.520 (Conserve, Protect, and Enhance)

In order to reduce the impact and spread of the many forest pests and diseases, an educational component encompassing more extensive training on these pests for forestry staff and other resource managers as well as the general public is an important strategy. The strategy also develops a comprehensive monitoring, tracking, mapping, and threat classification system. The development of this database will allow landowners and resource managers to identify the greatest threats in their area and implement proper planning and treatment techniques. Since some invasive plants are still sold by garden shops, and other invasives such as exotic insects are transported through firewood, efforts to suppress the spread of these pests will focus on such actions. To encourage the effort toward suppression, cost-share opportunities for those engaging in

control techniques will continue to be offered, while searching for additional programs by which to extend such opportunities.

With the increased emphasis on recreational trail use, the forest health strategy also focuses on the proper management, design, and planning for these trails such that impacts to the forest will be limited. Tactics such as training trail enforcement officers on forest health monitoring and distributing trail educational materials should aid in minimizing the effects of trail impacts while encouraging the use of the forest resources.

Reforestation and afforestation in urban and post-mining areas provide opportunities to extend ecosystem services to previously impacted areas. Increasing the urban tree canopy coverage through tree planting will provide important air quality benefits along with the monetary incentives associated with the developing carbon market. Likewise, reclamation of previously mined land to forested land use provides an opportunity to restore the American chestnut and renews the timber resources, wildlife habitat, and aesthetic appeal of the land.

Four of the forest health goals focus on wildfire prevention, education, and enforcement. In order to reduce the high rate of arson, law enforcement is necessary. Increased arson investigation and courtroom training are also necessary, as well as a strong media campaign using all available mediums. To address the high-risk areas for wildfire damage, objectives and performance measures will focus on establishing or improving fire prevention plans for communities and providing materials to fight fires. Education on the scope of the damages caused by wildfires is proposed to reduce the needless impacts to our valuable forest resources. An overall fire suppression plan with improved equipment and staffing is needed to continue to suppress the high number of fires in the state.

The primary resources necessary for addressing the forest health strategy are listed as follows: Kentucky Division of Forestry, Forest Health Program, University of Kentucky Forestry Extension, The Forest Health Research and Education Center, Kentucky Invasive Plant Council, Kentucky Forest Health Task Force, Local Tree Boards and Rural Planners, Kentucky Department of Fish and Wildlife Resources, Office of Kentucky Nature Preserves. *(Please see full partners list at the end of this section.)*

Cumulatively, the nine recommended strategies for addressing the Forest Health Issue supports the national objectives to conserve, protect, and enhance the state's forest resources.

C. Issue 2: Water Quality and Quantity Strategy

Forest resources play a key role in improving water quality and stabilizing the water quantity in Kentucky. With 62% of the rivers and streams and 42% of the lakes, ponds, and reservoirs of Kentucky showing some sort of water quality impairment, there are numerous areas in which additional forest resources could improve the water quality of the Commonwealth. Forested riparian areas, forested wetlands, and large forest blocks provide the greatest opportunities to improve water quality, but every individual tree, particularly in urban settings, can provide important benefits to water quantity and quality benefits.

Five goals have been devised in order to capitalize on opportunities and combat the threats associated with the effects of forests on Kentucky's water resources:

1. Ensure timber harvesting operations employ measures to maximize water quality protection.
(Conserve, Protect, and Enhance)

2. Improve Kentucky water quality through the protection, enhancement, and restoration of forested riparian areas. (Conserve, Protect, and Enhance)
3. Reduce rate of variation in stream flow and volume with forestry practices. (Conserve and Protect)
4. Improve Kentucky water quality through the protection, enhancement, and creation of forested wetlands. (Conserve, Protect, and Enhance)
5. Increase the public awareness of the relationship between forestland use and water quality and quantity. (Conserve and Protect)

Proper timber harvesting practices are important to limit the impairment caused to waterbodies when harvesting does occur. Under the Kentucky Forest Conservation Act of 1998, the KDF is required to inspect commercial timber harvesting operators for the appropriate use of BMPs. Because proper implementation rates are lower than desired, increased funding and staff will be necessary to increase the rate of inspection, increase logger education, and pursue enforcement actions.

Increasing the riparian forest resources of Kentucky will be a key part of the strategy to improve water quality through forested resources. Assessing the current width of the riparian areas against the ideal width based on the water use should aid in the targeting of funding to areas in the greatest need of improvement. Especially in urban areas, improvements in the riparian zone may greatly reduce the effects of stormwater runoff by slowing the water velocity and filtering pollutants.

Because forest loss and conversion are the greatest causes of stream flow and volume variations, efforts to stabilize the water quantity will focus on minimizing loss and increasing forested area through reforestation and afforestation.

Principally in the Big Rivers Corridor, Forest Legacy Area, but also in other areas, water quality may be improved through the increase in the forested wetland acreage. The strategy involves efforts to support the creation, restoration, enhancement, or protection of wetlands.

The last element of the water quality and quantity strategy focuses on education. Since many landowners, managers, and planners are unaware of the relationship between forests and water, public education should further the awareness of the need and the benefit of forest resources. The primary resources necessary for addressing the water quality and quantity strategy are listed as follows: Kentucky Division of Forestry's Timber Harvesting Compliance Program, Kentucky Best Management Practices Advisory Board, Kentucky Forest Industries Association, Kentucky Woodland Owners Association, Kentucky Division of Water, University of Kentucky Forestry Extension, Kentucky Division of Conservation, and the Kentucky Agriculture Water Quality Authority. *(Please see full partners list at the end of this section.)*

The five proposed strategies to address the Commonwealth's water quality and quantity issue support the national objectives to conserve, protect, and enhance the forest resources within the state.

D. Issue 3: Forest Loss and Fragmentation Strategy

Addressing forest loss is important to protecting the resources of the Commonwealth. Considering that only 28% of the forest resources are large interior forest blocks, strategies must also focus on preventing the further fragmentation of the remaining forest resources of Kentucky. In order to curtail fragmentation and loss in Kentucky, seven goals have been developed. These goals address the major causes of forest loss, including conversion to urban, agricultural, and mining as well as the process of fragmentation.

