Florida Division of Forestry

presents

# Wildfire Safety

FLORIDA DEPARTMENT OF AGRICULTURE & CONSUMER SERVICES DIVISION OF FORESTRY

FLORIDA CERTIFIED WILDLAND FIREFIGHTER

NIE SCRIPPS Treasure Coast Newspapers
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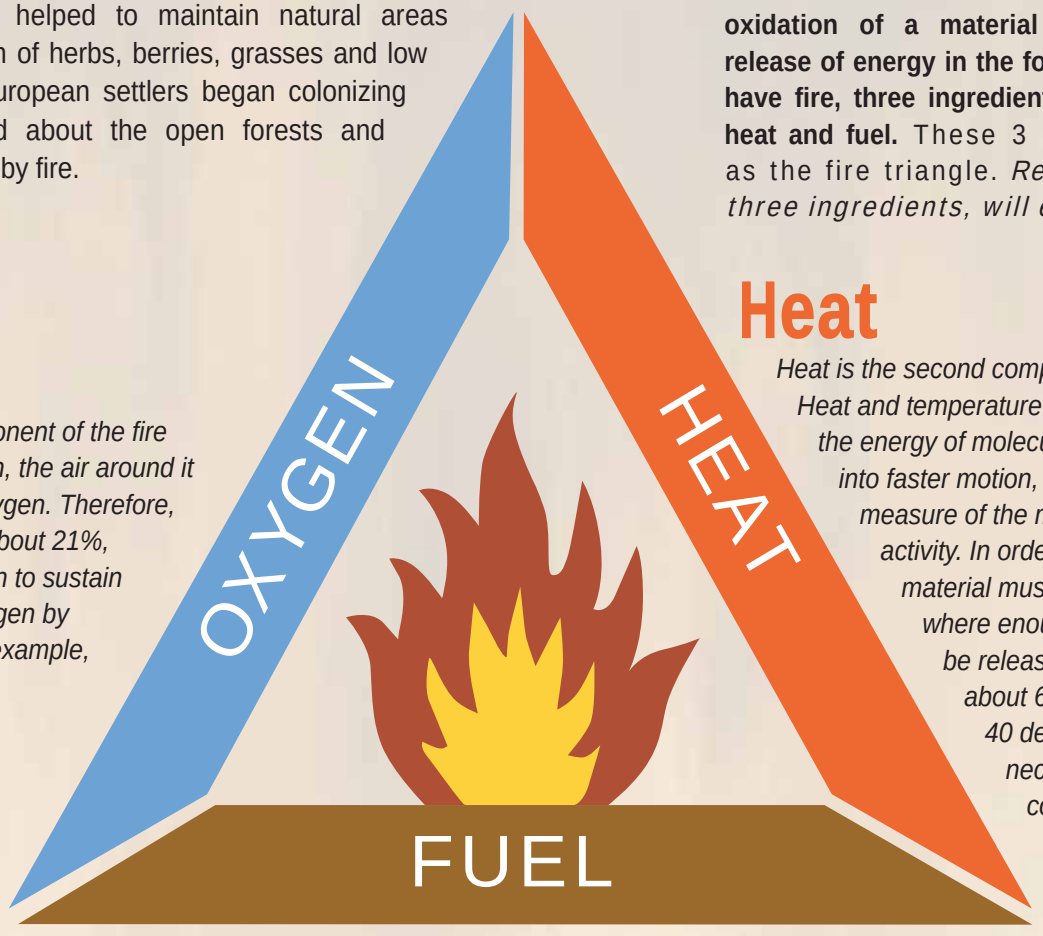
# Fire in Florida

Over 14.5 million acres of Florida is covered with forests. Although the state's abundant rain and sunshine are vital to the survival of Florida's forests, another element is necessary to maintain them...fire. Over thousands of years, Florida's forests have developed because of the presence of fire. In fact, many of Florida's ecosystems require fire in order to exist.

Fire has been present since the peninsula known as Florida emerged from the sea. Prior to the arrival of humans, weather conditions and fuels determined the occurrence of fires. When the first humans arrived in Florida over 10,000 years ago, their activities provided new ignition sources for fire. Along with periodic natural fires, Native Americans used fire as a tool to shape the environment and to improve hunting. Lightning fires and fires set by early humans helped to maintain natural areas conducive to the growth of herbs, berries, grasses and low shrubs. Later, when European settlers began colonizing Florida, they remarked about the open forests and grasslands swept clean by fire.

**Fire is a self-propagating chemical reaction known as combustion. It can be defined as rapid oxidation of a material accompanied by the release of energy in the form of heat and light. To have fire, three ingredients are needed: oxygen, heat and fuel.** These 3 elements are known as the fire triangle. *Removing any of these three ingredients, will extinguish a fire.*




## Oxygen

*Oxygen is the first component of the fire triangle. For a fire to burn, the air around it must be at least 16% oxygen. Therefore, Earth's atmosphere, at about 21%, provides plenty of oxygen to sustain a fire. Removing the oxygen by putting dirt on a fire, for example, smothers it.*

## Heat

*Heat is the second component of the fire triangle. Heat and temperature are closely related. Heat is the energy of molecules that have been excited into faster motion, while temperature is a measure of the magnitude of this molecular activity. In order for ignition to occur, plant material must be heated to the point where enough volatile compounds will be released for ignition to take place, about 655 +/- 72 degrees F (346 +/- 40 degrees C). The heat necessary to ignite a fire can come from many different sources, including human carelessness and lightning.*

## Fuel

*Fuel is the third side of the fire triangle. Fuel is any material capable of burning. In Florida, typically wildland fuels include litter (e.g., pine straw, dead leaves, twigs), grasses (e.g., wiregrass, cogon grass), shrubs (e.g., saw palmetto, gallberry), and trees (e.g., pine trees). Thus, the fuels in a Florida forest would include dried and dead materials, such as branches, grasses, leaves, and pine needles, as well as living grasses and shrubs, such as palmetto and gallberry and young pines. Many fire adaptive plants in Florida contain volatile resins that encourages fire spread through the ecosystem. Human structures can also become fuel for fire. It is important to understand that fire does not discriminate between different types of fuels: fire will burn any available combustible material in its path, even houses.*

# Take a Forest Break

**Learn about forest activities near you at www.visitmyforest.org**

# Three Steps to Protect Your Forest

## 1. Support Good Fires, Prevent Bad Ones

Prescribed fire is a safe way to apply a natural process, ensure ecosystem health, and reduce wildfire risk.
Prescribed fires, planned and professionally managed, clear underbrush and renew habitats. With prescribed fires, wildlife thrives and wildfires are prevented. See more about good fires in your area at **www.goodfires.org**.

