

Environmental Assessment
For Fire Management
Including Use of Prescribed Fire



Cuyahoga Valley
National Park • Ohio

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May 2014

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Cuyahoga Valley National Park Summit and Cuyahoga Counties, Ohio

The National Park Service (NPS) is considering actions at Cuyahoga Valley National Park (park) to manage wildland fire and use prescribed fire. The purposes of the project would be to protect human health and safety; protect historic and non-historic structures; and enhance habitat for native plants and wildlife.

The following environmental assessment (EA) describes the effects of the project on the human environment and provides an opportunity for the public to comment on the project in accordance with the National Environmental Policy Act of 1969, Council on Environmental Quality regulations (Title 40 **Code of Federal Regulations [CFR]** Part 1500 et sequentia), and other applicable laws, regulations, and policies. This EA also assesses the effects of the project on historic properties in accordance with Section 106 of the National Historic Preservation Act.

The park's preferred method for receiving comments on this environmental assessment is online through the NPS's "Planning, Environment and Public Comment" website at http://parkplanning.nps.gov/CVNP_FireManagementEA_2014. However, for those without internet access, written comments, including name and address, may be submitted via regular mail by June 30, 2014, and should be addressed to

Craig Kenkel, Superintendent
Cuyahoga Valley National Park
15610 Vaughn Rd
Brecksville, OH 44141.

Upon request, the NPS typically makes comments submitted on EAs, as well as the names and addresses of commenters, available to the public. However, individual commenters may request the NPS to withhold their names and addresses from the public record; the NPS will honor such requests to the extent allowable by law. **If you wish to have your name and/or address withheld, you must state this prominently at the beginning of your comment letter.** Comments submitted by organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

Following public and agency review, the Director of the Midwest Region will make a determination concerning whether or not the project would result in significant impacts on the human environment. If the project would not significantly impact the human environment, the Regional Director will issue a "Finding of No Significant Impact". If the project would significantly impact the human environment, the Regional Director will issue a "Notice of Intent" to prepare an environmental impact statement.

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PURPOSE OF AND NEED FOR THE ACTION

CVNP supports land that is capable of burning and therefore must develop a fire management plan (FMP) in accordance with National Park Service (NPS) policy and other federal guidance. The FMP must address preparedness for fires; equipping, assessing and training park staff as firefighters; and procedures for pre- and post- fire suppression activities. A detailed plan of action to implement fire-management policy and objectives at CVNP, including suppression of wildfire and use of prescribed fire, must consider the effects of those actions on the human environment.

Accordingly, the purpose of this environmental assessment is to evaluate appropriate tools to manage hazardous fuels and meet management objectives, while considering and evaluating the effects of various alternatives on natural and cultural resources using available data and local expertise.

Although CVNP has not identified an immediate need to reduce hazardous fuels, hazard fuels will be considered in this assessment as part of CVNP's objective to use prescribed fire as a management tool to maintain open fields to protect cultural landscapes, enhance wildlife habitat, and increase recreational opportunities.

NEED FOR FIRE MANAGEMENT PLAN

National Park Service's Director's Order #18 (DO-18) requires that

"All NPS units with vegetation that can sustain fire must have a Fire Management Plan."

DO-18 further states that,

"The overall resource management objectives for an NPS unit must guide Fire Management Plans. The resource management objectives will determine whether and how fire will be managed."

To ensure that protocols described in an FMP do not have adverse effects on natural and cultural resources, DO-18 requires FMPs to comply with the National Environmental Policy Act (NEPA). This environmental assessment (EA) functions as the NEPA documentation that analyzes a range of reasonable management alternatives, as well as the direct, indirect, and cumulative impacts of those alternatives.

Impacts of several management techniques will be evaluated in this document based on available data and expertise of resource specialists familiar with CVNP. Some evaluations are based on information in CVNP's General Management Plan (GMP) and/or other planning documents. The GMP provides the framework for other planning documents at CVNP, including the Resource Management Plan (RMP) and FMP.

FMPs must incorporate minimum impact suppression tactics (MIST), which result in a minimum amount of resource damage while maintaining the safety of firefighters, personnel, and the

public as the highest priority (complete MIST guidelines are included in NPS Reference Manual 18, Chapter 9, Exhibit 5). Portions of CVNP are listed on the National Register of Historic places or support non-listed cultural resources due to their historic and cultural significance. Section 106 of the National Historic Preservation Act (NHPA) requires that any proposal for restoration, demolition, reconstruction, landscaping, or land acquisition that may affect historic resources at CVNP must be reviewed and commented upon by the Ohio State Historic Preservation Officer. In accordance with the NHPA, this FMP considers the impact of fire management activities and a no action alternative on historic resources, including cultural landscapes.

FIRE MANAGEMENT OBJECTIVES

Park managers have identified the following objectives for fire management at CVNP:

- suppress all wildland fires within the CVNP boundary and provide a well-organized system for identifying, mobilizing, and fighting wildland fires;
- ensure that efficient fire-fighting services are readily available for the safety and protection of visitors, residents, employees, and natural and cultural resources;
- clearly establish the responsibilities of NPS firefighters and local fire agencies in the suppression of wildland fires in accordance with 16 USC 460ff;
- provide a cost effective and efficient means of managing landscape for cultural and natural resource objectives; and
- use prescribed fire as a tool to reintroduce natural processes into natural systems at the park.

BACKGROUND

PARK PURPOSE

Congress established CVNP as a National Recreation Area in 1974 for the purpose of "preserving and protecting for public use and enjoyment, the historic, scenic, natural and recreational values" of the Cuyahoga Valley, thereby maintaining "needed recreational open space necessary to the urban environment" (Public Law 93-555). Congress directed park managers to use CVNP resources "in a manner, which will preserve its scenic, natural, and historic setting while providing for the recreational and educational needs of the visiting public." Public Law redesignated the National Recreation Area a National Park in 2000.