1. Reduce or minimize the impact of forest loss from urban development. (Conserve and Enhance)

2. Enhance and protect existing forested areas in the urban landscape. (Conserve, Protect, and Enhance)
3. Increase acres of forests in urban areas. (Conserve and Enhance)
4. Increase forest cover on reclaimed mined land. (Enhance)
5. Reduce or minimize the impact of forest loss and fragmentation due to agricultural conversion. (Enhance)
6. Increase acres of protected forestlands. (Conserve, Protect, and Enhance)
7. Protect or minimize the impact of fragmentation on large forest blocks. (Conserve, Protect, and Enhance)

Since urban development continues to expand along with population growth, three of the goals in this strategy are focused on urban loss and fragmentation. Particularly in wildland-urban interface areas, planning should incorporate the forest resources and the benefits they provide through forest canopy assessments and the use of LiDAR (Light Detection and Ranging) technology for measuring canopy cover and structure. Many urban areas in small and larger communities would benefit from inventories of existing resources and improved management. Increasing canopy cover in urban areas through planting, as well as maintaining large tree cover through best practices, will also be an important goal.

Much of the mined land in Kentucky is forested prior to removal of the mineral resources. Thus to prevent forest loss, a key goal is increasing the number of acres restored to forested land use as part of reclamation. Promotion of the Appalachian Regional Reforestation Initiative (ARRI) and the use of the Forestry Reclamation approach, a five step mine reclamation process for efficient reclamation, are important practices in accomplishing this goal.

To address the losses and impacts due to agricultural conversion, the strategy focuses on the promotion of economic advantages of conversion of marginal agricultural land to forested land. Additionally, restoration of agricultural lands to forest will be focused in areas in which connectivity between other forested areas is maximized. Minimizing agricultural conversion and increasing riparian forest buffers are also important objectives.

Two goals are aimed specifically at combating the threats of fragmentation. Protection of forestland through conservation easements and land acquisition aims to provide long-term connectivity of forestlands. Minimizing the extent of fragmentation aims to reduce the overall effect of fragmentation when it is inevitable.

The resources needed to address the forest loss and fragmentation strategy are listed as follows: Kentucky Division of Forestry Legacy Program, urban and rural planners, Urban Forestry Councils, Daniel Boone National Forest, Land between the Lakes, Kentucky Department of Fish and Wildlife Resources, municipal governments, non-profit tree planting organizations, and neighborhood associations. *(Please see full partners list at the end of this section.)*

The seven recommended strategies to address forest loss and fragmentation, support the national objectives to conserve, protect and enhance our forest resources.

E. Issue 4: Forest Management Strategy

Although forests cover about half of the land of Kentucky, the value of this resource is often overlooked or under-utilized. With a high percentage of private family ownership and a low percentage of these owners

engaging in purposeful management, the forest management strategy focuses on education, outreach, and encouragement of management for whatever use is desired by the owner. Five goals in forest management have been developed, with numerous measurable objectives and performance measures associated with each goal. Many of the objectives associated with these goals were developed at the Governor's Summit on Forestry, and thus include the plans of a broad scope of forestry stakeholders.

Forest Management Goals:

1. Publicize the value of Kentucky's forest resources and the benefits of proper management. (Conserve, Protect, and Enhance)
2. Promote the efficient, sustainable, and environmentally sound economic utilization of Kentucky's forest resources for forest products and environmental services. (Enhance)
3. Enable private family forest owners to enhance their stewardship potential through technical and financial assistance. (Conserve, Protect, and Enhance)
4. Establish and build local urban and community forestry programs. (Conserve, Protect, and Enhance)
5. Monitor forest management levels in Kentucky to identify trends, needs, benefits, and threats. (Conserve, Protect, and Enhance)

The low rate of private family forest management demonstrates a need to publicize the value of Kentucky's forests and how management increases these benefits. Through the development of a comprehensive communication message and delivery plan along with development of community-level forestry organizations, increasing education, and promoting achievers, it is anticipated that numerous owners will increase their management and planning.

As Kentuckians recognize the value of our forests, many landowners are expected to begin or increase management for economic gains from forest products or environmental services. Efforts will focus on encouraging such use through sustainable and environmentally sound practices, particularly in conjunction with the emerging demands for ecosystem services and alternative energy sources but also in other markets. The KDF and its partners will seek to increase the technical and financial assistance available to private family forest owners by increasing the forester capacity, cost-share assistance, and the access to native species for plantings.

Because urban land use is expanding, forest management in urban areas will become increasingly important in the future. Therefore, numerous performance measures are aimed at increasing the tree canopy coverage in urban areas and increasing or enhancing the management of these resources.

The last component of the forest management strategy focuses on monitoring the threats to management and the gains accomplished through management. Such monitoring will provide feedback to redirect future management efforts.

The main resources needed for the forest management strategy are listed as follows: University of Kentucky Forestry Extension, Kentucky Woodland Owners Association, NRCS, Kentucky Forest Industries Association, Kentucky Tree Farm Program, Kentucky Department of Fish and Wildlife Resources, Kentucky Association of Consulting Foresters, Kentucky Division of Conservation, urban forestry councils, and local tree boards. *(Please see full partners list at the end of this section.)*

The five recommended forest management goals support the national objectives of conserve, protect and enhance our forest resources.

F. Issue 5: Funding Strategy

Investments in Kentucky forests are an investment in Kentucky's future. In order for the Commonwealth's forest resources to continue to provide the vast environmental, economic, and social benefits for the state, the nation, and the world, investments must be made into our forests. With increasing demands on the resource for ecosystem services and the potential explosion of woody biomass needs, management of Kentucky's forests is paramount to ensure the sustainability of the resource.

Funding support should be driven by one goal – proper forest management that results in a healthy, productive forest ecosystem that is the source of long-term sustainable revenue and benefits to all of Kentucky. While the forest uses and their associated benefits are varied and necessary, proper forest management driven by sustainable development will lead to the creation of reliable income to landowners and in turn increased tax revenues. These revenues will promote woodland wildlife habitat, improved water quality, recreational opportunities from an aesthetically pleasing forest, and numerous other benefits to the state and local communities. Due to the great diversity in end-users of forests and the variety of products derived from them, opportunities for investment in our forests are as abundant as the benefits they may yield. Forest users run the gamut from industrial to recreational and include timber companies, sportsmen, wildlife enthusiasts, hikers, and other outdoor recreational enthusiasts.