## 2. Champion Conservation

Our forests provide clean water and air, essential natural resources and wildlife habitats. Do your part to champion the conservation of forestland. For seven simple ways you can help, visit **www.visitmyforest.org/conservation** .

## 3. Leave No Trace

Our forests are places of beauty and peace. You can help preserve the wonder of unspoiled nature by practicing Leave No Trace hiking and camping. Learn how at **www.lnt.org/programs/principles.php** .

# Fire in Florida's Ecosystem

Fire and water are among the primary forces shaping Florida's landscape. As Florida's climate changed over the eons, plant and animal species became adaptive. Some of Florida's species provide clear examples of adaptations to fire. For example, southern pine trees have thick bark that insulates the inner, living tissue from fire's heat. Longleaf pine is so fire resistant that mature trees usually escape the injurious effects of low-level fire and become seed trees for the reforestation of new openings in the burned area. The Ocala sand pine exhibits another adaptation for coping with fire: the "serotinous" cones remain closed until a fire's intense heat opens the cones and allows the seeds to fall on fresh soil exposed by the passing fire. Seeds of many plants grow best under the conditions created by fire—exposed mineral soil, increased nutrients provided by ash, and open areas with plenty of sunlight.

Animal life also depends on fire. The gopher tortoise, whose burrows provide habitat or shelter for hundreds of other species, is dependant on periodic fire to provide fresh browsing vegetation. Without fire, the scrub habitat changes; in overgrown scrub, plants create so much shade and leaf litter that the open, sandy patches disappear and so do the species that prefer them. Canopy closure reduces or eliminates habitat for Florida mice, pygmy mole crickets, scrub lizards, and sand skinks. Overgrown oaks produce fewer acorns for animals such as Florida scrub-jays, Florida mice, black bear and acorn weevils. The threatened Florida scrub-jay requires areas with open pine cover (less than 15%), where pine densities are kept low by frequent understory fires. The best vegetation for the jays consists of a mosaic of different age classes of scrub,

Photo: Arnold's Wildlife Rehabilitation Center, Okeechobee, FL

**A native burrowing gopher tortoise**

most of which have burned within the last 20 years. Without fire, the oaks become too tall and the habitat too dense for the Florida scrub-jay because predators are not easily seen.

**A native Florida scrub-jay**

The endangered red-cockaded woodpecker *(Picoides borealis)* inhabits longleaf as well as loblolly and shortleaf pine forests. Understory fires are essential to prevent the development of hardwood mid-story growth; without such fires, these birds will abandon their territory. Red-cockaded woodpeckers today are found predominantly in areas with a history of aggressive, prescribed burning. In addition, understory burning increases populations of arthropods—many of which breed and feed in charred trees—likely aiding insectivorous loggerhead shrikes *(Lanius ludovicianus)* and American kestrels *(Falco sparverius)*.

**New life out of the ash, just a few days after a fire.**

During a fire, many species of small animals, such as ants, Florida mice, gopher frogs, mole crickets, and ox beetles, have ways to flee, or find refuge in an existing (gopher tortoise) burrow beyond the reach of the heat. Birds can easily fly away from the flames. Larger mammals, can often sense and easily out maneuver a fire.

Infrequent, devastating, high-intensity fires may destroy the tree canopy but they allow sunlight to bathe the forest floor and aid in the regrowth of new plants. These hot fires leave behind a nutrient-rich ash that feeds the new plants as they re-sprout. Since most surface vegetation is burned away, little or no competition for nutrients exists so young pine seedlings are able to establish easily and grow quickly. Scrub habitat regenerates rapidly after most fires. Larger mammals, such as deer love to eat the fresh regeneration of grass that occurs after a fire. The new grass buds that grow immediately after a fire are known as “ice cream species” of grass; they are the favorite grass for deer to eat. As the majority of a Florida panther’s diet consists of deer, any management activity that improves the deer population also improves the panther population.

**An egret feasts on insects as the bugs flee the nearby fire.**

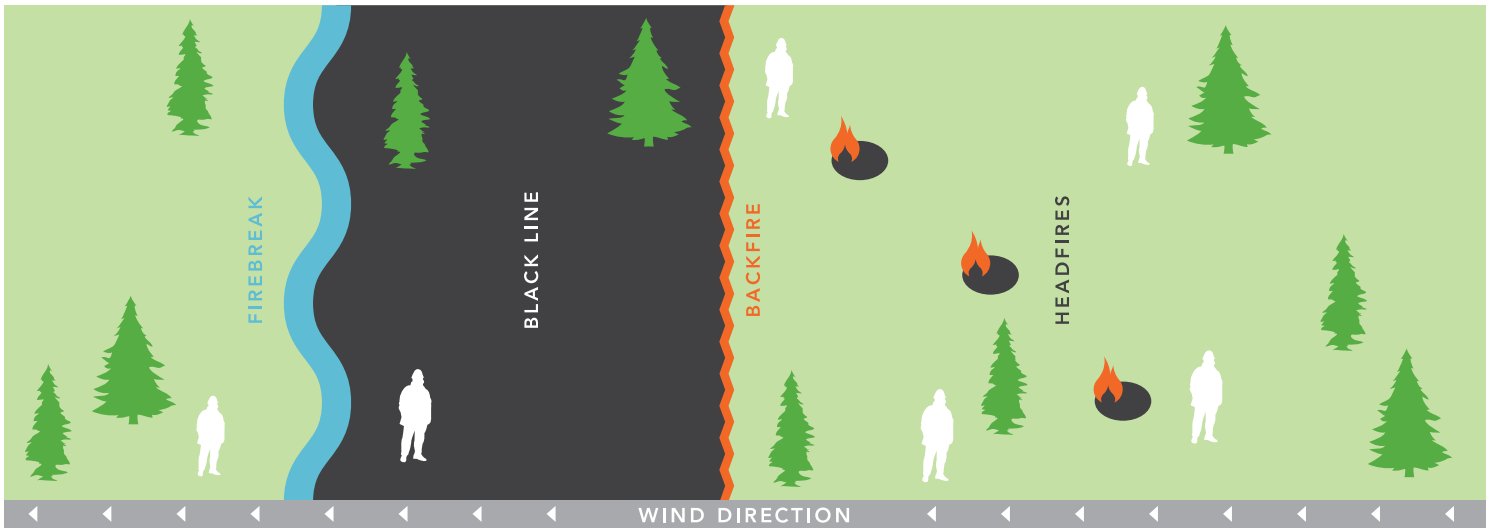
**A native Florida Key Deer**

# Prescribed Burning

Now that we know that many of Florida's native species will disappear unless fire is introduced back into the habitats, people in charge of preserving and maintaining natural areas are including prescribed burns as part of their management. Prescribed burns are intended to do three things: **1) mimic natural conditions, 2) maintain a variety of plant communities, and 3) decrease the amount of accumulated plant material** and thereby reduce the chance of devastating wildfires. A prescribed burn is not a one-time event, but a process that must be continually reapplied to the landscape.