In addition to purposes identified in the park's establishing legislation, the Organic Act of 1916 states that the overarching purpose of the NPS at all park units is "...to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

PROJECT SETTING

Located in northeast Ohio between the metropolitan areas of Cleveland and Akron, Cuyahoga Valley National Park (CVNP) protects 33,000 acres along the banks of the Cuyahoga River

(Figure 1). The winding Cuyahoga—the "crooked river," as named by American Indians—gives way to rolling floodplain, steep valley walls and ravines, and lush upland forests. The CVNP is a refuge for flora and fauna and provides both recreation and solitude for visitors and residents of Northeast Ohio.

Congress established CVNP as a National Recreation Area in 1974 and redesignated the site as a National Park in 2000. CVNP was created for the purpose of "preserving and protecting for public use and enjoyment, the historic, scenic, natural and recreational values" of the Cuyahoga Valley, thereby maintaining "needed recreational open space necessary to the urban environment" (Public Law 93-555). Congress directed park managers to use CVNP resources "in a manner, which will preserve its scenic, natural, and historic setting while providing for the recreational and educational needs of the visiting public."

SCOPING ISSUES

"Issues" describe the relationships between actions and environmental resources and define the development of impact topics considered in the environmental effects section of this document. "Impacts" are predictable results of actions on identified resources (i.e., impact topics), which are quantified as much as possible. Internal scoping within the NPS for alternatives and potential issues related to CVNP's FMP occurred throughout 2012 and public scoping was conducted in January and February 2013; the park held a public scoping meeting at the Boston Store Visitor Center on January 31, 2013. Principle issues identified in scoping included the following:

- lack of management plans for wildlife and vegetation;
- unspecified "desired future conditions" for natural resources;
- varied responses of invasive plants to alternatives;
- effects of fire suppression on historic resources;
- consideration of actions at the wildland-urban interface; and
- limited understanding of the historic fire regime within CVNP's mixed mesophytic forest, where forests dominated by oaks on the Allegheny Plateau meet eastern deciduous forest of the Central Lowlands, and where woodlands begin transitioning to tallgrass prairie.

IMPACT TOPICS

Impact Topics Analyzed in this Document. Analyses of the impacts of the project alternatives on the following environmental features are presented in this EA: (1) air quality; (2) vegetation and habitat, including invasive plants; (3) wildlife; (4) endangered, threatened and rare species; (5) archeological resources; and (6) visitor experience.

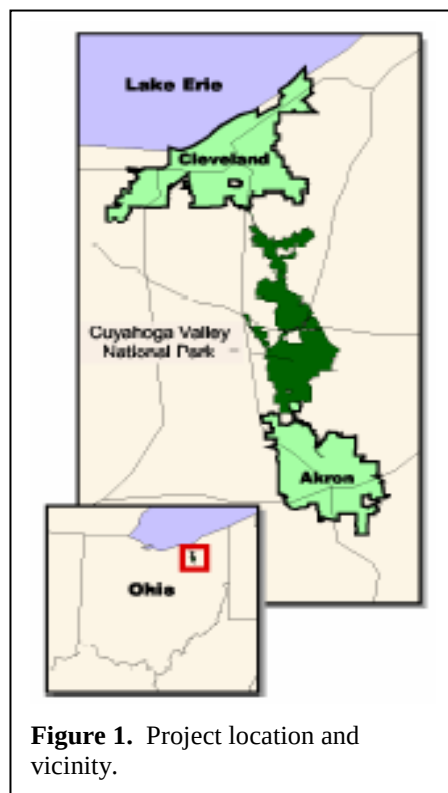


Figure 1. Project location and vicinity.

Impact Topics Dismissed from Further Analysis in this Document. The topics listed below either would not be affected or would be affected negligibly by the project alternatives and, therefore, have been dismissed from further consideration and analyses in this EA (negligible effects are localized and immeasurable or at the lowest levels of detection):

Geology and Soils, including Prime Farmland. CVNP is located at the confluence of the Allegheny Plateau and the Central Lowlands and has been affected by multiple glaciations. The Cuyahoga River between Akron and Cleveland flows across Devonian and Mississippian shale and Pennsylvanian and Mississippian sandstone. When the area's last glacier receded about 13,000 years ago, glacial till composed of rock, sand, gravel and clay remained in a wide valley with erodible slopes ranging up to 400-feet high. The Cuyahoga River's floodplain at CVNP is more than a mile wide in places and provides good conditions for agriculture.

Dominant soils on terraces and ravines in the southern part of the park include Fitchville, Glenford, Ellsworth, Mahoning, and Rough-broken associations, while Oshtemo, Chili, Mentor, and Geeburg series are more common in upland areas to the north. Most of these soils have low permeability and high erosion potential. Dominant soils on floodplains at CVNP include Holly, Lobdell, Chagrin and Tioga soils, which are moderately permeable and less prone to erosion due to flat terrain and gentle slopes. All of these soils all have good potential for supporting woodlands and wildlife habitat with the floodplain of the Cuyahoga River also providing good conditions for agriculture.

All alternatives considered in this EA include potential for wildland fire suppression but firefighters would utilize minimum impact suppression tactics to protect soils and manage potential erosion. Accordingly, actions considered in this EA would not affect geology, soils or prime farmland at the park and this topic is dismissed from further consideration in this EA.

Water Resources including Floodplains and Wetlands. Twenty-two miles of the Cuyahoga River and more than 190 miles of perennial (permanent) and ephemeral (temporary) streams flow through CVNP. More than 100 lakes and ponds dot the landscape within the park, with approximately 70 existing on federal land. Water quality in tributaries generally meets state water quality standards for warm water habitat. However, the Cuyahoga River – although much improved from its days as the “river that burned” – remains listed as an impaired waterbody on the Ohio's 303 (d) list pursuant to the Clean Water Act due to organic enrichment, nutrient enrichment, low dissolved oxygen, toxicity, sedimentation and habitat degradation.