Sufficient staffing levels will enable the KDF to address the need for more forests and the increased need to protect forests from exotic pests and diseases, wildland fire, mismanagement, and improper timber harvesting. Kentucky will need a strong Division of Forestry to educate landowners, the general public, and industry so they can make wise decisions for the future of our forest resources, recognize and respond to the threats, and provide technical assistance. Because forest funding is a long-term investment, tactics to address funding needs must include not just immediate needs but sustainable long term needs.

The funding required to address the threats, opportunities, and research needs associated with forest health, water quality and quantity, forest loss and fragmentation, and forest management have each been addressed. However, cumulatively these funding needs, combined with the funding required to accomplish other mandated responsibilities of KDF and its partners, limit their ability to meet the needs of Kentucky's forests and forest owners.

Financial assistance to forest landowners is often necessary to support proper management practices. Economic incentives are often the most effective way to promote new markets such as woody biomass and alternative energy markets. Cost share assistance programs target afforestation, reforestation, timber stand improvement, enhancement of poorly stocked stands, practices designed to improve seedling survival and growth, and other practices needed to sustain the long-term productivity of all forest resources while providing additional environmental benefits including improved water quality, air quality, and wildlife habitat. State and federal funding is necessary to continue the delivery of cost-share assistance and economic incentives.

Funding is also necessary to allow the KDF, other state agencies, organizations, and private individuals to provide technical assistance to forest landowners. Forester positions are essential to the division's mandate of providing for the protection and enhancement of private forestlands. Though KDF has experienced losses of funding and personnel, the total number of landowners continues to increase; more communities are requesting assistance with Firewise and urban forestry needs; the growing importance of forests for energy and other environmental benefits has become recognized; and more invasive forest insects, diseases, and plants threaten our borders. Thus, KDF's ability to provide effective one-on-one technical assistance to

address these needs becomes a greater challenge. With an expanding workload, the KDF has considered other partners such as the Kentucky Association of Consulting Foresters, University of Kentucky Cooperative Extension Service and Kentucky Department of Fish and Wildlife Resources, Division of Conservation, USDA Natural Resources Conservation Service, Kentucky Farm Bureau, Kentucky Woodland Owners Association, and others to reach the more than 467,000 forest landowners across the Commonwealth.

In addition to financial and technical assistance to landowners, funding is also necessary to provide for the protection of forestland and property from wildfires, acquisition of land for conservation, maintenance of land from the effects of natural disasters, and numerous other demands and mandates. While the demands for funding are numerous, the strategy to address funding involves only one goal: Provide sufficient and dedicated funding to ensure Kentucky's forests meet the diverse end-uses of its citizens through sustainable forest management. This single goal has been divided into three objectives based on funding sources: increase in federal funding, state funding, and funding from other sources. Establishing a financially stable forestry agency will certainly assist in meeting the national objectives of conserving, protecting, and enhancing the Commonwealth's forest resources.

G. Primary Agencies and Partners

In an effort to build collaboration on forestry issues with Kentucky, the forest resource strategy identifies numerous agencies and partners for collaboration on individual objectives. In order to conserve space, these agencies and organizations are identified by the following acronyms in the tables that follow:

ACCF	American Chestnut Cooperators' Foundation
ACE	United States Army Corps of Engineers
ADD	Area Development District
APA-KY	American Planning Association, Kentucky Chapter
APHIS	United States Department of Agriculture Animal and Plant Health Inspection Service
AgDB	Agriculture Development Board
ARRI	Appalachian Regional Reforestation Initiative
AWQA	Landowners under jurisdiction of Agricultural Water Quality Act
BLM	Bureau of Land Management
BMP Board	Forestry Best Management Practices Board
COT	Kentucky Commonwealth Office of Technology
DAH	Kentucky Division of Administrative Hearings
DAML	Kentucky Division of Abandoned Mine Lands
DAQ	Kentucky Division for Air Quality
DBNF*	Daniel Boone National Forest
DEP	Kentucky Department for Environmental Protection
DHS	United States Department of Homeland Security
DMRE	Kentucky Division of Mine Reclamation and Enforcement
DOC*	Kentucky Division of Conservation
DOD	United States Department of Defense
DOE	United States Department of Energy
DOI	United States Department of the Interior
EEC	Kentucky Energy and Environment Cabinet
EKU	Eastern Kentucky University
EPA	Environmental Protection Agency

FEMA	Federal Emergency Management Agency
FSA*	Farm Services Agency (US Department of Agriculture)
GOV*	Kentucky Office of the Governor – Agriculture Policy
HLCF	Kentucky Heritage Land Conservation Fund
IRS	Internal Revenue Service
KAA	Kentucky Arborist Association
KACD	Kentucky Association of Conservation Districts
KACF*	Kentucky Chapter of Association of Consulting Foresters
KACo	Kentucky Association of Counties
KCED	Kentucky Cabinet for Economic Development
KDAg*	Kentucky Department of Agriculture
KDE	Kentucky Department of Education
KDF	Kentucky Division of Forestry
KDFWR*	Kentucky Department of Fish and Wildlife Resources
KDOW*	Kentucky Division of Water
KDP	Kentucky Department of Parks
KDR	Kentucky Department of Revenue
KDT	Kentucky Department of Travel
KFA	Kentucky Firefighter's Association
KFB	Kentucky Farm Bureau
KFHTF	Kentucky Forest Health Task Force
KFIA*	Kentucky Forest Industries Association
KLC	Kentucky League of Cities
KML	Kentucky Master Loggers
KNLA	Kentucky Nursery & Landscape Association
KOEP	Kentucky Office of Energy Policy
KRC	The Kentucky Resources Council
KREC	Kentucky Rural Energy Consortium
KRTA	Kentucky Recreational Trail Authority
KSBA	Kentucky School Board Association
KSU*	Kentucky State University
KSP	Kentucky State Police
KTFC	Kentucky Tree Farm Committee
KUCFC	Kentucky Urban & Community Forestry Council
KWOA*	Kentucky Woodland Owners Association
KY-EPPC	Kentucky Exotic Pest Plant Council
KYTC	Kentucky Transportation Cabinet
LBL	Land Between the Lakes National Recreation Area
MACED	Mountain Association for Community Economic Development
NASF	National Association of State Foresters
NGO	Non-Government Organization
NKY-UCFC	Northern Kentucky Urban & Community Forestry Council
NPS	United States National Park Service
NRCS*	Natural Resources and Conservation Service
NWCG	National Wildfire Coordinating Group
OLS	Energy and Environment Cabinet - Office of Legal Services
OIG	Office of the Inspector General