Fire provides a coming-out party, complete with charcoal. The corollary principle is that, in the absence of fire, these plant species—and their animal dependents—may eventually become absent themselves. Burn managers and natural resource professionals work together to create a burn plan to get just the right combination of wind, weather and flames to have a useful/good fire.

## HOW PRESCRIBED FIRES WORK




1. Burn managers find a natural **firebreak**, such as a creek, or create one with a tractor and harrow.
2. A **backfire** is set downwind to create the **black line**, a burned area that will contain the prescribed fire.
3. When weather conditions are favorable, **headfires** are carefully ignited upwind so they will burn to the **black line**.
4. Crew members patrol throughout the prescribed burn to ensure the fire is contained.

**Only in the last century has fire in the forest been viewed as a monster. We are now beginning to realize that fire is a natural agent essential for maintaining the natural ecosystems of Florida. Fire is neither all good nor all bad. It is natural. It is powerful. In the proper places, in the right hands, at the right times, fire can be an asset and an ally. To employ fire as a useful friend is much more logical than confronting it as an enemy.**

# Florida Division of Forestry

The Florida Division of Forestry (FDOF) was founded in 1927 in response to uncontrolled wildfires that burned during the 1920s. The FDOF has the responsibility to prevent, detect, suppress and extinguish wildfires wherever they occur within Florida. The FDOF performs wildfire prevention through education and wildfire hazard mitigation programs. In addition to wildland firefighting, the Agency also manages 35 State Forests covering over 1,000,000 acres, provides urban and community forest assistance, and provides technical forestry assistance to private landowners.

The FDOF relies heavily on federal, state, and local partners to fulfill its statutory responsibility for wildfire prevention and suppression. Mutual aid agreements throughout the state mean that the county and/or municipal fire trucks frequently respond along with a FDOF firefighting unit. Although some fire lookout towers are still staffed on a seasonal basis, most wildfires in Florida are now reported by FDOF patrol aircraft or citizens who call 911.

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The Division of Forestry accomplishes its Mission to safeguard the lives and property of Florida's citizens by combining a unique array of equipment that enables it to attack wildfire and respond to other emergency needs—no matter what the terrain or location. This equipment also permits the Division to carry out our other land management responsibilities on public and private lands. The Division of Forestry has a long and distinguished record of of successful response to all types of emergency situations.

The Medium Tractor is the Division's primary on-the-ground firefighting piece of equipment. The tractors can plow down to mineral soil creating a 8'-10' wide fire break in most vegetation types in Florida. The tractor removes the fuel element of the fire triangle thus stopping an oncoming wildfire before it can reach homes, property and resources. The Medium Tractor enables the wildland firefighters to reach deep into the woods to suppress fires that are inaccessible by other means. It is also used as a wildfire prevention tool to assist landowners to create fire breaks on their land or to prepare the land for prescribed burning. This size tractor has also been used very effectively to clear roads following hurricanes.

The Brush Patrol (Wildland Fire Engine) is used for deep woods penetration in the direct suppression of wildfires and to protect structures in the wildland/urban interface. The Brush Patrol is also used as a standby unit during prescribed burning for landowners who utilize FDOF assistance programs, and for prescribed burning on state land. These special pumper units are fabricated at our Central Shop to meet our special firefighting requirements.

# Specialized Equipment for Florida's Wildfires

The Helicopter Fleet consists of seven medium (Bell UH1-H and 209) and two light (Bell OH-58) former military helicopters. Four UH-1H "Huey" or "SuperHuey" helicopters in the DOF fleet drop up to 300 gallons of foam or water, transport up to 10 firefighters, or aerially ignite prescribed burns. The OH-58A+ "Kiowa" light helicopters are used largely for aerial ignition prescribed burning, tactical counterfire, and observation, but also can carry a 75 gallon water bucket for fire suppression. The main responsibility of the helicopter is to allow ground units (tractors & brush units) to get closer to the fire by dropping water and/or fire retardant on the fire. The helicopters can also be used for structure protection. The helicopter can drop water on the home to protect it from fire brands or the wildfire itself.


## FDOF Fire Spotting

Florida Division of Forestry Airplane Fleet consists of 20 single-engine (Piper and Cessna) and 2 light twin-engine (Piper Navajo) airplanes. These airplanes are used to scout out wildfires and serve as "eyes in the sky" for firefighters on the ground. Smoke impedes ground crews and the airplanes circles the fire communicating to them hazards and fire weather.


A fire lookout tower, fire tower or lookout tower, provides housing and protection for a person known as a "fire lookout" whose duty it is to search for fire in the wilderness. The fire lookout tower or view shed, is a small building usually located on a high vantage point in order to maximize the viewing distance and range. From this vantage point, the fire lookout can see any trace of smoke that may develop, determine the location by using a device known as an Alidade, and call fire suppression personnel to the fire.

# More Specialized Equipment

## Mitigation

Drip Torch A drip torch is used to set backfires, burnouts, and prescribed burns. The drip torch consists of a resevoir of fuel attached to a nozzle. Fuel is dripped out of the nozzle and past an igniter, allowing flaming drops of fuel to hit the ground. These droplets start a fire in the area where they are deposited. Drip torches are commonly used to create a line of fire, and are much safer than alternatives such as dribbling fuel on the ground and then igniting it.

Roller Chopper A crawler tractor (bulldozer) with a metal drum and protruding metal shelves knocks down and cuts up flammable understory plants such as saw palmetto and gall berry. The shelves act as knives. Operators limit working within the drip line of pine trees to reduce stress to the trees. Roller chopping is essential in areas that have not had frequent fires where vegetation may grow to dangerous heights. Saw palmetto returns to extremely flammable levels within a few years unless it is knocked down and cut up, even after a fire. The debris quickly decomposes, provides room for plants and animals and keeps fires at more managable heights.