Impacts to ponds, lakes, and streams could result only from soil erosion associated with fire-management activities, which could increase turbidity and sedimentation. However, soil erosion is evaluated for each alternative within the Environmental Consequences section of this EA.

None of the alternatives considered in this EA propose actions within floodplains or riparian areas, and none of them would affect these resources, since no alternative would change elevations or waterflow.

CVNP also supports more than 1,400 wetlands covering approximately 1,700 acres of parkland, including marshes, wet meadows, scrub/shrub wetlands, and forested wetlands. Most of the

wetlands are smaller than one acre with only 35 being larger than ten acres. None of the alternatives considered in this EA propose actions within wetlands and none would impact wetlands through filling, elevation changes, vegetation changes, and/or hydrologic or soil alterations.

All alternatives include potential for wildland fire suppression but firefighters would utilize minimum impact suppression tactics to protect water resources and avoid damaging wetlands, floodplains, and riparian areas during suppression activities.

Nationwide Rivers Inventory, American Heritage River, and other designations. CVNP's proximity to large urban areas, long history of use, and high visitation has resulted in its designation to several lists of protected or celebrated resources, which recognize the importance of the river as a scenic, recreational, historical, and ecological resource. More than four million people live within a short drive of the park, making these designations particularly significant to the area. However, none of the alternatives considered in this EA propose actions that would affect the river's value as a significant national resource or violate any protections provided the river through these designations. This EA and associated NEPA process satisfy requirements for public notification and participation associated with protections provided the Cuyahoga River by special designations.

Cultural Landscapes. Cultural landscapes are one of several categories of cultural resources managed by the NPS (NPS 2006) and represent geographic settings that reveal fundamental ties between people and land, including natural and constructed elements, such as plants, fences, paths, waterways and buildings. CVNP's "Thematic Overview and Methodology Guide for Cultural Landscapes" (Winstel 2000) categorizes and identifies cultural landscapes using six themes: (1) prehistory, (2) settlement, (3) transportation, (4) agriculture, (5) industry and (6) recreation.

Although landscapes representing these six themes are scattered throughout the park, proposed actions would not affect identified cultural landscapes. Tracts 123-54 and tract 127-72, identified within the "settlement" theme, are located in the Terra Vista area. However the cultural landscape on tract 123-54 is associated with the house west and downslope of the area proposed for use of prescribed fire and prescribed fire would be excluded from the cemetery associated with tract 127-72. Similarly, tracts 127-5, 127-6 and 127-8 associated with the agricultural theme are located south and downslope of the area proposed for prescribed fire. Although the Coliseum site was included in the park's Rural Landscape Management Program (USDI, 2003), it was proposed for habitat management and not for agricultural use. Other areas included in the rural-landscape program, such as Gleeson Farm, would not be affected by the proposed action. Accordingly, this topic was eliminated from further consideration.

Historic Structures. CVNP has more than 420 features included on the park's List of Classified Structures, including dozens of homes, home sites and associated features.

However, despite the extensive presence of historic features throughout the park, only two archeological sites are located within prescribed-burn units and other features would be protected from wildfire using minimum impact suppression tactics. Accordingly, except for archeology, this topic was eliminated from further consideration.

Ethnographic Resources. Humans have inhabited the Cuyahoga Valley for nearly 12,000 years with stories of prehistoric and historic people told in archaeological remains found throughout the valley. The Cuyahoga River was utilized for centuries by American Indians as the primary means of access between Lake Erie and the Ohio River as demonstrated by the nearby “Signal Tree”, which marks the primary portage path between the Cuyahoga and Tuscarawas Rivers.

However, despite this use, no tribal group has made claims to the land or resources within CVNP boundaries and one of the alternatives considered in this EA propose actions that would affect ethnographic resources. Nevertheless, tribal consultation was conducted as part of the scoping process associated with preparation of this EA.

Socioeconomics and Environmental Justice. Socioeconomic issues consider economic impacts on private holdings that might be affected by alternative considered in this EA. However, none of these alternatives would affect commercial or recreational activities on private property and, therefore, would not affect socioeconomics.

Per Executive Order 12898, socioeconomic considerations include environmental justice, which also considers impacts on children. However, none of the alternatives considered in this EA propose actions that would affect minorities, low-income populations, or children. Accordingly, these topics were eliminated from further consideration.

Scenic Views and Viewscapes. Viewscapes and scenic aspects of CVNP are important to its purpose and mission, and scenic values will be considered in sections related to cultural landscapes and visitor experience. Accordingly, this topic was eliminated from further consideration.

Soundscapes and Nightscapes. CVNP has not formally recognized soundscapes and nightscapes and none of the alternatives considered in this EA propose actions that would affect soundscapes or nightscapes. Accordingly, these impact topics were eliminated from further consideration.

ALTERNATIVES INCLUDING THE PREFERRED ACTION

This chapter describes the range of alternatives, including the No Action alternative, considered for fire management at CVNP. Alternatives were selected based on reasonableness and feasibility in meeting CVNP objectives to manage hazardous conditions and improve habitat. The responsibility of CVNP to preserve and protect natural and cultural resources requires immediate action to suppress all wildland fire and, therefore, an immediate response to suppress wildland fire is common to all alternatives.

Eleven fire departments provide emergency fire suppression at the park. CVNP does not have its own emergency fire suppression crew, although many staff members are qualified to fight wildland fire. Although immediate suppression of wildland fire is common to all alternatives, differences in fire suppression among alternatives are evaluated within the Environmental Consequences section of this EA.