OKNP*	Office of Kentucky Nature Preserves
OSBD	Office of State Budget Director
OSMRE*	Office of Surface Mining Reclamation and Enforcement
RD*	Rural Development (US Department of Agriculture)
PVA	Kentucky Property Valuation Administrator
SAF-KY*	Society of American Foresters, Kentucky Chapter
SGSF	Southern Group of State Foresters
SGSF-SUM	Southern Group of State Foresters Environmental Services, Utilization, and Marketing Committee
SKH	Save Kentucky's Hemlocks
TACF	The American Chestnut Foundation
TNC*	The Nature Conservancy
UK*	University of Kentucky
UL	University of Louisville
USFS*	United States Forest Service (US Department of Agriculture)
USFWS*	United States Fish and Wildlife Service

* **Denotes Stewardship Coordinating Committee member within NRCS State Technical Committee**

2020 – 2030 Kentucky Forest Resources Strategy

Issues, Goals, Objectives, and Performance Measures

Issue 1: Forest Health Strategy

Goal 1: Reduce the spread of invasive plants, insects, and diseases through improved monitoring, management, and education.

- **Objective 1.1:** Develop training opportunities and provide educational materials on forest health issues for partners, natural resource managers, researchers, the general public, and agency staff
 - **Performance Measure 1:** Continue collaboration with partners to maximize efforts to educate others about forest health threats in Kentucky
 - **Performance Measure 2:** Seek unique opportunities and platforms to address forest health
- **Objective 1.2:** Encourage increased collaboration on forest health issues between state, federal and non-government agencies and industry in Kentucky.
 - **Performance Measure 1:** Support the Kentucky Forest Health Task Force and other partners in their forest health efforts
 - **Performance Measure 2:** Support meetings between various agencies in an effort to promote increased sharing of knowledge and advice on forest health management
- **Objective 1.3:** Monitor for invasive plants, insects, and diseases.
 - **Performance Measure 1:** Continue traditional surveying and monitoring efforts across the state while developing specialized projects for new or potential forest health threats
 - **Performance Measure 2:** Pursue additional tools and technologies to increase efficiency in monitoring and reporting forest health threats
 - **Performance Measure 3:** Encourage collaboration with other agencies to increase surveying efforts and sharing of data of issues across the state and on state owned land
 - **Performance Measure 4:** Collaborate with researchers to increase production of new methodologies for identifying and confirming forest health threats
 - **Performance Measure 5:** Pursue additional funding sources in an effort to increase forest health staffing and resources
- **Objective 1.4:** Further develop a database on forest health issues in Kentucky
 - **Performance Measure 1:** Increase data and knowledge transfer of forest health threat occurrences
 - **Performance Measure 2:** Increase the use of current invasive species distributions to inform future management decisions
- **Objective 1.5:** Promote and implement activities that reduce or slow pest movement

- **Performance Measure 1:** Continue educational opportunities that highlight the harm and negative impacts of spreading invasive species through moving firewood and other human activities
 - **Performance Measure 2:** Engage in new and progressive options for limiting the sale of known invasive species
 - **Performance Measure 3:** Work with partners to develop emergency action plans for new highly destructive invasive species that could possibly impact Kentucky
 - **Performance Measure 4:** Work with partners to promote invasive plant lists and educate consumers about select invasive plants in an effort to reduce their sale
 - **Performance Measure 5:** Seek innovative means of delivering information to the public regarding invasive species movement
 - **Performance Measure 6:** Collaborate with partners to pursue policy development and outreach regarding restricted use and spread of invasive species
- **Objective 1.6:** Develop and continue cost share programs focusing on forest health management
 - **Performance Measure 1:** Pursue options for creating new cost share programs that target forest health issues
 - **Performance Measure 2:** Continue providing assistance to landowners who apply for cost share and develop forest health management recommendations for forest stewardship
 - **Objective 1.7:** Develop a Kentucky forest health plan.
 - **Performance Measure 1:** Develop a plan with the Kentucky Forest Health Task Force that addresses current and potential threats, risk reduction measures, and continued management options.

Goal 2: Decrease the impacts on forests due to improper trail use, management, and design.

- **Objective 2.1:** Develop educational materials on proper design, management, and use and the effects of improper use on forest resources.
 - **Performance Measure 1:** Development of guidance and forest health educational materials concerning recreational management and trail development.
- **Objective 2.2:** Promote active planning and management of forests with recreational trail use
 - **Performance Measure 1:** Number of forestlands with recreational trail availability.
 - **Performance Measure 2:** Development of use classification standards and monitoring guidelines.
 - **Performance Measure 3:** Number of agencies and groups with trail oversight responsibilities trained to monitor forest health.

Goal 3: Reduce negative impacts of air pollution in urban areas.

- **Objective 3.1:** Address urban air pollution and promote urban tree plantings as a tool for mitigation

- **Performance Measure 1:** Promote the benefits of tree planting to improve air quality and to reduce the heat island effect, and guidelines for successful tree planting
- **Performance Measure 2:** Increase the urban tree canopy percentage with a focus on low tree canopy areas

Goal 4: Support forest health research projects.

- **Objective 4.1:** Pursue additional funding sources that could assist with research projects
- **Objective 4.2:** Assist in collaborative projects that aim to address specific forest health issues
 - **Performance Measure 1:** Promote relevant and under-studied forest health issues for research consideration among regional researchers
 - **Performance Measure 2:** Offer field assistance by helping to initiate and monitor research projects
- **Objective 4.3:** Promote and implement research findings into management activities within the agency
 - **Performance Measure 1:** Increase awareness of forest health related research findings and share relevant management strategies with Branch offices

Goal 5: Promote reforestation opportunities on post-mining land.