Mulcher Grinder Machines with toothed, rotating drums grind vegetation and create a layer of mulch that decomposes. The process is more costly than roller chopping but allows rangers to work closer to homes. The result is a layer of mulch that plants, roots and new seeds can easliy grow through. Areas quickly re-grow following the treatment.

# PPE: Personal Protective Equipment


Division of Forestry firefighters are equipped with special gear to keep them safe while fighting fires. This gear is called PPE.

1. **Wildland Helmet** – A lightweight, plastic helmet is designed to protect the head from blows and also offer some protection from the heat and flames.

2. **Eye protection** – Wildland Firefighters can wear a visor or safety goggles; these help to protect the wildland firefighter's eyes from smoke, dust, and small flying objects.

3. **Protective Clothing** – All personnel are required to wear "Nomex" protective clothing on all fire operations. Aramid fabric type two is fire-resistant, not fireproof. This is a durable fabric that provides good thermal protection. It will burn when exposed to flames, but stops burning when flames are removed. Instead of melting or burning to ash, it forms a char that helps protect skin. The yellow color is more visible in dark and smoky environments.

4. **Gloves** – Leather or Nomex gloves are designed to protect hands against blisters, cuts, scratches, and minor burns during fire operations.

5. **Fire Shelter** – It is the most important component of a wildland firefighter's personal protection equipment. A fire shelter is a safety device of last resort used by wildland firefighters when trapped by wildfires. It is designed to reflect radiant heat, protect against convective heat, and trap breathable air in an attempt to save the firefighter's life. The fire shelter fits inside a pouch and can be worn on the wildfire fighter's belt.

6. **Leather Boots** – All boots for wildfire suppression and field work are required to be leather lace-up boots with an eight-inch minimum height.

7. **Radio** – A radio is an essential component to ensure effective communication.

# Wildland Urban Interface

Over the past fifty years, more and more Floridians have moved out of the cities to build homes and businesses in the outlying areas known as the wildland urban interface. In fact, almost one-third of our population lives in these interface areas where structures intermingle with forests and wildlands. Residents here, however, usually don't realize they may live too "close to nature," they may, in fact, be living on the edge of a wildland fire disaster. When dry years come, Florida experiences severe wildfires—wildfires that destroy homes, disrupt people's lives and impact our economy.

## Why homes burn

**Wildland Urban Interface homes are usually lost because of the "little things" associated with the two most vulnerable parts of a home: the roof and the area immediately surrounding the structure.**

The most vulnerable part of the house is the roof and soffits. Wood shingles can easily catch fire from flying fire embers. Roofs with fire resistant shingles can also catch fire from embers if there is an accumulation of leaves and pine needles on the roof and in the gutters. Exposed eaves can allow fire embers into the attic and catch the roof on fire. Vinyl soffits are not recommended in fire prone areas unless they have backing of 1/8" noncombustible (wire) mesh. They melt easily and can allow fire embers into the attic area.

## 3 ways homes burn


**Direct Flame** The home burns because the woods carry the fire directly to the home.


**Radiant Heat** The home burns or has extensive damage because the home is too close to the woods and the heat transfers to the home.


**Fire Brands** This is the most dangerous, because fire brands can fly up to a 1/4 mile starting new fires ahead of the main fire. They land on roofs, in gutters, on dry dead grass, through open windows and underneath homes.

# When Wildfire Threatens

## Protecting Your Family and Property is as Easy as *"Ready, Set, Go!"*

## "READY" The Three Most Important Areas to Check at your Home

### The Big 3

**1**

### Your Roof

- Keep roof and gutters clean.
- Remove leaves, twigs, pine needles, palm fronds, and other debris.

**2**

### The Sides of Your House

- Use only plants that don't catch fire easily
- Keep mulch moist or consider non-flammable alternatives
- Don't stack wood or other combustibles against the sides of the house

**3**

### Within 30 feet of Your House

- Use only plants that don't catch fire easily
- Remove any burnable debris (leaves, twigs, palm fronds, etc.)
- Keep area mowed
- Keep area watered within guidelines of local water management

## Find out more.

Use these websites as resources to get answers to your questions to better protect your home.

Florida Division of Forestry
www.fl-dof.com

Florida Wildfire Prevention
www.floridawildfireprevention.com

Firewise Communities USA
www.firewise.org

Federal Alliance for Safe Homes (FLASH)
www.flash.org

The Institute for Business and Home Safety (IBHS)
www.disastersafety.org

Red Cross
www.redcross.org

Florida Disaster
www.floridadisaster.org

Smokey Bear
www.smokeybear.com

Local county emergency management sites
www.floridadisaster.org/County_EM/county_list.htm