NO ACTION ALTERNATIVE – CONTINUED IMPLEMENTATION OF THE 2004 FMP

Historically, all wildland fires at CVNP have been immediately suppressed due to the presence of numerous historic and non-historic buildings at the park, as well as the nearby proximity of dense residential and commercial areas. Under the No-Action Alternative, the park would continue to operate under the 2004 Fire Management Plan, which requires full suppression of wildland fire and limited use of prescribed fire at one site (the Borrow Pit Site – Figure 2). Wildland fires would continue to be suppressed throughout CVNP using minimum impact suppression tactics (MIST) to minimize impacts to cultural and natural resources. Prescribed fire would continue to be used to manage hazard fuels and improve grassland habitat at the Borrow Pit.

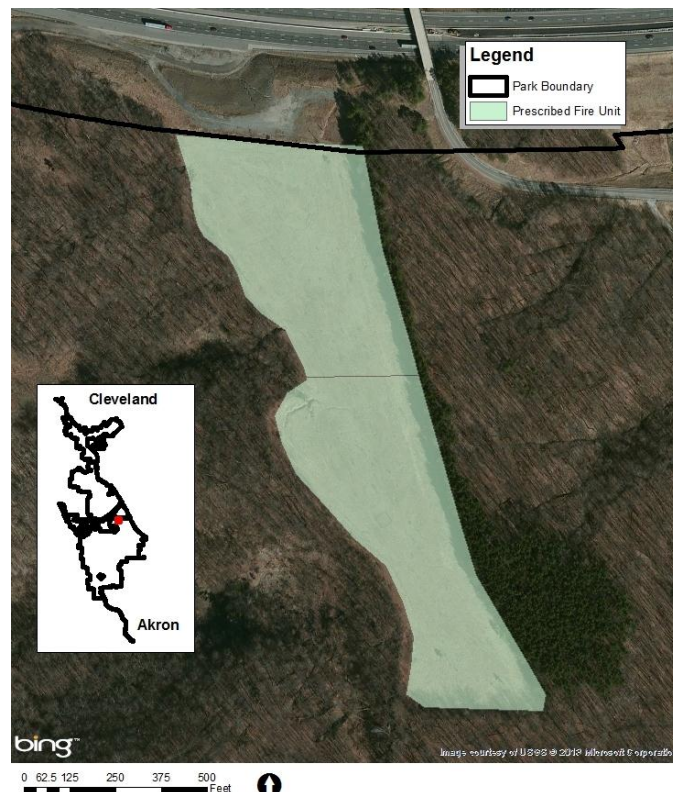


Figure 2. Borrow Pit Prescribed Fire Unit.

Under the No-Action Alternative, mowing would continue as the primary means to manage open fields. Under the park's mowing plan, lawns associated with developed areas, as well as edges of parking lots and major trails (e.g., the Towpath Trail) would continue to be mowed regularly from spring through fall, creating inadvertent fire breaks and reducing fuels. Other areas would continue to be mowed less frequently to improve habitat or maintain cultural landscapes. For example, the former site of the Richfield Coliseum would continue to be mown on a rotating, three-year cycle with one-third of the site mowed each year to maintain open-field habitat and provide habitat for ground-nesting birds. Other sites, such as the Virginia Kendall hills, would

continue to be mowed once or twice a year to maintain historic characteristics and field habitat for pollinators.

Hazardous fuels at CVNP also would continue to be managed indirectly through removal of hazard trees that pose dangers to CVNP staff, structures or visitors. Park staff would remove hazard trees using chainsaws and hand tools and then would chip and/or scatter debris to reduce build-up of wildland fuels.

Crews responding to wildland fire would use minimum impact suppression tactics (MIST) to minimize impacts to cultural and natural resources. MIST guidelines would ensure selection of procedures, tools and equipment that least damage the environment, including constructing firelines with minimum widths and depths, limbing branches selectively to prevent spread of fire, and minimizing cutting of trees and snags. Hazard fuels would continue to be managed indirectly through mowing and removal of hazard trees, as described above under No Action.

Although included in the 2004 FMP, use of prescribed fire at the Borrow Pit was not implemented until March 2012, when the southern half of the 13-acre site was burned in accordance with a site-specific prescribed-fire plan. The boundary of the burn unit was defined by a low-impact fire line created using a mower and backpack blower. Fire staff from Indiana Dunes National Lakeshore led the burn with full participation of the CVNP fire crew with the resulting prescribed burn meeting management objectives (e.g., between 75% and 98% of the site was burned and hazardous fuels were reduced). Under this alternative, NPS staff would continue to use prescribed fire at the Borrow Pit in the spring or fall season on a two- to three-year cycle.

FULL SUPPRESSION WITH PRESCRIBED FIRE AT THREE SITES (PREFERRED ALTERNATIVE)

Under this alternative, CVNP would continue full suppression of wildland fires and would continue to use prescribed fire at the Borrow Pit, as described above, but would expand use of prescribed fire to include the former site of the Richfield Coliseum and the Terra Vista Natural Study Area (Figures 3 and 4).

Crews responding to wildland fire would continue to use minimum impact suppression tactics (MIST) to select procedures, tools and equipment that least damages the environment, including constructing firelines with minimum widths and depths, limbing branches selectively to prevent spread of fire, and minimizing cutting of trees and snags. Hazard fuels would continue to be managed indirectly through mowing and removal of hazard trees.

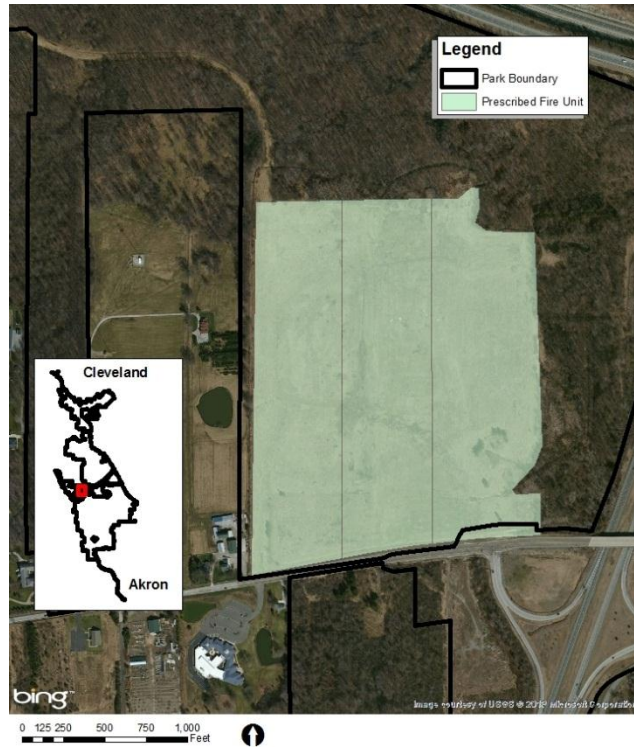


Figure 3. Coliseum Prescribed Fire Unit.