- **Objective 5.1:** Restore previously mined land to healthy forest conditions using the Forest Reclamation Approach.
 - **Performance Measure 1:** Number of blight resistant American chestnut seedlings planted on reclamation sites annually
 - **Performance Measure 2:** Acres and percentage of reclamation plans that include ARRI reforestation as post-mining land use
 - **Performance Measure 3:** Maintain the Division of Forestry Tree Nurseries.

Goal 6: Enhance comprehensive wildfire mitigation efforts in Kentucky to lessen the impact of wildfires in Kentucky.

- **Objective 6.1:** Assist community leaders and community representatives with planning wildfire mitigation efforts.
 - **Performance Measure 1:** Number of community CWPP within state.
 - **Performance Measure 2:** Amount of sub-grants awarded for mitigation efforts.
- **Objective 6.2:** Coordinate and participate in hazardous fuel reduction efforts.
 - **Performance Measure 1:** Acreage mitigated by utilizing prescribed fire as a tool.
 - **Performance Measure 2:** Amount of control lines constructed for prescribed fire.

- **Performance Measure 3:** Number of structures protected.

Goal 7: Provide leadership, support, and coordination for educating the public about wildfires in Kentucky.

- **Objective 7.1:** Develop and implement educational wildfire mitigation programs geared toward the youth demographic.
 - **Performance Measure 1:** Number of school wildfire mitigation programs conducted.
 - **Performance Measure 2:** Number of youth attendance at wildfire mitigation programs.
 - **Performance Measure 3:** Amount of prevention material purchased.
- **Objective 7.2:** Develop and implement educational wildfire mitigation programs for communities.
 - **Performance Measure 1:** Number of community wildfire mitigation programs conducted.
 - **Performance Measure 2:** Number of citizens in attendance at wildfire mitigation programs.
 - **Performance Measure 3:** Amount of prevention material purchased.

Goal 8: Enhance and improve wildfire law enforcement programs.

- **Objective 8.1:** Partner with other state law enforcement agencies to bolster law enforcement resources.
 - **Performance Measure 1:** Number of employee hours paid for by Division of Forestry for partnering agencies assisting with law enforcement.
 - **Performance Measure 2:** Annual contract in place for law enforcement assistance from partnering agencies.
- **Objective 8.2:** Provide increased fire investigation and law enforcement training for Kentucky Division of Forestry employees and partnering agencies.
 - **Performance Measure 1:** Number of Division of Forestry employees trained in fire investigation, courtroom procedures, and/or law enforcement
 - **Performance Measure 2:** Number of partnering agency employees trained in fire investigation, courtroom procedures, and/or law enforcement

Goal 9: Maintain and enhance the statewide system of forest fire protection and suppression as required by KRS 149.520

- **Objective 9.1:** Provide KDF employees enhanced fire suppression and Incident Command System (ICS) training.
 - **Performance Measure 1:** Number of employees trained in fire suppression and ICS.
 - **Performance Measure 2:** Number of employees trained at TN/KY Academy.
 - **Performance Measure 3:** Number of KDF trainers delivering fire suppression trainings.

- **Objective 9.2:** Provide KDF employees ample opportunities to gain fire suppression and ICS experience outside of KDF operations to increase firefighter capabilities.
 - **Performance Measure 1:** Number of employees participating in fire suppression details outside of KDF operations.
- **Objective 9.3:** Upgrade and replace fire suppression equipment as identified and warranted.
 - **Performance Measure 1:** Regular upgrade and replacement of fire suppression equipment.
- **Objective 9.4:** Improve KDF fire operations to make them more effective and professional.
 - **Performance Measure 1:** Number of employees utilizing the latest digital programs for all aspects of fire suppression.
 - **Performance Measure 2:** Number of employees with mobile hardware to support latest digital programs.
 - **Performance Measure 3:** Number of drones deployed within the state to bolster wildfire intelligence.

Issue 2: Water Quality and Quantity Strategy

Goal 1: Ensure timber harvest operations employ measures to maximize water quality protection

- **Objective 1.1:** Achieve improved rate of timber harvest operation compliance, strengthen enforcement laws and promote the Kentucky Master Logger Program.
 - **Performance Measure 1:** Increased percentage of timber harvests inspected.
 - **Performance Measure 2:** Increase the number of inspectors.
 - **Performance Measure 3:** Strength Penalties incurred by repeat bad actors.
- **Objective 1.2:** Maintain statewide BMP implementation monitoring program
 - **Performance Measure 1:** Plan for continual BMP implementation monitoring.
 - **Performance Measure 2:** Identification of funding for BMP implementation monitoring, Increase emphasis on BMP implementation through continuing education programs.
- **Objective 1.3:** Continue and improve timber harvest inspector training to enhance effectiveness
 - **Performance Measure 1:** Revision of inspector training courses based on monitoring results to improve enforcement activities.
- **Objective 1.4:** Support the Agriculture Water Quality Authority
 - **Performance Measure 1:** Performance of BMP implementation study.
 - **Performance Measure 2:** Development of plan based on implementation results.

- **Objective 1.5:** Review Forestry Best Management Practices, strengthen the Kentucky Master Logger program and conduct additional SMZ studies.
 - **Performance Measure 1:** Report on findings and recommendations on BMP regulations

Goal 2: Improve Kentucky water quality through the protection, enhancement, and restoration of forested riparian areas.

- **Objective 2.1:** Increase acreage of rural forested riparian areas to enhance water quality.
 - **Performance Measure 1:** Assessment of current forested riparian resources.
 - **Performance Measure 2:** Development of water credit system.
 - **Performance Measure 3:** Acres of forested riparian area created, protected, or improved.
 - **Performance Measure 4:** Encourage the creation and improvement of forested riparian areas through cost-share programs.
- **Objective 2.2:** Reduce the degradation of the waters of the commonwealth caused by the occurrence of wildfires in riparian areas
 - **Performance Measure 1:** Number of wildfires in riparian zones
 - **Performance Measure 2:** Impact of fires on water quality degradation, minimize wildland fire suppression tactics and rehabilitation of fire lines using appropriate BMPs.
- **Objective 2.3:** Reduce the negative impact of urban and urban interface areas on water quality through the development and improvement of urban forests
 - **Performance Measure 1:** Development of guidelines for urban forested riparian area management
 - **Performance Measure 2:** Development of training program on riparian benefits on urban stormwater runoff.
 - **Performance Measure 3:** iTree Hydro analysis of an urban watershed
 - **Performance Measure 4:** Number of riparian tree plantings

Goal 3: Reduce the rate of variation in stream flow and volume with forestry practices.