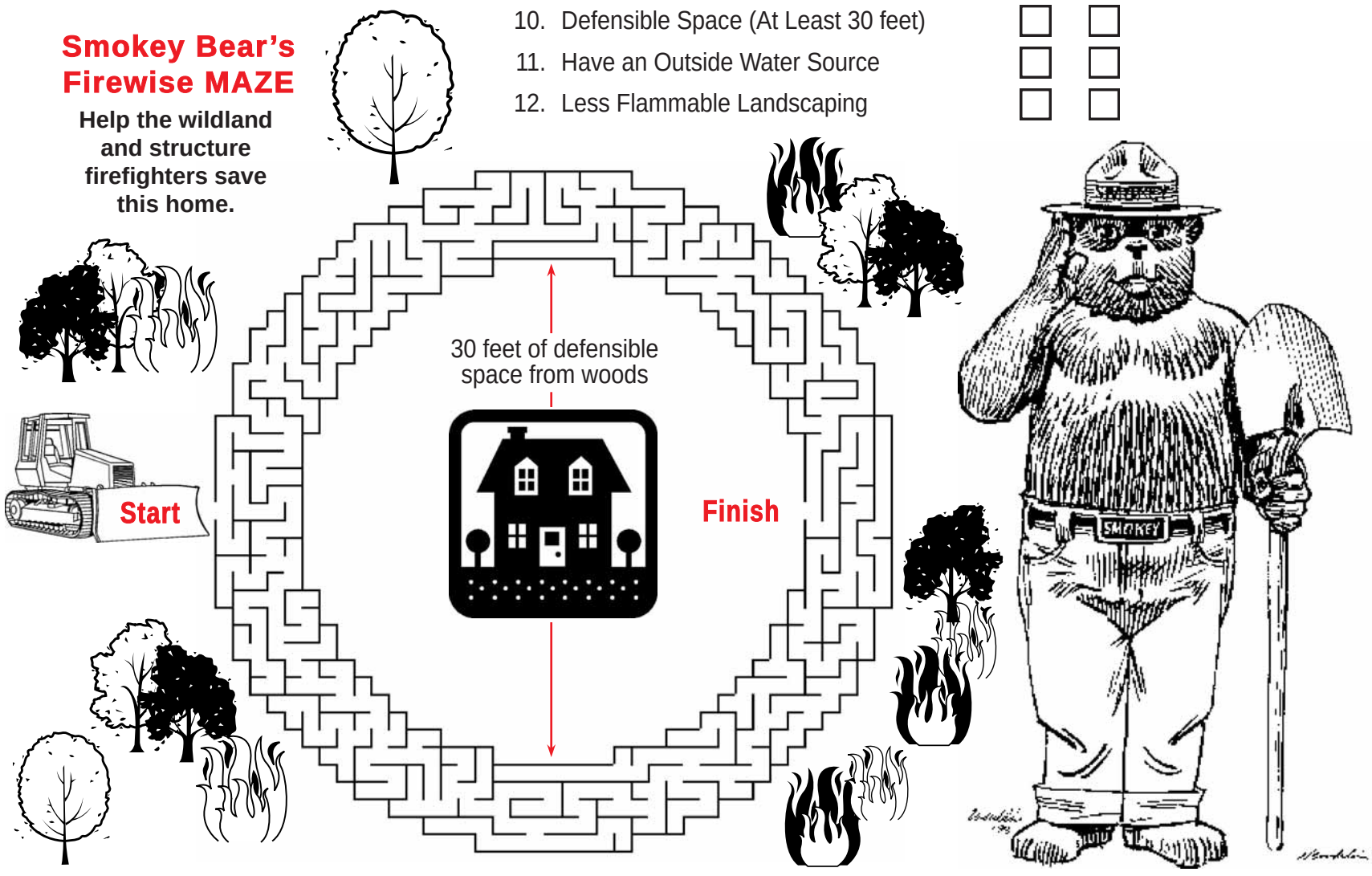
# Homeowner Wildfire Safety Check List

## "READY" (Continued)

| ✔ | Yes | No |
|---|---|---|
| 1. Roof Cleaned of Debris | ☐ | ☐ |
| 2. Gutters Cleaned | ☐ | ☐ |
| 3. Two Escape Routes | ☐ | ☐ |
| 4. Family Wildfire Plan | ☐ | ☐ |
| 5. Cleared Access to Home | ☐ | ☐ |
| 6. Address Clearly Marked | ☐ | ☐ |
| 7. Prune Tree Limbs | ☐ | ☐ |
| 8. Firewood Stored Away from Home | ☐ | ☐ |
| 9. Combustible Materials Away from Home | ☐ | ☐ |
| 10. Defensible Space (At Least 30 feet) | ☐ | ☐ |
| 11. Have an Outside Water Source | ☐ | ☐ |
| 12. Less Flammable Landscaping | ☐ | ☐ |

## Smokey Bear's Firewise MAZE

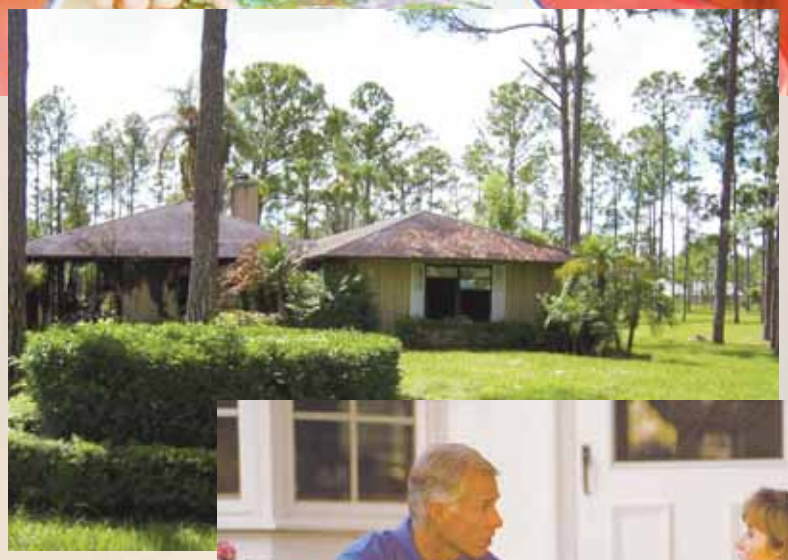
**Help the wildland and structure firefighters save this home.**



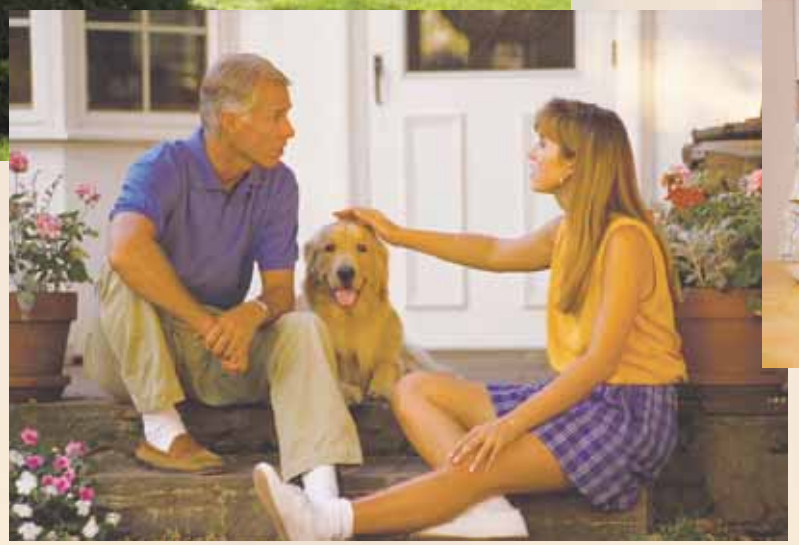
# Get Your Family Involved!

"SET"...

Getting your home ready to stand up to a wildfire is something the whole family can do by following some easy tips.



