

"In My Backyard"
Natural Areas Stewardship Program



Public Works Department

Prescribed Burning

Understanding this Management Tool

History of prairie & woodland fires

Fire is an important ecological force that has influenced the natural history of North America throughout time. Before the European settlers came to the Midwest region, fire was a natural occurrence. Lightning strikes would occur and burn anywhere from a couple of acres to hundreds of acres. Fire was also started by Native Americans to drive game, encourage growth of nuts, berries and seeds for food, improve pasture for domestic and wild animals, protect villages and camps, and to make travel easier.

Why fire was suppressed

Despite the benefits of fire as a management tool, over time the acceptance and use of fire was decreased and its suppression became the norm. Several factors were involved with this change in practice. One was the shift from subsistence based agriculture to commercial agriculture. Another was increasing human population density and urban development. Because of this, fire was viewed as a destructive force that ruined property and natural resources. Over time, however, natural resource managers realized that without fire, prairies and woodlands became choked with dense underbrush, overstocked with invasive weedy plant species, and decreased in biodiversity. This, in turn, led to severe habitat loss for insects, birds and animals and rendered many of these species endangered or extinct.

What is prescribed fire?

Prescribed fire or controlled burning is a tool used by natural resource managers to accomplish specific management objectives. These objectives include ecosystem restoration, wildlife habitat improvement, wildfire hazard reduction, and reduction of plant competition. Prescribed fire is used throughout the United States and is a common management tool in the tall grass prairies and woodlands of the Midwest.

Benefits of fire

Native plant community restoration

Most of the prairies, wetland and woodlands in Illinois developed and were historically maintained by periodic fires. These unique natural areas contain plant species that have specialized adaptations to fire that allow them to flourish. When this happens, they choke out invasive (which are not fire tolerant) and restore the biodiversity back to the habitat.

Wildlife habitat

Properly managed prescribed burns do not pose a significant threat to wildlife. Fire actually increases the quality and quantity of suitable habitat because it allows native tree and plant species to increase their production of food such as fruit, nuts, grasses, and forbs. Healthy habitat equals healthy and diverse wildlife.

Tree regeneration

Fire eliminates undesirable competing tree species and favors native tree species. This helps to kill off invasives that crowd and shade the ground, prohibiting native trees such as oaks and hickories (which need sun for germination) from re-seeding.

Hazard Reduction

Fire is also used to reduce fuel accumulation, such as dead plants, leaves, etc. that could lead to severe and uncontrolled natural fires. Periodic removal and burning off of dead material and dense small trees reduces the threat of a fire that will pose a risk to personal property and human safety.

"When one tugs at a single thing in nature, he finds it attached to the rest of the world." John Muir