- **Objective 3.1:** Minimize the conversion of forestland to non-forest uses.
 - **Performance Measure 1:** Number of conservation easements and facilitating the development of other revenue streams provided by forestland.
 - **Performance Measure 2:** Number of acres converted from forest to another land use
- **Objective 3.2:** Encourage reforestation and afforestation
 - **Performance Measure 1:** Number of conservation easements
 - **Performance Measure 2:** Forestland tax credit legislation
 - **Performance Measure 3:** Amount of cost-share funding available for forestation

- **Performance Measure 4:** Number of acres converted from another land use to forest

Goal 4: Improve Kentucky water quality through the protection, enhancement, and creation of forested wetlands.

- **Objective 4.1:** Increase acreage of forested wetlands
 - **Performance Measure 1:** Number of forested wetland acres
 - **Performance Measure 2:** Number of forested wetland acres created by cost-share programs, conservation easements and the planning of urban storm water planning/treatment by them.

Goal 5: Increase the public awareness of the relationship between forestland use and water quality and quantity.

- **Objective 5.1:** Target appropriate messages and education to the forest industry.
 - **Performance Measure 1:** Number of educational courses including water quality and quantity BMP implementation.
 - **Performance Measure 2:** Number of demonstration projects showing the benefits of proper implementation.
- **Objective 5.2:** Target appropriate messages and education to landowners and public officials.
 - **Performance Measure 1:** Number of urban forest management demonstration projects
 - **Performance Measure 2:** Development of educational materials for urban and rural landowners and public officials.
- **Objective 5.3:** Target appropriate messages and education to urban planners, watershed groups, and public works departments concerning water quality and quantity.
 - **Performance Measure 1:** Number of meetings with urban planners and watershed organizations
 - **Performance Measure 2:** Promote the use of green infrastructure.

Issue 3: Forest Fragmentation and Loss Strategy

Goal 1: Reduce or minimize the impact of Forest Loss from Urban Development

- **Objective 1.1:** Encourage and support urban planning that includes management of trees and forests within urban areas and those on the periphery.
 - **Performance Measure 1:** Number of Tree Canopy Assessments and Urban Tree Inventories.
 - **Performance Measure 2:** Number of urban tree assessments and community inventories.

Goal 2: Enhance, manage and protect existing trees and forested areas in the urban landscape.

- **Objective 2.1:** Assist communities in better managing their public trees and forested acres.
 - **Performance Measure 1:** Increase the number of communities with new or updated tree inventories.
 - **Performance Measure 2:** Increase the number of comprehensive plans or management plans that incorporate urban and community forests.

Goal 3: Increase acres of forests in urban areas

- **Objective 3.1:** Support and assist urban and community tree planting and reforestation events and awareness campaigns.
 - **Performance Measure 1:** Increase the number of urban or municipal acres reforested.

Goal 4: Increase forest cover on mined land.

- **Objective 4.1:** Promote innovative mine reclamation research, programs, and methods that include reforestation.
 - **Performance Measure 1:** Thirty percent annual increase in the number of acres reforested as part of mine reclamation.

Goal 5: Reduce or minimize the impact of forest loss and fragmentation due to agricultural conversion.

- **Objective 5.1:** Promote the conversion of marginal agricultural lands for woody biomass production and/or reforestation for carbon storage.
 - **Performance Measure 1:** Increase in the number of acres converted from agricultural classification to forest classification through tree planting.
- **Objective 5.2:** Maximize the benefits and success of reforestation efforts.
 - **Performance Measure 1:** Promote connectivity from one forested area to another.
 - **Performance Measure 2:** Prioritize support for larger-scale tree plantings.
- **Objective 5.3:** Minimize deforestation of forestlands for agricultural or herbaceous biomass production.
 - **Performance Measure 1:** Decrease in the number of acres converted from forestland classification to agricultural classification.
- **Objective 5.4:** Promote or enhance BMP regulations and incentives that result in a change of farming practices that protect or restore forest areas.
 - **Performance Measure 1:** Increase in forested buffer/riparian acres.

Goal 6: Increase acres of protected forestlands.

- **Objective 6.1: Work with partners to protect or assist in the protection of forestlands identified in the Forest Legacy Areas.**
 - **Performance Measure 1:** Number of acres protected via Forest Legacy Funds.
- **Objective 6.2:** Use existing funding sources such as Kentucky Heritage Land Conservation Funds (HCLF) or other sources to protect forestlands.
 - **Performance Measure 1:** Increase in forest acres protected with state funds
- **Objective 6.3:** Protect forestlands through the Agricultural Districts Program.
 - **Performance Measure 1:** Increase in forestlands enrolled in agricultural conservation programs.
- **Objective 6.4:** Expand funding mechanisms for forestland acquisition or conservation easements.
 - **Performance Measure 1:** Increase funds available for forestland acquisition and expand partnerships.

Goal 7: Protect or minimize the impact of fragmentation on large forest blocks.

- **Objective 7.1:** Reduce or minimize the impact of fragmentation.
 - **Performance Measure 1:** Reduction in forest land cleared for roads, utilities and other right of ways.
 - **Performance Measure 2:** Increase in right of ways converted to naturalized vegetation.

Issue 4: Forest Management Strategy

Goal 1: Publicize the value of Kentucky's forest resources and the benefits of proper management.