- Get your family together and use the **Homeowner Wildfire Safety Check List** on **page 12** to determine the wildfire risk at your house.
- For each item you check that puts your home at risk, talk with your family about how you can make that risk lower or eliminate it altogether.
- Have a family discussion about what you would do if there was a wildfire near your home – would you try and get home from school; would your parents come home from work; where would everyone meet; how do you get your pets out of the house; what would you need to have with you (medications, clothes, money, important papers, etc.)? Talk about everything you would need if you had to leave home for a few days. How would you know if you could go home or needed to stay away?
- When you have finished talking about the risks at your house, decide how you can lower them and what your evacuation plan looks like. Write everything down and be sure every member of your family has a copy and knows what it says and means.



# "GO!"

# When Wildfire Threatens

## Protect Your Family

- Evacuate all family members and pets.
- Include special items needed for infant, elderly or disabled family members and pets.
- Contact a friend or relative and let them know where where you are going.
- Tune in to a local television or radio station and listen for updates and instructions.
- Place valuable papers and mementos in the car.
- Wear protective clothing - sturdy shoes, cotton, or woolen clothing, long pants, a long sleeved shirt, gloves and a handkerchief to protect your face.
- Choose a route away from fire hazards. Watch for changes in the speed and direction of fire and smoke.

**Should your house be threatened by wildfire, you may be advised to evacuate by a fire or law enforcement official. Do not try to fight the fire yourself if you have been asked to evacuate the area.**

## Protect the Exterior of your home

**If you have time before you evacuate take these steps to protect your home:**

- Close all exterior doors and windows.
- Place combustible patio furniture in the house or garage.
- Shut off propane at the tank or natural gas at the meter.
- Make sure all garden hoses are connected to faucets and attach a nozzle set on "spray."
- Consider placing lawn sprinkler on the roof if water pressure is adequate. Do not turn on water until burning embers begin to land on the roof in order to conserve the water supply.
- Wet or remove shrubs within fifteen feet of the home.

## Protect the interior of your home

- Close all interior doors.
- Leave a light on in each room to increase the visibility of your home in heavy smoke.
- Remove lightweight and/or non-fire resistant curtains and other combustible materials from around windows.
- If available, close fire resistant drapes, shutters or Venetian blinds.
- Turn off all pilot lights.
- Move flammable furniture into the center of the home, away from windows and sliding glass doors.

# Arson. Real Bad Choice.

**Listen in. Three friends are having a conversation after school.**

Where has Anne been lately? I haven't seen her around.

Haven't you heard? She started that fire last spring and was charged with arson.

Arson? What's the big deal?

***Real*** **big deal!** The wildfire she set got out of control, and it damaged some homes. She didn't mean to do it, but it happened just the same. She went to court and they sent her to the detention center. She might be there for 5 years!

Wow! That <u>is</u> big! Well, at least she will have it behind her soon.

That's what I thought, but when I looked up what happened when you are convicted for a felony, it gets pretty scary.

What do you mean?

Well, even when she gets out, there are lots of things she might not be able to do again.

Like what?

Well, she won't be able to vote or take a gun when she goes hunting with her dad. She won't be able to go into the Navy to finish her education like she planned, because felons are not allowed into the military. And even worse, there are lots of jobs she won't be able to do because she won't be able to get the licenses she needs. I found lots of other consequences online.

Wow...she really got punished.

Yea—just to have some fun. Real bad choice! Not worth it!

Definitely <u>not</u> worth it!

## Woods Arson Penalty

✔3rd Degree Felony ✔5 Years in prison

✔$5,000 Fine

**Arson Alert Hotline:**

1-800-342-5869

Report Suspicious Fires

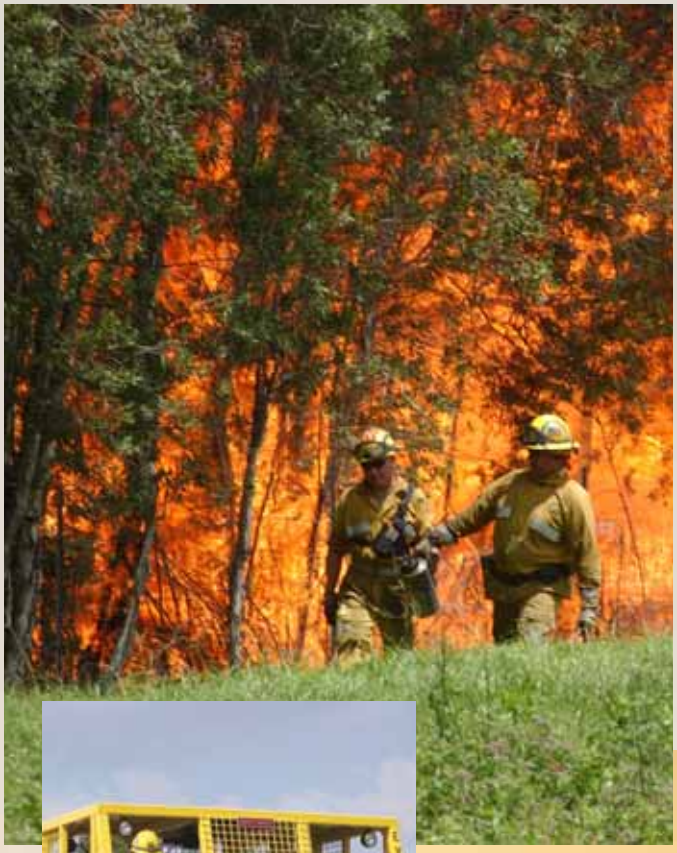
***Get up to a $5,000 reward for information leading to an arrest.***

# Working Together for a Common Goal

Response to wildfires in the State of Florida is primarily a partnership effort between the Division of Forestry and local fire agencies. Frequently, when a fire emergency occurs, the notification is processed through the local 911 emergency phone system. The local fire department responds and the Division of Forestry is notified. As the first responder, the local department may arrive on scene first and determine the need for forestry resources to continue. Depending on the location, the Division of Forestry, or the appropriate federal agency on federal property, may arrive first and determine the need for additional resources.