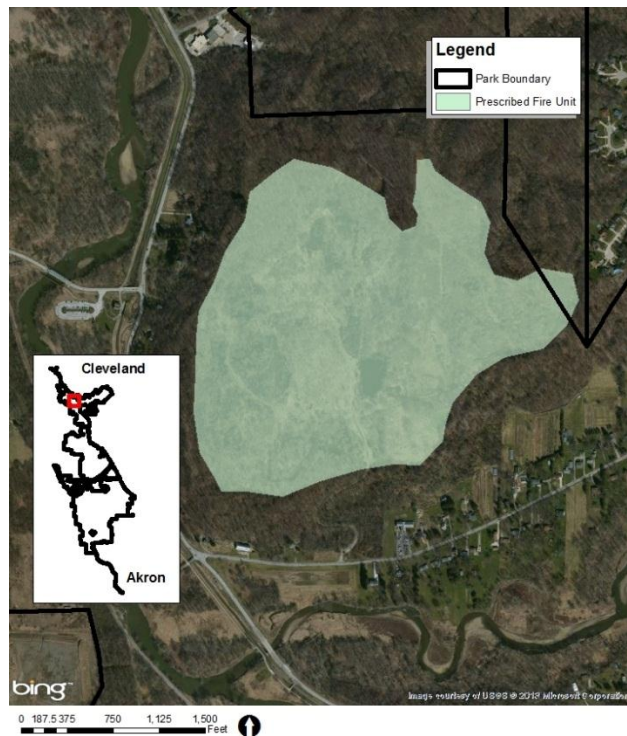


Figure 4. Terra Vista Prescribed Fire Unit.

Prescribed fire would be used to meet objectives for each of the units. An implementation plan will be developed for each site with specifics on timing and size of burn. The boundary of prescribed-fire units would be defined by existing trails and/or low-impact fire lines created using mowers and backpack blowers. Qualified personnel from CVNP and Indiana Dunes National Lakeshore would conduct burns in coordination with local fire departments to achieve objectives identified in site-specific prescribed-fire plans.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSES

In addition to the alternatives described above, the NPS considered two other alternatives related to fire management at CVNP, including (1) use of wildland fire and (2) intensive removal of hazardous fuels at the wildland urban interface. These alternatives are described below.

Use of Wildland Fire. Wildland-fire use is a strategy that allows naturally ignited wildland fires to burn if a fire meets predetermined characteristics and objectives to improve resource conditions within a defined area. Due to the complex mix of private and public lands at CVNP, the fragmented nature of the park, the abundance of historic and non-historic buildings, and the nearby proximity of dense areas of residential and commercial development, use of wildland fire to promote resource objectives was considered and rejected.

Intensive Removal of Hazardous Fuels at the Wildland Urban Interface (WUI). Intensive removal of hazardous fuel throughout CVNP by mechanical means (mowing, hand tools, and chainsaws) was considered and rejected. Major wildfires have not been an issue at CVNP due largely to natural decomposition that has reduced hazardous fuels effectively in park forests. Additionally, existing roads, trails and CVNP's current programs to remove hazard trees and mow around parking lots create unintentional fire breaks that would change fire behavior without additional manual vegetation management.

THE ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The environmentally preferable alternative is the alternative required by 40 CFR 1505.2(b) to be included in NEPA documents that causes the least damage to the biological and physical environment and best protects, preserves and enhances historic, cultural and natural resources. The environmentally preferable alternative is identified by considering and weighing the long-term environmental impacts against short-term impacts and evaluating what best protects resources of concern (43 CFR 46.30).

Although an environmentally preferable alternative must be identified, it is not always the NPS's preferred alternative, which is the alternative the NPS believes best fulfills its statutory mission and responsibilities, given consideration to environmental, economic, technical and other factors.

Accordingly, the environmentally preferable alternative is the Preferred Alternative to suppress wildland fire and expand use of prescribed fire at CVNP. Although some stored carbon would be released more quickly through use of prescribed fire than through decomposition, the Preferred Alternative would promote growth of native vegetation, provide an expanded tool to

manage exotic plants, and improve habitat for numerous species of wildlife, while also improving safety and reducing hazardous fuels.

COMPARATIVE SUMMARY OF ALTERNATIVE IMPACTS

Table 1. Comparative summary of impacts of alternatives.

