The wildland fire figures used in this document reflect only those wildland fires for which the Division of Forestry responded. Wildland fires suppressed by rural fire departments (critical allies in the prevention and suppression of wildland fires) or other agencies including the USDA Forest Service are not included.

All photos used in this document are courtesy of the Kentucky Division of Forestry.

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I. Wildland Arson Task Force Members

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Department for Natural Resources

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Kentucky State Police

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Bell County Attorney

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Owsley County Sheriff

Patrol Captain Dennis Whitehead  
USDA Forest Service

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Executive Director Sandy Runyon  
Big Sandy Area Development District

Jim Funk  
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Bige Hensley  
Kentucky Farm Bureau Forestry Committee

Representative W. Keith Hall  
Kentucky House of Representatives

The Honorable Paul Thompson  
Floyd County Judge / Executive

Frank Fitzpatrick  
Floyd County Landowner

Bernie Andersen, Fire Management Chief  
Kentucky Division of Forestry
II. Executive Summary

Over half of Kentucky’s wildland fires are deliberately set. Wildland fires threaten a resource that provides $8 billion annually to the economy of the Commonwealth. Over the last decade, wildland fires have taken the lives of four firefighters and three citizens. Just within the last six years, 132 structures worth $550,000 and 15 homes worth $450,000 were destroyed. The seriousness of Kentucky’s wildland fire problem is easily seen in the increasing cost of suppressing these fires. In the past six years, the Kentucky Division of Forestry alone spent more than $20,109,000 in the suppression of wildland fires. (See the Actual Wildland Fire Cost chart on page 3.)

Costs incurred by the USDA Forest Service, local fire departments and state and local agencies increases this amount significantly. Of much greater impact, however, is the irreplaceable loss in value of our forest resource and the value added to our state’s economy by industries and businesses, including tourism and recreation, that are dependent on the forests. Our state cannot sustain losses of this magnitude year after year and assume there will continue to be a forest resource to provide for strong and viable forestry-related businesses and industries.

In an effort to find both short-term and long-term solutions to the wildland arson problem in Kentucky, Governor Ernie Fletcher announced formation of the Wildland Arson Task Force on December 10, 2005. The Task Force met monthly throughout the summer, and its findings and recommendations are contained in this report.

Recommendations

The Task Force recommends a two-fold approach to addressing the wildland arson problem in Kentucky. Law enforcement is a critical component. Positions and funding should be provided to the Division of Forestry to establish a law enforcement unit within the agency. By having trained law enforcement officers with proper equipment, the division can address the need to investigate and prosecute wildland arson. The Kentucky Revised Statutes must also be reviewed and amended to strengthen the penalties once arsonists are found and prosecuted.

A second key component is public awareness and education. The Task Force recommends funding be provided to the division to initiate a comprehensive media campaign. Education of local officials and prosecutors will strengthen support for addressing wildland arson. For a sustained long-term approach, these efforts must include a strong fire prevention program in Kentucky’s schools.

A complete list of recommendations begins on Page 7.

The members of the Wildland Arson Task Force thank Governor Fletcher for this opportunity to meet and discuss solutions to the wildland arson problem plaguing Kentucky. The Task Force welcomes the opportunity to discuss its findings with the Governor, his staff, and Environmental and Public Protection Cabinet officials.
## Actual Wildland Fire Costs

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<td><strong>TOTAL</strong></td>
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III. Background

Forests cover 47 percent of Kentucky’s land area (11,900,000 acres of forests) with forests in every county. Kentucky’s forest resources contribute substantially to the state’s economy and support an important industry. Kentucky has primary forest products industries such as commercial sawmills (stave, handle, and veneer mills, to name a few) in nearly every county of the state, and these industries account for 12 percent of the Commonwealth’s manufacturing jobs. A statewide forest industry pays Kentucky landowners more than $190 million a year for standing timber and generates over 37,000 jobs in the manufacture of primary and secondary forest products.

Kentucky’s forests provide other economic and social benefits as well. Millions of people rely on our forests for clean air and water, recreation, wildlife habitat, and a myriad of other benefits that are affected when wildfires occur.

Wildland fires endanger the citizens of Kentucky as well as firefighters and threaten thousands of homes, schools, and businesses each year. Additional impacts include:

* From 2000 to 2005 (six years), there were 8,628 wildland fires in the state. These fires burned 411,441 acres of private land, an area equivalent to a fire two miles wide on both sides of the road from Covington to Corbin along I-75.