The Division of Forestry has statutory responsibility for all wildfires within the State of Florida. Local fire agencies have responsibility for fire protection within their jurisdictional boundaries. Using the National Incident Management System (NIMS) model, the first arriving agency assumes command of the incident. Command is then transferred as necessary as additional units or agencies arrive on the scene. In a working incident, the primary agency having responsibility for the fire will assume command of the operation after their arrival. When fires involve the interface between the wildland areas and the urban and suburban communities, there is joint responsibility to combat the spread of these fires by both the local agencies and the Division of Forestry. In these cases, all agencies must work together and support each other in a unified command operation to provide the most efficient use of resources.

On a wildfire, there could be over a hundred people working on one fire. Not all personnel are firefighters. There could be dispatchers, media experts, mechanics, accountants, meteorologists, police, local experts (on land, fuel, terrain, waterways, etc.), electrical and infrastructure experts and many more specialized individuals depending on the fire.



# Florida's State Forests

A state forest is an area of land that has trees growing in wild settings and is managed by the Florida Division of Forestry. The Division of Forestry manages over 35 state forests totaling over 1,000,000 acres across Florida. Many different people work on our state forests, including foresters, biologists, park rangers, and forest rangers to make sure that the forests continue to be healthy. State forests provide recreation for visitors with camping and horseback riding, homes and food for wildlife, clean drinking water, and trees to make paper and other products. In 2010, there were over 1,200,000 visits to Florida's state forests and parks.

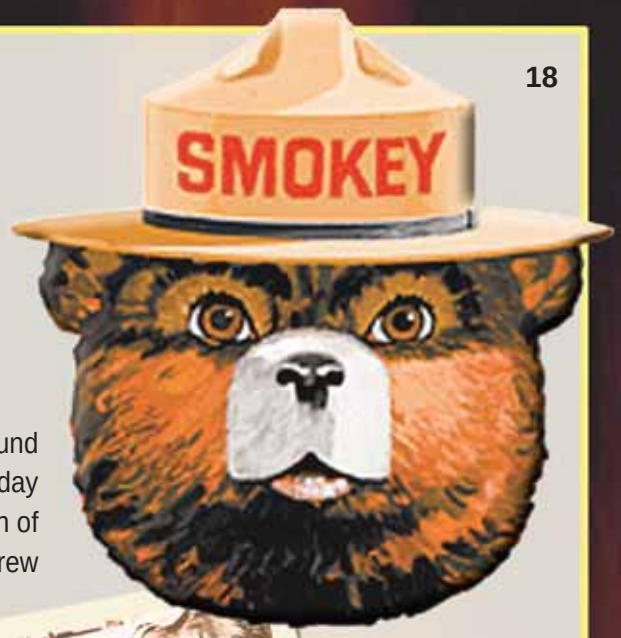
# Facts about Florida's Trees and Forests

- For every tree that is cut down, five new seedlings are planted in the state of Florida.
- The state's forests and forest products industries have a total annual economic impact of $16.5 billion, including 133,000 jobs.
- Over 5000 products that we use start from a tree. The list includes bandages, mulch, crayons, gum, ink, money, lumber, medicines, fruit, nuts, paint, paper and fuel to run our cars and trucks.
- Since 1987, the forestland base has decreased by 41,500 acres per year, with over 50% of the decrease associated with urban growth. Still, Florida forests cover more than 14.5 million acres - almost half the land area.
- The water you drink has most likely been filtered through a forest. Trees improve water quality by slowing and filtering rain water, as well as protecting aquifers and watersheds.
- 75% of Floridians live in towns and cities. Urban trees do many important jobs for us including providing shade, cooling our homes, cleaning the air and producing oxygen.
- The amount of oxygen produced by an acre of trees per year equals the amount consumed by 18 people annually. One acre of trees removes up to 2.6 tons of carbon dioxide each year.
- There are only about a dozen species of palm trees that are truly native to Florida although nearly a hundred different types are cultivated and grown here. Sabal palm, also known as cabbage palm, is the state tree of Florida.
- More species of trees can be found in Florida than any of the lower 48 states. Over 290 tree species can be found growing in Florida, and Florida is home to over 95 champion trees, which is more than any other state.
- Florida's forests provide habitat for more than a hundred species of animals. Some are Threatened or Endangered, including Florida panther, black bear, key deer, Big Cypress fox squirrel, and red cockaded woodpecker.

**Foresters examine trees to look for good growth, insects, diseases, and need for fertilizer.**

**Equipment is used to harvest trees from Florida's forests and to transport them to the mills where paper and lumber are made.**

# The History of the real Smokey Bear




## Smokey rescued

Did you know that the real Smokey Bear was an actual baby black bear that was found alone, charred, and scared after a devastating wildfire burned through New Mexico? One spring day in 1950 in the Capitan Mountains of New Mexico, an operator in one of the fire towers to the north of the Capitans spotted smoke and called the location into the nearest ranger station. The first crew discovered a major fire being swept along the ground between the trees, driven by a strong wind. Word spread rapidly and more crews reported to help. Forest Rangers, Army soldiers, men from the New Mexico State Game Department, and civilian volunteers worked together to gain control of the raging fire. As soon as they contained the fire to one spot, the wind would push it across the lines. During one of the lulls in firefighting, a report of a lonely bear cub who had been seen wandering near the fireline was reported. The men left him alone because they thought the mother bear might come for him.