Impact Topic	No-Action Alternative	Preferred Alternative
<i>Air Quality</i>	Minor, short-term (but cyclical), adverse effect. Prescribed fire would continue to be used to manage fuels and improve habitat at the Borrow Pit, resulting in prescribed burning on 13 acres on a two- to three-year cycle. All burns would be conducted in accordance with permits issued by the Akron Air Quality Management District.	Minor, short-term (but cyclical), adverse effect. Prescribed fire would be expanded for use at the Coliseum and Terra Vista Sites, resulting in prescribed burning on about 223 acres on a three- to five-year cycle. All burns would be conducted in accordance with permits issued by the Akron Air Quality Management District and/or the Cleveland Department of Public Health's Division of Air Quality.
<i>Vegetation</i>	Minor, long-term, beneficial effect. Use of prescribed fire at the Borrow Pit would continue to control non-native, exotic plants and enhance and maintain 13 acres of grassland habitat.	Moderate, long-term, beneficial effect. Use of prescribed fire at the Borrow Pit, Terra Vista and Coliseum Sites would control non-native, exotic plants and enhance and maintain 233 acres of grassland habitat.
<i>Wildlife</i>	Minor, long-term, beneficial effect. Use of prescribed fire at the Borrow Pit would continue to control non-native, exotic plants and enhance and maintain 13 acres of grassland, improving habitat for a variety of species of native wildlife.	Moderate, long-term, beneficial effect. Use of prescribed fire at the Borrow Pit, Terra Vista and Coliseum Sites would control non-native, exotic plants and enhance and maintain 233 acres of grassland, improving habitat for a variety of species of native wildlife.
<i>Endangered, Threatened and Rare Species</i>	Minor, long-term, beneficial effect on grassland species. No effect on other species. Use of prescribed fire at the Borrow Pit would control invasive shrubs that otherwise would crowd out rare fringed gentian, Great Plains ladies' tresses and ground juniper.	Moderate, long-term, beneficial effect on grassland species. No effect on other species. Use of prescribed fire at the Borrow Pit, Terra Vista and Coliseum Sites would control invasive shrubs that otherwise would crowd out rare fringed gentian, Great Plains ladies' tresses and ground juniper and degrade habitat for sedge wren, Henslow's sparrow and bobolink.

<i>Archeological Resources</i>	Negligible, long-term, beneficial effect; 106 summary – no effect on historic properties. Rapid suppression using minimum impact tactics would protect exposed and shallowly buried artifacts from heat damage resulting from wildland fire.	Negligible, long-term, beneficial effect; 106 summary – no effect on historic properties. Rapid suppression using minimum impact tactics would protect exposed and shallowly buried artifacts from heat damage resulting from wildland fire.
<i>Visitor Experience</i>	Minor, long-term, beneficial effect. Continued use of prescribed fire at the 13-acre Borrow Pit Site would provide limited educational opportunities for visitors to observe and learn about benefits of fire on native ecosystems. No trail closures would be necessary.	Moderate, long-term, beneficial effect. Use of prescribed fire on 223 acres at the Borrow Pit, Terra Vista and Coliseum Sites would provide additional educational opportunities for visitors to observe and learn about benefits of fire on native ecosystems. No trail closures would be necessary.

AFFECTED ENVIRONMENT

NATURAL RESOURCES

Air Quality

CVNP is located between the industrialized centers of Akron and Cleveland and is classified as a “class II” air-quality area. Most air pollution at CVNP originates outside the park boundary with point (smoke-stack emissions) and mobile (motor vehicles) sources being the primary causes of air pollution in Cuyahoga and Summit Counties, which surround the park. Ozone, sulfur dioxide, sulfate and small-particulate matter (PM-2.5) in the area occasionally exceeds National Air Quality Standards.

Air pollution affects natural resources in a variety of ways, including injuring plants and reducing visibility (Sanchini, 1986; Bennett, 1995). From 1985-1992, CVNP monitored ozone and sulfur dioxide at the park but discontinued monitoring in the 1990s. Among NPS park units, CVNP ranks as one of the highest for ozone and sulfur dioxide concentrations (USDI, 1992) and ozone alerts are issued regularly in Cuyahoga and/or Summit Counties (which surround CVNP) on hot, summer days. Although some data indicate ozone conditions may be improving in the park’s vicinity, the general quality of air at CVNP continues to warrant significant concern (NPS, 2013).

Vegetation and Habitat including Invasive Plants

More than 1,200 species of plants have been documented at CVNP forming a variety of habitats, including mixed deciduous forest, mixed-evergreen forest, wet meadows, emergent marsh, farmland, grassland and open water. Located in the glaciated Allegheny Plateau of northeastern

Ohio, mixed-mesophytic forests cover approximately 27,000 acres (80 percent) of the Park with the oak-hickory association being the most common. Other forest associations at the Park include maple-oak, oak-beech-maple, maple-sycamore, pine-spruce and hemlock-beech. A long history of intensive land use has created forest at CVNP with vastly different ages and community structures.

The forests of CVNP can be broadly categorized as upland or bottomland forests, based upon landscape position. In upland forests, the dominant vegetation is a mix of hardwood trees, mainly oaks (*Quercus* spp.), hickories (*Carya* spp.), maples (*Acer* spp.) and beech (*Fagus grandifolia*). The groundcover in upland forests tends to be sparse, consisting of mayapple (*Podophyllum peltatum*), trout lily (*Erythronium americanum*), spring beauty (*Claytonia virginica*), toothworts (*Cardamine* spp.), violets (*Viola* spp.), Jack-in-the-pulpit (*Arisaema triphyllum*), and other herbaceous species. Shrub cover in upland forests at the Park is frequently sparse but, when present, often is dominated by maple-leaved viburnum (*Viburnum acerfolium*), spicebush (*Lindera benzoin*), and witchhazel (*Hamamelis virginiana*).

Bottomland forests are generally located in the floodplains of the Cuyahoga River and its tributaries and predominantly support an overstory of ash (*Fraxinus* spp.), cottonwood (*Populus deltoides*), sycamore (*Platanus occidentalis*), box elder (*Acer negundo*), Ohio buckeye (*Aesculus glabra*), silver maple (*Acer saccharinum*) and red maple (*Acer rubrum*). The herbaceous groundcover in these forests tends to be more frequent than in the upland forests. Typical herbaceous species in bottomland forests at the Park include enchanter's nightshade (*Circaea lutetiana*); grasses (*Poa* spp.); sedges (*Carex* spp.); violets (*Viola* spp.); moneywort (*Lysimachia nummularia*); wingstem (*Verbesina alternifolia*); smartweed (*Polygonum* spp.); jewelweed (*Impatiens capensis* and *Impatiens pallida*); wild onions, garlic and leeks (*Allium* spp.); and garlic mustard (*Alliaria petiolata*). Shrub cover is sparse or more frequently absent in these areas. When present, bottomland shrubs consist mainly of viburnums (*Viburnum* spp.), non-native honeysuckles (*Lonicera* spp.), non-native privet (*Ligustrum vulgare*), and non-native multiflora rose (*Rosa multiflora*).