- **Objective 1.1:** Develop a unified public communication plan to publicize the value of Kentucky's forests on a state and regional level.
 - **Performance Measure 1:** Develop a Kentucky Forestry Initiative to serve as the unifying message in the promotion of forest management
 - **Performance Measure 2:** Inventory all existing forestry and forestry-allied communications and non-traditional partner platforms and work to incorporate the unified forestry messages in them
 - **Performance Measure 3:** Promote the development of a brand for Kentucky forest products
 - **Performance Measure 4:** Promote the value and opportunities of Kentucky's forest resources to interested industries within and outside of Kentucky
- **Objective 1.2:** Develop community-level forestry organizations to promote Kentucky's forests at a local level.

- **Performance Measure 1:** Number of local forestry organizations within the priority areas
 - **Performance Measure 2:** Number of landowners participating in Forest Stewardship Program educational programs
 - **Performance Measure 3:** Increase landowner participation in forest stewardship activities of publicly owned and privately owned forestlands by 10% over five years.
 - **Performance Measure 4:** Continue to promote the Forest Stewardship Program and cost sharing opportunities
- **Objective 1.3:** Increase public education on forest management.
 - **Performance Measure 1:** Development of a forestry education curriculum component for public education.
 - **Performance Measure 2:** Number of demonstration forests on public lands.
 - **Performance Measure 3:** Incorporate forestry education in the school system by aligning it with a core part of the curriculum and making it a component of teacher education
 - **Performance Measure 4:** Promote the creation of “Demonstration Forests” to showcase interactive rural and urban forest stewardship and to heighten public awareness
 - **Performance Measure 5:** Utilize existing rural and urban demonstration forests in providing public education
 - **Performance Measure 6:** Address public information needs such as: economic impact of forestry for wood products and ecosystem services and demand for Kentucky wood products
 - **Objective 1.4:** Recognize public and private forest management achievements.
 - **Performance Measure 1:** Promote the first annual Forestry Action Forum.
 - **Performance Measure 2:** Awarding of Forest Stewardship Award and Tree Farmer of the Year Award annually.

Goal 2: Promote the efficient, sustainable, and environmentally sound economic utilization of Kentucky’s forest resources for forest products and environmental services.

- **Objective 2.1:** Promote the expansion of existing and development of new sustainable forest industries in Kentucky.
 - **Performance Measure 1:** Number of new forestry industries or firms in Kentucky
 - **Performance Measure 2:** Encourage the expansion of Kentucky’s existing wood industry, concentrating on value-added industry, with mechanisms such as flexible financing opportunities, favorable insurance rates, market awareness, and tax incentives.
 - **Performance Measure 3:** Supply technical assistance to individual industries, specific segments of the industry, local, state and federal agencies, and to the general public in the following areas: Product marketing, timber resource availability, manufacturing residue management and utilization, equipment analysis, timber harvesting analysis and individual mill efficiency analysis
 - **Performance Measure 4:** Promote the value and opportunities of Kentucky’s forest resources to interested industries within and outside of Kentucky.

- **Performance Measure 5:** Continue involvement in region wide marketing of forest sector and facilitation of ecosystem services for private landowners.
- **Objective 2.2:** Promote the diversification of Kentucky’s forest economy to ensure economic and environmental sustainability while increasing the quality and quantity of wood products.
 - **Performance Measure 1:** Number of ecosystem service firms and amount of revenues
 - **Performance Measure 2:** Promote the regional 17 state white oak initiative.
 - **Performance Measure 3:** Promote tourism, outdoor recreation, biodiversity, clean air, clean water, wildlife habitat, and aesthetics.
- **Objective 2.3:** Promote the economic and environmental sustainability of Kentucky’s forests for meeting renewable energy needs through certification systems, utilization of biomass, and monetizing of ecosystem services.
 - **Performance Measure 1:** Number of landowners or acres of land with American Tree Farm Certification within priority areas
 - **Performance Measure 2:** Number of landowners known to be engaged in the marketing of their ecosystem services within the priority areas.
 - **Performance Measure 3:** Promote harvesting, biomass removal, and forest management practices that enhance the value and the sustainability of Kentucky’s forest resources
 - **Performance Measure 4:** Work to develop criteria for sustainable woody biomass.
 - **Performance Measure 5:** Promote opportunities for landowners and businesses to participate in the various certification systems and ecosystem services.
- **Objective 2.4:** Maintain and improve partnerships and communications with other state and federal agencies.
 - **Performance Measure 1:** Memoranda initiated between the KDF and other agencies.
 - **Performance Measure 2:** Number of joint forestry initiatives between Kentucky and its neighboring states.
 - **Performance Measure 3:** Pursue agreements with all state agencies that directly or indirectly affect forest resources to review and coordinate policies to ensure the viability of Kentucky’s forest industry while protecting biodiversity, clean air, clean water, wildlife habitat, and outdoor recreation.
 - **Performance Measure 4:** Work with adjoining states in developing solutions for regional forest resource issues.

Goal 3: Enable private family forest owners to enhance their stewardship potential through technical and financial assistance.

- **Objective 3.1:** Provide the citizens of the Commonwealth information and education about the many environmental, social and economic benefits of managing the state’s forests.
 - **Performance Measure 1:** Number of acres of priority forests conserved and managed as “Working Forest Lands” and have actively been managed by partnerships and many

