George Washington Carver

National Park Service
U.S. Department of the Interior

George Washington Carver
National Monument

Prescribed Fire

Ignition of Prescribed Burn Unit 7 in April 2007.

Fire at George Washington Carver

Historically, fires have played an important role in shaping the landscape of George Washington Carver National Monument. The National Park Service uses prescribed fire as one tool to restore and maintain natural communities and cultural resources.

The History of Fire

Fire has a long history in this region. Lightning-ignited fires on sun-cured prairies and glades were part of the natural environment. Human activity supplemented and intensified naturally occurring fire. Native Americans used fire as a tool for wildlife and vegetation management, insect control, and warfare.

Tallgrass prairies once covered more than 140 million acres of the United States, including portions of southwest Missouri. Frequent fire helped keep the sea of prairie grasses and flowers free from trees and shrubs. Eventually, much of the vast prairie habitat was plowed for agriculture and today only remnants remain.

When George Washington Carver was growing up on the Carver farm, the landscape was much more open which allowed for farming. The woodlands were less dense and occupied narrow corridors along the stream branches. Remnants of the native tallgrass prairie likely remained in small patches around the farm.

Benefits of Prescribed Fire

Fire is a natural process that profoundly influences the native vegetation and wildlife of the region. Native species, unlike many non-native species, have specially adapted root systems that extend up to two meters into the soil allowing quick recovery from fire. Many native trees can withstand fire damage because they have a thick, insulating bark. Native wildflowers often thrive following a fire due to the abundance of nutrients released back into the soil and the opening of their habitat for better seed dispersal, germination, and penetration of sunlight to the soil.

The National Park Service uses prescribed fire as a tool to rehabilitate natural communities such as prairies by reducing woody brush and increasing native species diversity. Prescribed fire also provides important benefits to native "fire-tolerant" plants by stimulating native plant production, controlling woody plant invasion, suppressing non-native species, and inhibiting disease and insect infestations.

Conducting a Prescribed Fire

The prescribed fire program at George Washington Carver National Monument is conducted under the guidance and direction of trained and experienced National Park Service fire personnel. Burns are carefully planned and performed under the control of a trained crew with specialized equipment. Typically, only about half of the park's burn units are burned in a given year. In order to measure the effects of prescribed fire over time, vegetation monitoring is conducted by fire ecology staff before and after each burn.

There are specific management goals and

Conducting a Prescribed Fire

objectives for every prescribed fire. Before burning, a designated set of conditions must exist including ideal air temperature, fuel moisture, wind speed and direction, and relative humidity. Weather conditions are monitored throughout the prescribed burn to make sure operations are conducted safely.

Natural and mechanical firebreaks, such as streams, mowed lines, trails, and roads are used to reduce the likelihood of fire spreading to areas outside the prescribed burn location. However, the inconvenience of some smoke is always possible, even though fire personnel plan ignition methods to avoid putting excess smoke in the area.

Prescribed fires differ from wildfires because prescribed fires are implemented under specific conditions. While prescribed fires can have a beneficial effect on the landscape, wildfires at George Washington Carver National Monument are immediately suppressed because they may be more unpredictable and can potentially threaten life and property.

