

Hazard Mitigation Practices at Indiana Dunes Reduces Wildfire Threat

The Challenge

The Indiana Dunes State Park near Chesterton, IN, is a 2,182 acre preserve designated in 1926 for its intricate ecosystems. This park features 3 miles of shore line along Lake Michigan and more than 1,800 acres of forested woods which contain some of the most diversified flora and fauna in the Midwest. The park is part of a larger dunes area along the south shore of Lake Michigan which includes both public and private lands, and features bogs, wetlands, prairies, scenic beaches, rivers, oak savannas, fens, and forested dunes. These intricate systems, in which fire has historically been present and recently been reintroduced, are considered the birthplace of ecology because of the pioneering work of Henry Cowles in 1899. The area is home to more than 350 species of birds, numerous species of wildlife, and many rare and endangered plants. It's also on the eastern edge of the Chicago metropolitan area – development has encroached on many of the natural areas. Management of these unique ecosystems involves managing the human impacts on the ecosystems as well as managing the ecosystem impacts on the humans. The exclusion of fire in some locations has resulted in degradation of the ecosystem and a build up of fuel which can lead to wildfires.

The Solution

Using National Fire Plan (NFP) funds provided by the Northeastern Area (NA), the Indiana Department of Natural Resources, Division of Forestry is using prescribed fire in the Indiana Dunes State Park to reduce fuel buildup and to promote the growth of the oak forest. A 42-acre prescribed fire was completed in early 2007. A coordinated state and federal effort is also underway to restore fire to appropriate areas in the dunes ecosystem of the National Park Service's (NPS) Indiana Dunes National Lakeshore, an area more than 15 miles along the shores of Lake Michigan. A total of 88 acres have been treated either mechanically or by prescribed fire or both with NFP funding. These areas were identified as the most critical areas requiring treatment – near improvements and boundaries.

National Fire Plan funds supporting hazard mitigation activities reduced the impact of a wildfire in the Indiana Dunes.



Public and private lands intermingle throughout the Indiana Dunes area which makes fuel buildup an added threat to communities. (Photo credit – Indiana Department of Natural Resources, Division of Forestry)

Resulting Benefits

Using prescribed fire in the dunes area will reduce fuel buildup and the threat to the ecosystem or structures should an unwanted human-caused fire occur, and promotes the regeneration of the oak forest areas. A wildfire caused by misuse of equipment started in the state park on April 22, 2007. This area had been part of a recent prescribed burn which had removed roughly half of the fuels in the area. The fire spread quickly, but was extinguished by local volunteer fire departments, state and NPS personnel. It was reported that the wildfire would have been more extensive if not for the prescribed burn. One park structure was threatened but not damaged.

Sharing Success

NFP funds can be used effectively to reduce the hazards to ecosystems, people and structures caused by the buildup of fuels in areas where fire has been excluded. Carefully planned and executed prescribed fires can reduce the impact of unwanted wildfires. Coordinated efforts between local, state and federal partners are effective means to build public support for prescribed fire and other forest management practices. In the case of this fire, a local fire chief had been an opponent of using prescribed fire throughout the dunes ecosystem and is now a supporter of these hazard mitigation efforts.



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