



Prescribed Fire



NPS/ J. Michael Johnson

Fire at Wilson's Creek

Fires played an important role in shaping the historic landscape of Wilson's Creek National Battlefield. The National Park Service uses prescribed fire as one tool in restoring the natural communities and cultural resources of the battlefield landscape to the conditions that were encountered by the 17,500+ Union and Confederate soldiers who fought here on August 10, 1861. The Heartland Network Long Term Ecological Monitoring Program, stationed at Wilson's Creek National Battlefield, measures the effects of prescribed fires to see if park objectives were met.

The History of Fire

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

also started as a result of the battle of Wilson's Creek. Today, ecologists and natural resource managers use fire to benefit plants, animals, and humans by supporting biodiversity and reducing wildland fire risks.

Benefits of Prescribed Fire

Fire, a natural process, profoundly influences the native vegetation of the region. Fire aids in reproduction of many fire-dependent plant species. Native species, unlike many non-native species, have specially adapted root systems that grow up to two meters deep allowing quick recovery from fire. High temperatures generated by a fire penetrate only a few centimeters of soil. Some native plants, such as oak trees, can survive fire damage because they have thick, insulating bark.

as a tool to rehabilitate natural communities, such as prairies and savannas, by reducing woody brush, and increasing native species diversity. Occasional fire provides important benefits for the "fire-tolerant" plants of Wilson's Creek including:

- stimulating native plant production,
- controlling woody plant invasion,
- releasing nutrients back into the soil to enhance plant growth,
- suppressing non-native species, and
- inhibiting disease and insect infestations.

The National Park Service uses prescribed fire

Conducting a Prescribed Fire

Wilson's Creek National Battlefield conducts its prescribed fire program, initiated in 1988, under the guidance and direction of trained and experienced National Park Service fire personnel. They carefully plan and conduct prescribed fires under specific guidelines using

highly-trained firefighters and specialized equipment.

Prescribed fires have management goals and specific objectives for area burned. Before ignition can begin, a designated set of

conditions must exist including: ideal air temperature, precipitation, wind speed and direction, and relative humidity. Crews monitor weather conditions throughout the burn to make sure the fire is completed safely.

Natural and mechanical firebreaks, such as streams, mowed lines, trails, or roads reduce the amount of water and staffing required for fire by keeping the fire within the designated boundary. Smoke may cause minor inconvenience even though fire personnel plan

ignition methods to avoid excess smoke in the area.

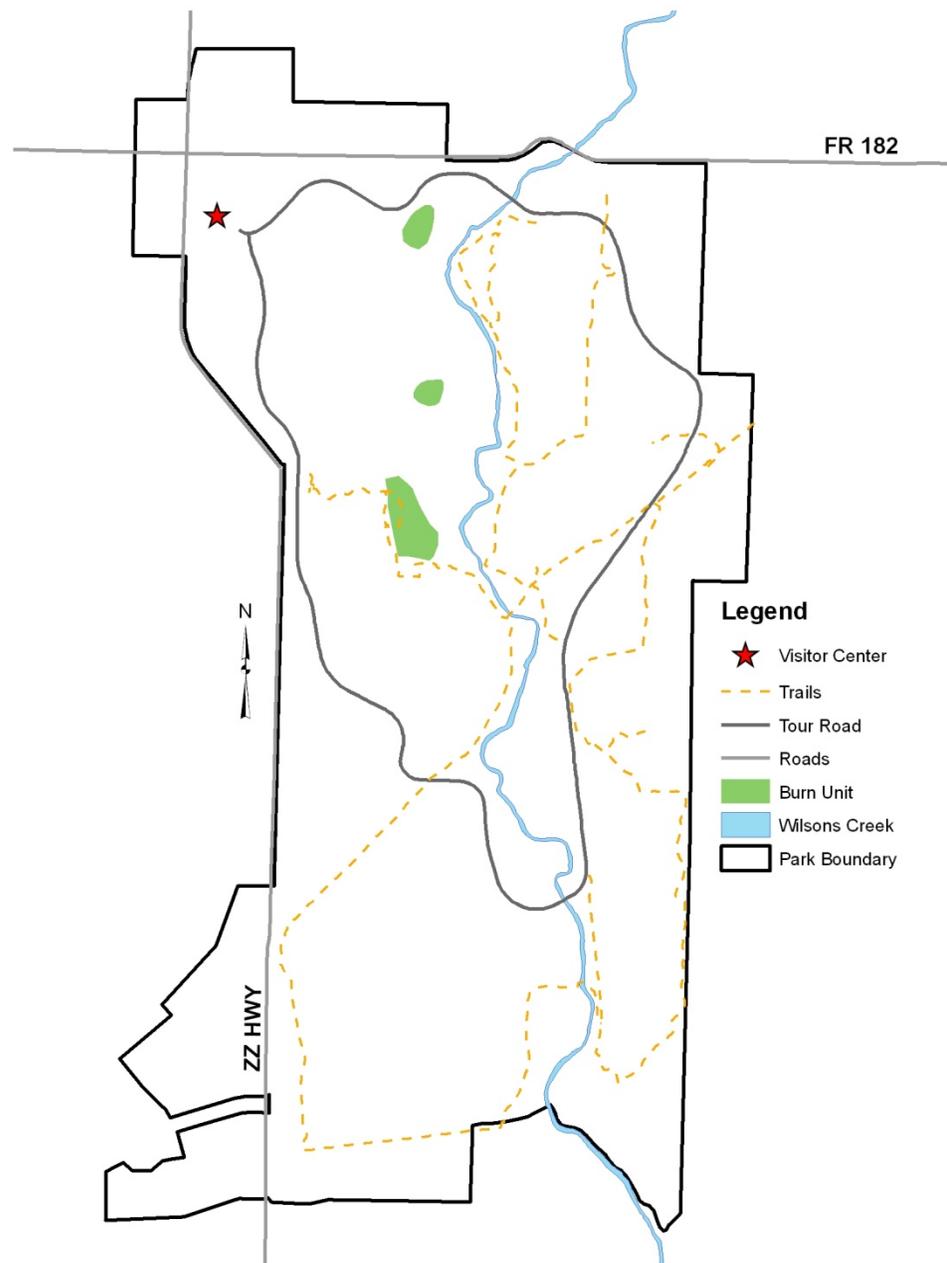
Prescribed fires differ from wildfires because managers implement prescribed fires under specific conditions that are less intense than wildfires. While prescribed fires benefit the landscape, wildfires at the battlefield are immediately suppressed because of their unpredictable and potentially damaging effect on life, public health and safety, and property.

Protecting Park Neighbors

Prescribed fires at Wilson’s Creek National Battlefield reduce the risk of a wildland fire spreading outside of the park boundaries and onto private land. Wildland fire does not recognize political boundaries and does not know where the park stops and private land begins. The park is surrounded by homes and farms on all four sides. Fire agencies call areas where natural communities and residences occur together “Wildland-Urban Interface zones”.

Wilson’s Creek National Battlefield experienced several natural disasters (tornados, severe ice damage, and flooding) in the past decade resulting in an hazardous accumulation of dead trees and branches that now litter the wooded areas of the park. Park managers use prescribed fire as a tool to reduce these “hazardous fuels” preventing unwanted wildland fire. Hazardous fuels can be safely consumed under the right conditions reducing the potential for unpredicted wildland fires.

Location of Prescribed Fire Units



More information

More information on Wilson’s Creek National Battlefield’s prescribed fire program, the fire management plan and cultural landscape reports can be downloaded from: www.nps.gov/wicr/parkmgmt/planning.htm.