Interspersed among forests are other habitats, including grasslands (approximately 2,000 acres or 6 percent of CVNP), wetlands (approximately 1,700 acres or 5 percent), open water (approximately 150 acres or about 0.5 percent) and agricultural land (approximately 1,300 acres or 4 percent).

The Borrow Pit and Coliseum site are dominated by grassland, while the Terra Vista site now supports mostly shrubland. The Borrow Pit is located on an upland terrace but the native soil was removed during gravel extraction, which lowered the surface elevation about 15-feet below its original grade. The NPS graded the east bank to a 2:1 slope in 1989, restored a thin topsoil cap to the pit, and planted the area in a grass mix that included native species. Terra Vista was similarly disturbed during excavation of soil, sand and gravel and was stabilized through partial regrading, mulching and seeding with a mix of native and non-native grasses by the NPS in 1992. Although not mined, construction activities at the former Richfield Coliseum site disturbed extensive acreage, which subsequently was regraded, mulched and planted following removal of the Coliseum structure in 1999.

The NPS seeded, fertilized, and mulched the Borrow Pit during reclamation. Seeding consisted of 10 lbs. of little bluestem (*Schizachyrium scoparium*), 10 lbs. of Indiangrass (*Sorghastrum nutans*), and 25 pounds of annual rye (*Lolium multiflorum*) per acre. Cool season grasses (*Poa pratensis*, *Festuca* spp., *Bromus* spp.) have invaded gaps between native bunch grasses and dominate some of the area. Deciduous saplings ranging from four- to 15-foot tall are scattered throughout the site and invasive species, such as wild carrot and common teasel (*Dipsacus sylvestris*), are common.

The NPS also regraded, seeded, fertilized and mulched part of the Terra Vista area during reclamation. Upland areas were seeded with 12 pounds of switchgrass (*Panicum virgatum*), five pounds of Indiangrass and 20 pounds of annual ryegrass per acre. By the early 2000s, vegetation at Terra Vista had changed from grassland to non-native shrubland dominated by autumn olive (*Elaeagnus umbellata*). Small patches of native woodland persist, mostly adjacent to old quarry ponds, and are dominated by cottonwood trees interspersed with sycamore and a few, large white oaks. CVNP began controlling autumn olive at the site in 2010 and has re-established about six acres of grassland at the site, which now supports native goldenrods (*Solidago* spp.), yarrow (*Achillea millefolium*), common milkweed (*Asclepius syriaca*), and pilewort (*Erechtites hieraciifolia*), as well as several species of non-native grasses.

After demolition of the former Richfield Coliseum, the Coliseum site was seeded with native and non-native grasses and now mostly supports grassland dominated by non-native species. Canada thistle (*Cirsium arvense*) and common teasel dominate southern portions of the site, while common reed (*Phragmites australis*) dominates channels and some wetlands. Management of autumn olive since 2008 has reduced the extent of this species and recreated open fields in the southeast corner of the site. The Coliseum site is managed actively to maintain fields by rotationally mowing one-third of the site each year on a three-year cycle.

Approximately 20 percent of the 1,200+ species of plants documented at CVNP are not native to the area; approximately 50 of those non-native species are considered locally invasive and able to over-run native habitat, displace native species, and form large monocultures of limited habitat value to native wildlife (Djuren and Young 2007).

The most common exotic, invasive plants at CVNP (in descending order) are multiflora rose, garlic mustard, reed canarygrass (*Phalaris arundinacea*), black locust (*Robinia pseudoacacia*), Japanese knotweed (*Polygonum cuspidatum*), privet, Japanese barberry (*Berberis thunbergii*), common reed (*Phragmites australis*), glossy buckthorn (*Frangula alnus*), Kentucky bluegrass (*Poa pratensis*) and autumn olive (Djuren and Young 2007). All of these species occur throughout the park with some having broad environmental tolerances enabling them to inhabit upland and bottomland forests, old fields and shrublands (e.g., multiflora rose, garlic mustard, privet and glossy buckthorn). Other exotic plants at the park dominate wetlands and riparian areas (e.g., reed canarygrass, Japanese knotweed and common reed), while others primarily inhabit drier uplands (e.g., black locust and autumn olive).

Wildlife

Surrounded by urban development, CVNP provides a refuge for wildlife. Investigators have documented about 250 species of birds, 36 species of mammals, 18 species of amphibians, and 20 species of reptiles, as well as many other aquatic species and invertebrates. The park's fragmented configuration and land-use history continue to affect wildlife at CVNP.

Some wildlife populations have increased substantially in the last decade and have reached nuisance levels within the park, including raccoons, Canada geese and white-tailed deer. These species are pervasive throughout the park, affect regeneration of native habitat, and come into regular contact with park visitors.

Since the park's establishment in 1974, several extirpated species have recolonized naturally within the park and surrounding areas (e.g., beaver, river otter and bald eagle). Great blue herons have established large nesting colonies at several areas of the park, which typically supports nearly 200 heron nests. CVNP also protects numerous wetlands that provide breeding habitat for many species of amphibians.

In 2001, the Ohio Audubon Society designated the park an Important Birding Area, indicating CVNP is considered by experts to be an essential region for bird conservation and that loss of habitat at CVNP would have a disproportionately large impact on bird populations relative to other areas.

