

Wildfire Mitigation in State Park Protecting the Ecosystem

The State of Minnesota A tornado and several windstorms caused severe damage in Itasca State Park, located in northwestern Minnesota, and has a half a million visitors each year. The storm damaged and blew down numerous pine trees throughout the park. As the downed, wet trees dried, the potential for a catastrophic wildfire greatly increased in the park. The bark beetle exists in all pine forests, but usually does not present a threat to a healthy forest. However, the storm created the perfect breeding environment for the bark beetle. Any significant increase in the beetle population could have caused the damaged or healthy trees to become infested, die, and increase the threat of wildfire.

The subgrantee, the Minnesota Department of Natural Resources (DNR), has been conducting a bark beetle control project in the park, thereby reducing accumulation of dead tree fuel. In May of 1996, the DNR installed four adult bark beetle traps per acre in the affected areas. The traps have been and will continue to be monitored and maintained weekly. The project may take up to 5 years to sufficiently reduce the bark beetle population to a safe level for the pine forest in the park. Since the project is ongoing, the State legislature has provided additional funding to continue the project beyond the scope of the FEMA-approved project.

The loss of the old growth pine ecosystem would cause significant changes to the overall ecosystem including lichens, trees and shrubs, the herb layer, soil moisture, and use by mammals, insects, birds, amphibians, and reptiles. If a loss of pines occurred, there would be no way to regenerate or replace the existing old growth ecosystem.

The catastrophic loss of the pine ecosystem due to a bark beetle outbreak would completely change the appearance of the park and would detract from the visitor experience. In addition to the bark beetle control, the park has created a new interpretive trail to point out the damage caused by the storm and educate its visitors on the storm's effect. The interpretive trail is appropriately named the "Blowdown Trail."



State-wide, Minnesota



Quick Facts

Sector: Public Cost: \$162,390.00 (Actual) Primary Activity/Project: Vegetation Management Primary Funding: Hazard Mitigation Grant Program (HMGP)