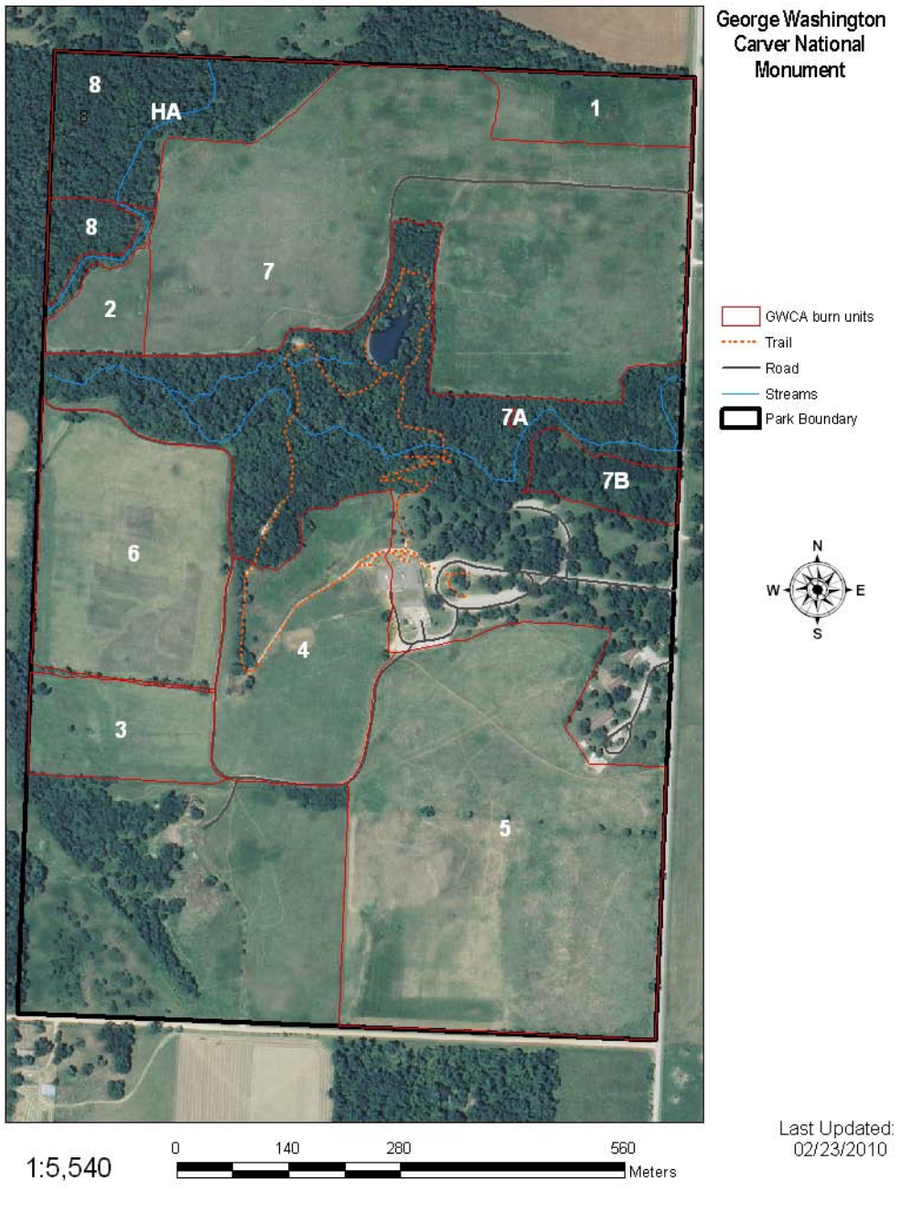
Protecting Park Neighbors

Conducting prescribed fires at George Washington Carver National Monument reduces fuel loads, and thus the risk of a wildfire spreading outside the park bounderies onto private land. Wildfire does not recognize political boundaries and does not know were the park stops and private land begins. Private lands such as homes or farms border the park. These areas, where natural areas and homes are interspersed, are called Wildland-Urban Interface zones.

Long fire-free intervals and natural disasters such as tornados or ice storms can lead to the hazardous accumulation of woody debris or thick grass litter in areas of the park. Park managers use prescribed fire to reduce these "hazardous fuels" and prevent unwanted wildfire growth. When burned under the right conditions, the hazardous fuels will be consumed and will not provide fodder for a wildfire.

Location of Prescribed Fire Units

Burn Unit	Acres
Unit 1	4
Unit 2	3
Unit 3	3
Unit 4	11
Unit 5	42
Unit 6	15
Unit 7	51
Unit 8	1.5



More Information

For more information on the prescribed fire program at George Washington Carver National Monument, call 417-325-4151 or visit www.nps.gov/gwca.