* The leading cause of wildland fires in Kentucky is incendiary (arson) fires – fires set willfully, maliciously, or wantonly on the land of another. Wildland arson fires account for 3 of every 5 wildland fires in Kentucky.

* The worst year for wildland fires in the last decade in Kentucky was 2001. There were 167,327 acres burned, of which, 145,789 were attributed to arson.

* Fifteen homes and 132 structures were lost in the past six years due to wildfires. The division saved 959 homes and 2,398 structures that were immediately threatened by wildfires.

* Nearly 65 percent of the timberland in Kentucky contains sawtimber-size trees. Sawtimber-size trees are 12 inches or larger in diameter, capable of being harvested and sawn into lumber. Most large hardwood trees are not killed by a forest fire but are damaged at the base of their trunks (in the “butt log”), the most valuable part of the tree. This damage worsens throughout the remainder of the tree’s life, reducing on average, 60 percent of the timber’s value and as much as 75 percent. This is an average loss of 60 cents from every dollar’s worth of value that could have been generated by the undamaged timber. Today we are paying the price for fires that burned 25-30 years ago, and future generations will continue to pay.

* Deteriorated timber values by forest fires result in less money loggers can offer landowners for their timber. All too often, as a result of fire damage, a stand of timber cannot by sold due to the absence of sound, quality timber. The $190 million now paid annually to Kentucky forest landowners for standing timber would increase dramatically if the resource were free of fire damage.

* Hospitals in areas of high wildfire occurrence experience as much as a 25 percent increase in patient admissions due to wildfire smoke-related respiratory ailments.
IV. List of Presentations to the Task Force

Overview of the Problem
Leah W. MacSwords, Director, Division of Forestry, Department for Natural Resources

How it Has Been Historically Addressed
Bernie Andersen, Fire Management Chief, Division of Forestry, Department for Natural Resources

Overview of Clay and Pike County Arson Forums
Leah W. MacSwords, Director, Division of Forestry, Department for Natural Resources

Update on Current Law Enforcement Efforts by Kentucky State Police
Major Mitchell Bailey, Kentucky State Police

Tennessee’s Law Enforcement Program
Max Thomas, Tennessee Department of Agriculture’s Law Enforcement Unit

West Virginia K-9 Arson Program
Don Kelley and John Bird, West Virginia Division of Forestry

West Virginia K-9 Demonstration
Don Kelley and John Bird, West Virginia Division of Forestry

Why are Cases Rejected? How to Make a Good Arson Case
Mike Fox, Carter County Attorney

Overview of Current Kentucky Forest Fire Statutes
Laura Morrison, EPPC Office of Legal Services

Penalties for Arson-Caused Wildfires
Laura Morrison, EPPC Office of Legal Services

Marketing and Communications
Dan Renaud, Meridian Communications

Public Awareness and Education - Forest Industry
Grant Curry, Weyerhaeuser and Task Force Member

Environmental Education and KERA
Jennifer Turner, Environmental Education Specialist, Kentucky Division of Forestry, Department for Natural Resources
V. Key Issues

The Wildland Arson Task Force met five times and discussed various issues related to Kentucky’s wildland arson problem. These issues centered around three basic themes—law enforcement, public awareness and education. Experts in each of area were invited to make presentations and provide information for consideration. Key issues discussed included:

* Kentucky’s wildland fire problem and statistics about the number of fires, percentage of arson-caused fires, cost of fighting wildland fires, and dangers to human life and property from wildland fires.

* The need for a “total attitude change” by the public, communities, local leaders, prosecutors and landowners about the seriousness of wildland fires and the criminal nature of arson-caused wildland fires.

* The value of Kentucky’s forest resources and the impact of the forests on the state’s economy.

* Kentucky’s wildland fire laws and forest wardens.

* Increased law enforcement, prosecution, and penalties for wildland arson crimes.

* Other state agency law enforcement units—Department for Fish and Wildlife Resources conservation officers, Department of Parks rangers and USDA Forest Service law enforcement officers.

* Wildland arson law enforcement efforts in neighboring states.

* Comparison of structural arson and wildland arson.

* The relationship between rural structural firefighters and Division of Forestry wildland firefighters.

* Methods to increase the incentives for citizens who report wildland arson fires.

* Increased training for forest wardens in law enforcement techniques, crime scene preservation and wildland fire cause and origin.

* Training for structural firefighters in crime scene preservation and wildland fire cause and origin.

