PRESCRIBED FIRE IN THE GULF
COASTAL ALABAMA AND MISSISSIPPI

WHAT IS PRESCRIBED FIRE?

Prescribed fire is a controlled, planned fire used for land management, primarily. Most prescribed fires are conducted to remove dead and overgrown vegetation in a timely and cost effective manner. Beneficial outcomes of prescribed fire include:

- WILDFIRE PREVENTION
- SUPPORTS GROWTH OF FIRE TOLERANT PLANT SPECIES
- WILDLIFE ABUNDANCE
- ACCESSIBLE FORESTS
- INCREASED HUMAN RECREATION
- INVASIVE SPECIES REDUCTION

DID YOU KNOW?

Prescribed fire is also known as a prescribed burn, controlled burn, controlled fire, and planned fire.

USING PRESCRIBED FIRE TO MANAGE LAND

1 YEAR BEFORE PRESCRIBED FIRE	1 WEEK AFTER PRESCRIBED FIRE	13 WEEKS AFTER PRESCRIBED FIRE

Credit: Grand Bay NERR Partners

PRESCRIBED FIRE

FOR LAND MANAGEMENT
CONTROLLED
MONITORED
PLANNED

VS

WILDFIRE

OUT OF CONTROL
UNPLANNED

PRESCRIBED FIRE REGULATIONS

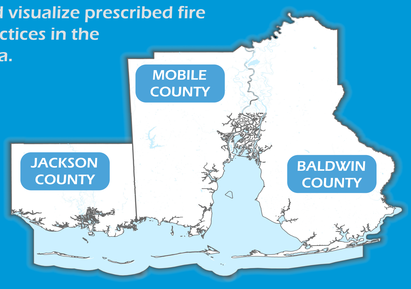
Prescribed fire is regulated. To control fire behavior and disperse smoke, environmental conditions must be met such as:

- WIND SPEED
- WIND DIRECTION
- RELATIVE HUMIDITY
- TEMPERATURE
- FUEL BUILD UP
- SMOKE SCREENING

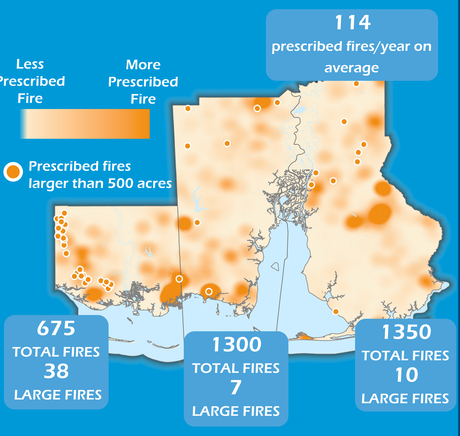
Prescribed fires are conducted with warnings to potentially impacted community members and are supervised by trained, permitted individuals. Trainings and permits are granted by local officials.

HOW DOES PRESCRIBED FIRE IMPACT YOU?

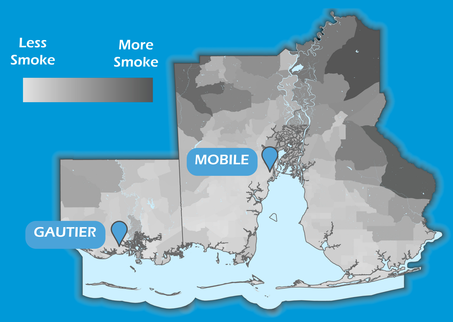
NOAA's National Centers for Coastal Ocean Science (NCCOS) social science team partnered with land managers in the coastal counties of Jackson, MS and Mobile and Baldwin, AL to better understand and visualize prescribed fire practices in the area.



WHERE IS PRESCRIBED FIRE?[1]



Smoke and prescribed fires are not necessarily associated. Unlike smoke from wildfire and other human-caused fire, prescribed fire smoke is managed based on weather conditions to quickly minimize and disperse plumes. This reduces potential impacts to respiratory health and air quality. The map below includes smoke from prescribed fire, wildfire and other human-caused fire.[2]



Despite regulations, smoke can be an impactful outcome of prescribed fire, with reduced visibility on and around roads. This is why warnings are given to community members prior to conducting a fire.

Prescribed fires and smoke are more likely to affect rural, less populated areas than densely populated ones.

BARRIERS TO PRESCRIBED FIRE PRACTICE

1 Government-mandated burn bans restrict prescribed fire implementation due to droughts or other environmental conditions, applying to individual practitioners rather than land managers.

2 Environmental laws and policy, such as air quality regulations, limit prescribed fire use.

3 Historical land management practices avoid prescribed fire due to past wildfire impacts to health and livelihoods. Further research is necessary to better understand public perceptions of fire and prescribed burns.

4 Fire suppression has led to debris build up, making prescribed fire unsafe in some areas and increasing the risk of wildfire.

5 Development poses challenges to prescribed fire because of increasing wildland urban interface (WUI).

NCCOS social science team in partnership with land managers at Grand Bay NERR and Weeks Bay NERR. Data sources include: [1]1992-2020 fire data from the USDA Forest Service, [2]2017-2022 smoke imagery from NOAA's Office of Satellite Operations, and boundary files from the US Census Bureau.