## Prescribed burns an integral part of successful forestry management

## Fire plays a vital role maintaining southern ecosystems

ву **RONNIE GRIDER** Forestry Specialist

Wildfires can be prevented by doing mitigation burns, where you conduct a prescribed burn on a piece of property before a wildfire has the chance to destroy it.

Such burns have been conducted at sensitive sites, such as the Audubon bird sanctuary on Dauphin Island. The bird sanctuary is located in the wildland/urban interface, where people's homes and nature converge, or sometimes collide, with each other.

With approximately 100 acres of pristine timber, hiking trails, boardwalks, beach and a beautiful freshwater lake, it is visited by tourists, nature lovers and bird watchers from across the country. This birding refuge borders the sugar white dunes of the Gulf of Mexico to the south, an RV campground with hundreds of campsites, most of them full, to the east and to the north and west are homes of varying values.

Prescribed burning should never be taken lightly but prescribed fire in close proximity to neighborhoods requires even more detailed planning, preparation, patience and skillful execution than usual. When you add in the extremely heavy fuel loading of this tract, the intensity goes through the roof.

Burn managers who put their name on burn plans and burn permits are responsible not only for the fire they light but also for the smoke it creates.

On Dauphin Island, planning included a meeting between all parties with a vested interest in the sanctuary and its surrounding property. The Audubon bird sanctuary is owned and maintained by the Dauphin Island Park and Beach Board, which requested a visit by the Alabama Forestry Commission to look over the property and discuss ways to limit the potential severity



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**Prescribed fire** is a safe way to restore a natural process, ensure ecosystem health and resiliency, and reduce wildfire risk.

of a future wildfire, such as the one in 2011.

The standing, dead timber is a reminder of the devastation that wildfire caused. Boardwalks that meander through the forest were turned to white ash and the local volunteer fire department lost a firefighting vehicle to the blaze. Luckily, no homes were destroyed and no one was injured. Both the homeowners association and the Dauphin Island Fire and Rescue Department welcomed the idea of a safer forest. Representatives of the Audubon birding community were also present at the planning meeting to voice their opinion on the burn.

The heavy fuels on this property include Chinese privet and tallow (both invasive species), smilax vines and saw briers (both considered ladder fuels), gallberry

and palmetto, with some highly volatile cogongrass thrown in for good measure.

These fuels are all draped in longleaf pine straw which has been falling and accumulating for decades. And to top it all off, the soil has a component of peat mixed in it. Dry peat will burn and smolder for days. Fuels this challenging affect the planning in many ways.

Things to consider include width of the control lines, size of the blocks to be burned, techniques used in the firing operation and the amount of personnel and equipment on site during the burn. Weather forecasts are studied, long-range and local.

Wind speed, direction, fuel moisture and days since significant rainfall are all considered. Also, onsite visits are made prior

to the day of the burn to confirm actual conditions forecasted.

The morning of the prescribed burn was cold, which was good because cooler temperatures helped keep the big timber from scorching. According to the test fire, the wind direction would be close to perfect, blowing the smoke out over the Gulf and away from the town and not allowing the flames to race toward any homes. The firing technique was simple — a backing fire all day.

The flames were kept as low and slow as possible. The guys patrolling the fire lines stayed vigilant and ate a lot of smoke. The debris being blown around from burning palmettos and vines can be alarmingly heavy but the humidity was still high enough to prevent ignition when embers floated across the lines. The guys kept hand tools and pumpers at the ready.

The local volunteer fire department staged their equipment close to the houses and were used in support.

The goal was to burn three small tracts on the property and two were finished. The burn went well.

Anyone who says they have never had any jumps on their burn hasn't done much burning. The real test is whether you're prepared for that spot-over or if you can handle a wind shift or a piece of equipment breaking down. Thorough preparation, careful planning and thoughtful execution can and most likely will be the difference between success and failure.

The adjacent landowners expressed their gratitude for the hazard of a potential wildfire being reduced.

Ronnie Grider is a Mobile County forestry specialist with the Alabama Forestry Commission. This story is reprinted from the Alabama Treasured Forests Magazine.

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