* Classroom instruction to Kentucky’s school children on the importance of our forests and the damage caused by wildland fires and arsonists.
VI. Recommendations

A. Law Enforcement

Kentucky has the highest rate of deliberately set wildland fires in the southern United States. These deliberately set wildland fires are commonly referred to as arson fires; however, under Kentucky Revised Statute 513, the definition of an arson fire is limited to structures. The Forest Protection Law, KRS 149.380, prohibits deliberately setting forest fires on land owned by another.

Many theories have been offered as to why people deliberately set wildland fires. Theories aside, wildland arson is a crime, and an arson-caused wildland fire must be investigated with the same level of skills and techniques used by all law enforcement agencies. As with any crime, evidence must be collected and preserved according to rules of evidence. Leads must be followed and witnesses interviewed in order to prepare a strong case for local prosecutors. Each wildland fire must be treated as a “crime scene” from the moment the report of fire is received so that valuable evidence is not lost during the fire suppression efforts.

1. Dedicated Law Enforcement Unit

Finding the wildland arsonist is difficult. Rarely are there eyewitnesses to these crimes, and evidence is often lost before it can be collected. People who may have information about the crime are reluctant to come forward for fear of reprisal.

It is important to begin an investigation as soon as possible, but unfortunately, in the critical first hours of a wildland fire, Division of Forestry firefighters are busy trying to control the fire before more acres are burned or structures lost. This also holds true for rural structural firefighters who are often the first responders to wildland fires. Division and structural firefighters lack the time and training to properly investigate wildland arson.

Without trained, dedicated employees, the division must turn to the Kentucky State Police, Kentucky Department for Fish and Wildlife Resources and local law enforcement officers for assistance. While the KSP, KDFWR and local peace officers are willing to assist, they cannot make wildland arson their highest priority.

The majority of Southern states have law enforcement units to investigate wildland arson fires. Employees assigned to these units have full peace-officer powers and the training to investigate wildland fire cause, preserve evidence, interview witnesses, make arrests and testify at trial. These states have seen a reduction in arson fires, and they attribute this reduction to the high visibility of their law enforcement units. Their citizens know that wildland arson fires will be investigated and the arsonists will be prosecuted. Citizen cooperation contributes to their success.
Although the division’s forest wardens have peace-officer powers, they are not traditional law enforcement officers in terms of training or equipment. There are, however, other state agencies in Kentucky that have employees who are trained peace officers. They include conservation officers in the Department for Fish and Wildlife Resources and park rangers in the Department of Parks. The Forest Service also has dedicated law enforcement units assigned to protect national forests and investigate wildland arson fires.

Forest wardens are first responders to wildland fire. The need for suppression overrides the need for law enforcement and limits their ability to investigate wildfires while they occur.

**The Task Force recommends:**

- Amend KRS 149 to create a law enforcement unit with full peace-officer powers within the Division of Forestry. Primary duties to include wildfire investigation and trial preparation.

- Establish the use of tracking dogs as an investigative tool by the law enforcement unit.

- Establish additional funding and positions for the unit including personnel, equipment and training to sustain a long-term commitment to law enforcement.

- Increase funding to allow the Division of Forestry to fill all vacant positions, which will restore first-responder positions across the state.

- Ensure that all division law enforcement officers receive the required peace officer training and meet physical fitness standards as established in KRS 15.382 and KRS 15.404.

**2. Aggressive Prosecution**

Deliberately setting a wildland fire is a Class D felony with a fine of not less than $1,000 nor more than $10,000 or imprisonment for not more than five years, or both. However, persons convicted of wildland arson seldom receive a sentence even close to the maximum. The likelihood of an arsonist being caught, coupled with the reluctance of local courts to impose stiff sentences, provides little or no deterrent to wildland arsonists. The statutes do not provide for an increase in penalties if the wildland arson fire results in the loss of structures, human injury or loss of life. In addition, the statutes do not provide for restitution to the property owner or other victims.

**The Task Force recommends:**

- Amend KRS 149.380 to define setting fire on land owned by another as wildland arson, or in the alternative, amend KRS 513 to add a definition for wildland arson and amend arson in third degree to include wildland arson.

- Hold gross negligence and wanton behavior to the same standard as intentional acts of arson. Amend KRS 149.380 (3) to remove the word “intent.”
• Require restitution along with suppression costs. Restitution payments should go into a special fund for wildland fire prevention.