- stakeholders to mitigate major harm and threats to the forests in an effort to enhance the public benefits of the forest resource
 - **Performance Measure 2:** Number of landowners and acres of land with new or revised stewardship management plans within priority areas
 - **Performance Measure 3:** Number of new or revised Forest Stewardship Management Plans completed
 - **Performance Measure 4:** Number of landowners and acres of land participating in the state’s Forest Stewardship Incentives cost share program
 - **Performance Measure 5:** Cumulative acres covered by current Forest Stewardship Management Plans
 - **Performance Measure 6:** Cumulative acres in important forest resource areas covered by current Forest Stewardship Management Plans
 - **Performance Measure 7:** Number of landowners receiving Forest Stewardship Program technical assistance
 - **Performance Measure 8:** Develop and coordinate technical assistance to the citizens of the commonwealth through partnerships in implementing cost share programs:
 - **Performance Measure 9:** Develop the administrative regulations for the state’s Forest Stewardship Incentives Fund
 - **Performance Measure 10:** Continue with the Division of Forestry marking program for timber harvest and timber stand improvement practices
- **Objective 3.2:** Enhance and increase forester capacity within the Division of Forestry and outside of the agency to meet landowner demand in providing forestry technical assistance and stewardship management plans entering into cost share and certification programs.
 - **Performance Measure 1:** Number of forester positions or forestry technical service providers.
 - **Performance Measure 2:** Number of new or revised Forest Stewardship Management Plans completed.
 - **Performance Measure 3:** Obtain 50/50 cost sharing through a Cooperative Agreement for the Division of Forestry to obtain forester positions with Natural Resources Conservation Service.
 - **Performance Measure 4:** Consider a federal grant proposal for employing Federally Funded Time Limited positions as foresters for priority forest areas to address lack of agency capacity
- **Objective 3.3:** Promote afforestation and reforestation opportunities within rural and urban interface areas.
 - **Performance Measure 1:** Number of blight resistant American chestnut seedlings planted annually
 - **Performance Measure 2:** Number of farms employing agroforestry techniques.
 - **Performance Measure 3:** Number of trees planted in urban and rural landscapes.
 - **Performance Measure 4:** Maintain the Division of Forestry Tree Nurseries ability to produce tree seedlings for afforestation, reforestation and mine reclamation to meet current and future demand

- **Performance Measure 5:** Facilitate agroforestry techniques for developing riparian forest buffers
- **Performance Measure 6:** Maintain the use of native species in urban landscape plantings.

Goal 4: Establish and build local urban and community forestry programs.

- **Objective 4.1:** Enhance forest management and increase tree canopy coverage in communities and wildland-urban interface areas
 - **Performance Measure 1:** Number of communities in Tree City USA® within the priority forest areas
 - **Performance Measure 2:** Number of municipal and rural electric cooperatives are participating in Tree Line USA® within the priority forested area
 - **Performance Measure 3:** Number of universities are participating in Tree Campus USA® within the priority forested area
 - **Performance Measure 4:** Number of Firewise Communities within the priority forested areas and number of mitigation practices accomplished
 - **Performance Measure 5:** Continue outreach efforts to communities, nonprofit organizations, educational institutions and private landowners to promote proper urban forestry management
 - **Performance Measure 6:** Promote agroforestry within municipal watersheds to maximize water quality and quantity through riparian buffer establishment.
 - **Performance Measure 7:** Promote urban forestry and agroforestry techniques that control storm water runoff, connect forest fragments and improve wildlife habitat
 - **Performance Measure 8:** Work with communities in wildland fire prone areas to address risks of wildfire

- **Objective 4.2:** Provide urban forestry technical and financial assistance to interface citizens and local communities to maintain or enhance the social, economic and environmental benefits of community forests
 - **Performance Measure 1:** Communities with inventories and management plans within the priority area
 - **Performance Measure 2:** Assist communities in obtaining urban forestry resources critical in planning, management and sustainability of urban forests
 - **Performance Measure 3:** Continue to utilize urban forestry program specialists to enhance communities' internal capacity and knowledge for planning and managing urban forests
 - **Performance Measure 4:** Support tree boards with networking resources and leadership training
 - **Performance Measure 5:** Continue to promote annual tree board seminar
 - **Performance Measure 6:** Encourage the public, landscape industry, and municipalities to utilize a diverse variety of proper tree species in urban plantings
 - **Performance Measure 7:** Designate key Division of Forestry personnel within each district to become involved in local planning and zoning issues to provide technical assistance related to forest resources in local processes

- **Performance Measure 8:** Partner with communities in developing or updating their comprehensive plans

Goal 5: Monitor forest management levels in Kentucky to identify trends, needs, benefits, and threats.

- **Objective 5.1:** Monitor the commonwealth’s forests resource and management activities to ensure future sustainability and detect trends
 - **Performance Measure 1:** Maintain a positive growth-to-removal ratio while utilizing available forest resources for environmental, economic, and social benefits for all Kentuckians
 - **Performance Measure 2:** Increase the quality of Kentucky’s forests based on distribution of tree grades as indicated in Kentucky’s Forest Inventory and Analysis data
 - **Performance Measure 3:** Continue to support and utilize the Forest Inventory and Analysis program as a foundation of data for management performance
 - **Performance Measure 4:** Continue statewide monitoring of forest health threats and prioritize threats for funding opportunities
 - **Performance Measure 5:** Support forest stewardship plan monitoring and implementation to meet national forest stewardship program guidelines
 - **Performance Measure 6:** Promote the regional 17 state white oak initiative and develop demonstration areas.

Issue 5: Funding Strategy

Goal 1: Provide sufficient and dedicated funding to ensure Kentucky's forests meet the diverse end-uses of its citizens through sustainable forest management.

- **Objective 1.1:** Increase federal funding for Kentucky’s forest resources
 - **Performance Measure 1:** The amount of funding distributed to landowners by NRCS and FSA for forestry practices.
 - **Performance Measure 2:** Percent increase of federal funding received by the KDF through the USFS compared to federal fiscal year 2018.
 - **Performance Measure 3:** Amount of funding paid by NRCS to technical service providers for forestry practices.
 - **Performance Measure 4:** Amount of federal funding received by the KDF not including the USFS
- **Objective 1.2:** Increase state funding for Kentucky’s forest resources.
 - **Performance Measure 1:** Amount of state funds received for Kentucky Forest Stewardship Fund.
 - **Performance Measure 2:** Percentage of fines collected under the provisions of the Kentucky Forest Conservation Act.
 - **Performance Measure 3:** Amount of state funds distributed to forest landowners for the implementation of forestry practices.

- **Performance Measure 4:** Percent increase in state funds received by the KDF compared to state fiscal year 2018.
 - **Performance Measure 5:** Percent increase in personnel by the KDF compared to state fiscal year 2018.
 - **Performance Measure 6:** Percent increase in agency receipts by the KDF compared to state fiscal year 2018.
 - **Performance Measure 7:** Incentives established to encourage landowners to retain and manage their forestland.
- **Objective 1.3:** Identify other funding opportunities
 - **Performance Measure 1:** Amount of foundation funds received by landowners and the KDF for sustainable forest management.
 - **Performance Measure 2:** Amount of funding received by landowners and the KDF from sources other than federal or state.