



St. Charles County Government

Department of Parks and Recreation
Bettie Yahn-Kramer, Director

Prescribed Fire Fact Sheet

A prescribed fire is a management tool used under specific environmental conditions to achieve a desired objective. In the case of the St. Charles County Parks and Recreation Department, this objective is to manage and restore some of the natural habitats found throughout the county's park land. These habitats include prairies, glades, savannas, woodlands, forests and wetlands. Prescribed fire is just one of the many tools used to manage our natural habitats, but considering how highly visible this management tool can be it typically gets the most attention.

Prior to European settlement, low to moderate intensity surface fires swept across the landscape on a routine basis consuming little more than leaf litter and short brush. With the loss of fire, prairies, glades and savannas were rapidly overgrown in trees and shrubs. The most promising aspect of this phenomenon is that we are able to restore these communities by reintroducing fire as well as selectively removing trees. Many of the native seed and root stocks of wildflowers, grasses and sedges are still present in the soil, but suppressed by the crowded mid and overstory canopies.

In general, woodlands and savannas throughout our county have been drastically modified since early and pre-settlement conditions. A combination of woodland grazing and the lack of fire have changed these habitats to dense, closed forests thick with woody stems. These land use practices are favoring the extremely shade tolerant species such as sugar maple, dogwood, ash and elm as well as suppressing the herbaceous layer of grasses, sedges and forbs which previously occurred. Shade tolerant species are beginning to occupy the overstory canopy with little to no oak and hickory regeneration occurring.

The use of prescribed fire, in addition to other management activities, will allow us to promote a diversity of natural vegetation that supports a wide variety of wildlife including deer and numerous other mammals, as well as a plethora of songbirds, waterfowl, reptiles and amphibians. These management activities will allow us to restore some of our natural communities that were once prevalent throughout our county park system.



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Questions and Answers

Who will be responsible for conducting the prescribed burns in the parks?

Prescribed burns are planned and conducted by our Forestry staff with the assistance of our Operations staff as well as volunteers from the Missouri Master Naturalists. Park staff and volunteers are experienced and well-trained in conducting prescribed burns as well as suppressing wildfires. In addition, prior to conducting any prescribed burn, the local Fire Protection District and Sheriff's Department are notified of the timing and location of all burning activity.



What are the optimal conditions for conducting a prescribed burn?

Our Parks Department will be conducting burns primarily from October through April. During this period, many of our plant species are dormant. Favorable weather conditions are typically clear skies, relative humidity between 30% and 60%, and winds of 5 to 15 mph. Smoke management is of great concern during our prescribed burns; downwind features such as highways and residences are always taken into consideration.

What can I expect as a neighbor to the park during and after a prescribed burn?

During a prescribed burn, neighbors will most likely see and smell smoke that will remind them of a camp fire or burning leaves. This smell may be present for several days following a burn. Several weeks or months following the burn – prior to new growth – the area may look scorched and “somewhat barren.” Grasses and wildflowers in the prairies will have been consumed in the fire, leaving the ground black in color in those places. Trees and downed limbs in the forests and woodlands may have scorched bark, and most of the leaves will have been consumed to expose bare soil and rock in some areas. Once spring arrives, one will notice a flush of new vegetative growth across the forest floor.

What effect will fire have on wildlife during the burn?

Wildlife in Missouri have adapted to fire long before humans arrived. Larger mammals have the ability to simply run away from the area during the burn, while smaller mammals can find places to hide. Many of our burns are conducted in the fall and winter while many of our reptiles and amphibians are hibernating. Following a fire, these areas typically attract certain species of wildlife searching for food exposed during the fire and some that are browsing rejuvenated vegetation the following spring.