• Tier the severity for penalties for wildland arson so that the penalty increases if structures are lost. Establish maximum penalties for wildland arson fires that cause injury or loss of life, especially if firefighters are injured or killed.

• Establish authority for the forfeiture of equipment and vehicles such as off highway vehicles (OHVs), all terrain vehicles (ATVs), trucks, etc. used on wildland arson fires. Proceeds from the sale of the equipment and vehicles will be used to support the work of the law enforcement unit.

• Establish training for all first-responding firefighters (Division of Forestry firefighters and local structural firefighters) on preserving the wildland fire crime scene.

• Provide training to all Division of Forestry firefighters on wildland fire origin and cause. Also make training available to local structural firefighters.

B. Public Awareness and Education

Wildland arson is not a victimless crime. Wildland arsonists set fires that threaten communities and individual property owners. The forest and grassland fires they set fill the air with thick smoke that affects the health of the elderly and people with respiratory problems and creates traffic hazards by reducing visibility. These fires put firefighters at risk of injury or death, and they can tie up valuable public resources. The cost to taxpayers for suppressing these fires runs into millions of dollars every year.

Yet, most of Kentucky’s citizens are unaware that we have a problem with wildland arson. Even residents of eastern Kentucky, where most wildland fires occur, do not understand that the fires are deliberately set, and deliberately setting a wildland fire is against the law.

Wildland fires have been part of this state’s culture since before the first settlers passed through Cumberland Gap. The first forest fire law was enacted in 1831. The statute set a $20 fine for setting a forest fire in certain counties. Early law makers recognized that forest fires could destroy houses, barns, and fences, and anyone who deliberately set a forest fire needed to be punished.
1. Media Campaign

The Wildland Arson Task Force recognizes that changing the cultural acceptance of wildland fires requires more than just telling people that wildfires are bad. Changing attitudes requires social marketing and will take time to yield results. It will require local leaders, residents and property owners to make a commitment to change. A strong public awareness program will enhance law enforcement efforts and bring about a reduction in the wildland arson rate.

- Create a major media/marketing campaign with a wildland arson prevention message to support law enforcement efforts. The campaign should include TV, radio, newspapers and magazines, Internet, billboards, and other means of spreading the message that wildland arson is a crime that hurts all Kentuckians.

- Hire professional media consultants to create and implement this campaign. Use paid advertising to distribute the wildland arson prevention message. Do not rely on public service announcements.

- Create a wildland arson prevention message as a cornerstone of the campaign. Convey the message that **Wildland Arson is not Acceptable**.

- Address wildland arson as a public safety and health issue.

- Develop partnerships with counties and require participating counties to provide monetary and in-kind services to the campaign in order to increase “ownership” of the campaign and to give counties a vested interest in addressing the wildland arson problem within their boundaries. (See Project Unite as an example.)

- Identify all areas for wildland fire research so results of the research can be incorporated into the campaign. Research would include economic loss of timber.

- Implement a targeted fire prevention effort in areas where communities are at risk for high fire occurrences.

- Establish positions and funding within the Division of Forestry for an organized wildland fire prevention program.
2. Local Officials and Prosecutors

In addition, local courts and prosecutors do not have a good understanding of the impact of wildland fires and the seriousness of arson-caused fires. With the knowledge that arson-caused wildland fires result in economic losses to forest landowners and communities, local prosecutors may be more willing to pursue these cases, and courts may be more willing to impose stiffer sentences to convicted wildland arsonists.

The Task Force recommends:

- Seek to raise the Target Arson reward to encourage more reporting realizing it is a program established by insurance companies and agencies for structural fires as well. Fund the State Arson Program already established within the Cabinet.

- Incorporate the Target Arson Hotline number in the media/marketing campaign and stress that reporting to the Target Arson Hotline can be anonymous.

- Educate county judge/executives, county and commonwealth’s attorneys, and other local officials about the impact of wildland fires and arson.

- Use the Firewise program and target communities at risk. The Firewise program is designed to give individuals and communities the necessary tools to protect people, property, and natural resources from wildland fires - before they start.

3. Schools

Changing attitudes and customs often starts with our children. Kentucky’s school children need scientifically valid information about the effects of wildland fires on our forests, wildlife, and communities. Students need to receive information about the dangers of arson fires and the damage these fires cause. The Kentucky Education Reform Act sets standards for the curriculum taught in our schools. Wildland fire is not presently an approved science curriculum.

The Task Force recommends:

- Work with the Department of Education to have wildland arson included in school curriculum relating to environmental education.