**To learn more go to www.SmokeyBear.com**


# And now, Florida...

## Meet “Rocco,”

**Florida Wildfire Prevention’s raccoon mascot!**



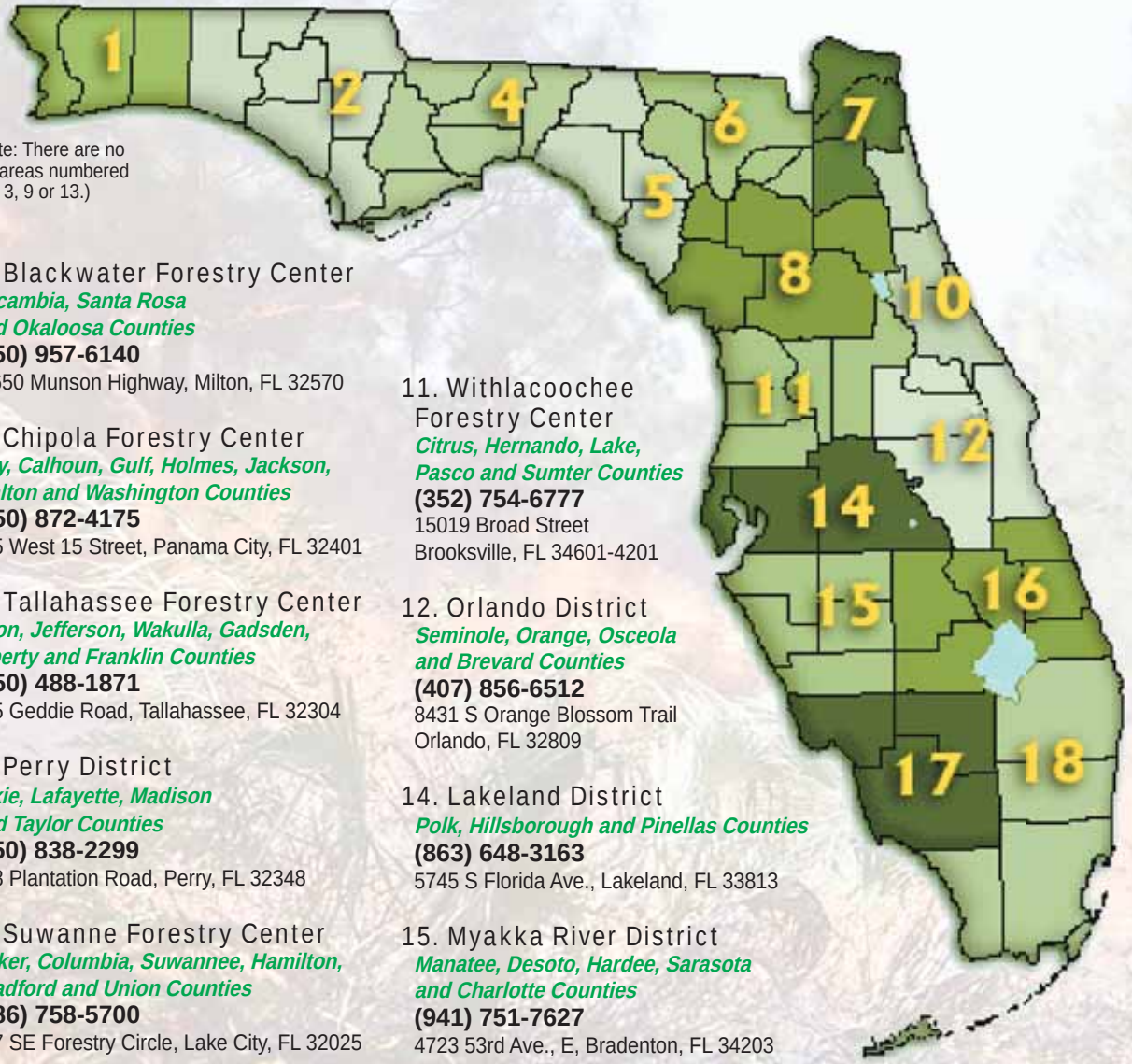
**Explore the Florida forest with Rocco on his fun and interactive web site.**

Go to www.floridawildfireprevention.com to find fun online activities that promote forest responsibility. Rocco teaches the importance of forest ecosystems in Florida, how to protect homes from disastrous wildfire, how to build and extinguish campfires and how fire inclusion and exclusion affects forests.

**Go to www.FloridaWildfirePrevention.com**

Florida Division of Forestry

# Field Unit Areas




(Note: There are no unit areas numbered 3, 9 or 13.)

1. Blackwater Forestry Center
*Escambia, Santa Rosa and Okaloosa Counties*
**(850) 957-6140**
11650 Munson Highway, Milton, FL 32570

2. Chipola Forestry Center
*Bay, Calhoun, Gulf, Holmes, Jackson, Walton and Washington Counties*
**(850) 872-4175**
715 West 15 Street, Panama City, FL 32401

4. Tallahassee Forestry Center
*Leon, Jefferson, Wakulla, Gadsden, Liberty and Franklin Counties*
**(850) 488-1871**
865 Geddie Road, Tallahassee, FL 32304

5. Perry District
*Dixie, Lafayette, Madison and Taylor Counties*
**(850) 838-2299**
618 Plantation Road, Perry, FL 32348

6. Suwanne Forestry Center
*Baker, Columbia, Suwannee, Hamilton, Bradford and Union Counties*
**(386) 758-5700**
137 SE Forestry Circle, Lake City, FL 32025

7. Jacksonville District
*Clay, Duval, and Nassau Counties*
**(904) 266-5001**
7247 Big Oaks Road, Bryceville, FL 32009

8. Waccasassa Forestry Center
*Alachua, Putnam, Gilchrist, Marion and Levy Counties*
**(352) 955-2005**
5353 NE 39th Avenue, Gainesville, FL 32609

10. Bunnell District
*Flagler, St. Johns and Volusia Counties*
**(386) 446-6785**
5001 US Highway 1, North, Bunnell, FL 32110

11. Withlacoochee Forestry Center
*Citrus, Hernando, Lake, Pasco and Sumter Counties*
**(352) 754-6777**
15019 Broad Street
Brooksville, FL 34601-4201

12. Orlando District
*Seminole, Orange, Osceola and Brevard Counties*
**(407) 856-6512**
8431 S Orange Blossom Trail
Orlando, FL 32809

14. Lakeland District
*Polk, Hillsborough and Pinellas Counties*
**(863) 648-3163**
5745 S Florida Ave., Lakeland, FL 33813

15. Myakka River District
*Manatee, Desoto, Hardee, Sarasota and Charlotte Counties*
**(941) 751-7627**
4723 53rd Ave., E, Bradenton, FL 34203

16. Okeechobee District
*Okeechobee, St. Lucie, Martin, Highlands, Indian River and Glades Counties*
**(863) 462-5160**
5200 Hwy. 441 North, Okeechobee, FL 34972

17. Caloosahatchee Forestry Center
*Lee, Collier, and Hendry Counties*
**(239) 690-3500 ext. 100 or 101**
10941 Palm Beach Blvd., Fort Myers, FL 33905

18. Everglades District
*Palm Beach, Broward, Miami-Dade, and Monroe Counties*
**(954) 475-4120**
3315 SW College Ave., Davie, FL 33314

## Teachers!

Contact your local Florida Division of Forestry to learn about fire prevention programs offered in your area. Go to www.fl-dof.com for more information.

Adam H. Putnam
Commissioner
Florida Department of Agriculture and Consumer Services

James Karels
Director
Florida Division of Forestry

FLORIDA DEPARTMENT OF AGRICULTURE & CONSUMER SERVICES
DIVISION OF FORESTRY