The CVNP forests are heavily fragmented by roads, suburban development, recreational areas (ski areas, sledding hills, picnic areas, golf courses and event sites), a railroad, utility corridors, and agricultural lands throughout the park. The largest tract of contiguous forest at the park is 1,760 acres near the Blossom Music Center; other patches of forest are dissected by roads and trails and support large amounts of forest edge, which reduces habitat value for species dependent on large patches of interior forest.

Endangered, Threatened, and Rare Species

Only one federally listed species of animal (Indiana bat [*Myotis sodalis*]) has been documented at CVNP. Other species of federal concern in the vicinity of the park (Cuyahoga and Summit Counties) include the endangered Kirtland's warbler (*Setophaga kirtlandii*), endangered piping plover (*Charadrius melodus*), threatened northern monkshood (*Aconitum noveboracense*), proposed-endangered northern long-eared bat (*Myotis septentrionalis*), and species-of-concern bald eagle (*Haliaeetus leucocephalus*) (USFWS, 2014 – Appendix B). No critical habitat has been designated for any listed species at or near CVNP.

Although the park is within the historic range of the federally threatened northern monkshood and prairie-fringed orchid (*Platanthera leucophaea*), these species have not been found at CVNP despite numerous surveys over many years. Northern monkshood inhabits moist areas near the base of shaded cliffs, typically near cool streams, and no suitable habitat has been documented at the park. Fringed orchid inhabits a variety of habitats including grasslands but – despite surveys – has not been observed within areas proposed for prescribed fire or other grasslands at the park.

Though delisted in 2007, bald eagles remain a federal species of concern and are protected under the Bald and Golden Eagle Protection Act. A pair of bald eagles has nested in the Pinery Narrows area in a northern section of the park since 2007. The park closes portions of the Towpath Trail and limits clearing of hazardous trees within the bald-eagle nesting zone from February to July. In addition, a pair of state-threatened peregrine falcons (*Falco peregrinus*) has nested beneath the Interstate 80 bridge south of the Boston Store Visitor Center since 2008.

The park is within the range of the federally endangered piping plover and Kirtland's warbler, but these species have not been documented at CVNP and no suitable breeding habitat exists within proposed project areas. The park also is within the range of the eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*), a candidate species for federal listing; however, this species also has not been documented at CVNP and a habitat assessment concluded the park has little potential to support a population of massasauga (Lockhart 2003).

Although actions considered in this document would not affect federally listed plants or animals, several grassland-nesting birds considered "species of concern" by the Ohio Department of Natural Resources (ODNR) are known to inhabit areas proposed for use of prescribed fire at the Coliseum Site. These species include sedge wren (*Cistothorus platensis*), Henslow's sparrow (*Ammodramus henslowii*) and bobolink (*Dolichonyx oryzivorus*).

Similarly, although actions considered in this document would not affect federally listed plants, several grassland plants listed as "potentially threatened" by the ODNR have been documented at the Borrow Pit Site, including Great Plains lady's tresses (*Spiranthes magnicamporum*) and fringed gentian (*Gentianopsis crinita*). In addition, the state endangered ground juniper (*Juniperus communis*) also has been documented at the Borrow Pit. Despite numerous surveys, rare plants have not been documented at the Coliseum or Terra Vista Sites.

CULTURAL RESOURCES

Humans have inhabited or passed through the Cuyahoga Valley for nearly 12,000 years and archaeological remains are found throughout the park. The Cuyahoga River was utilized for centuries by American Indians as a means of access between Lake Erie and the Ohio River. However, Euro-American settlement began only when this part of the Northwest Territories was opened as Connecticut's Western Reserve in 1798. Use of the area progressed slowly until 1827 when the Ohio and Erie Canal opened along the Cuyahoga River between Cleveland and Akron. Commerce, gristmills, sawmills, and related service industries grew to meet increasing demands. The cities of Cleveland and Akron continued to develop and prosper with subsequent development of a railroad line between the cities.

The CVNP has a rich cultural legacy demonstrated in historic structures and scenes. Remains of the Ohio & Erie Canal offer a glimpse into the past, while leased farms at the park help preserve the agricultural heritage of the valley. In 1996, Congress designated the lower 50 miles of the Cuyahoga River as the Ohio & Erie Canal National Heritage Corridor, and the same section was designated a National Scenic Byway in 2000. The Cuyahoga River was named one of the fourteen American Heritage Rivers in 1998 due to its unique historical, cultural and environmental history.

Archaeological Resources

Numerous prehistoric and historic archeological sites exist within the park, as well as standing structures and ruins of historical significance that are included on the park's List of Classified Structures. Undiscovered artifacts and features may be imbedded in soil or covered by vegetation. Artifacts are frequently found near historic structures and other features that supported human activity.

Although a comprehensive archaeological survey of land within the CVNP boundary has not been completed, investigations have uncovered numerous artifacts at the park, including flatware, coins, marbles, tumblers, Derbyshire stoneware, shell-edged pearlware, tobacco pipes and transfer-print ceramics. In addition, two archeological sites have been identified within the boundaries of one of the areas proposed for use of prescribed fire at the park.

VISITOR EXPERIENCE

Although the Cuyahoga River watershed covers less than two percent of Ohio's land area, nearly 15 percent of Ohio's population lives within the watershed, including the large urban areas of Akron and Cleveland, located at the southern and northern ends of the park, respectively. Originally established as a national recreation area before being converted to a national park, high-quality visitor experiences and recreational opportunities remain a priority for the park. The House Report preceding authorization of the park stated “[t]he proposed recreation area...protects numerous sites of historic significance, in addition to preserving this pastoral, relatively undeveloped valley as a setting for outdoor recreation.” CVNP consistently ranks as one of the ten most-visited national parks in the country.

CVNP offers ranger-guided programs, concerts, scenic train rides, sightseeing opportunities, nature walks, hiking, biking, picnicking, bird watching, fishing, equestrian trails, and winter sports. The park provides an escape from the nearby hustle of city life, offering quiet solitude, and family-friendly activities.

Accordingly, park purposes have a strong relevance in planning for visitor experience, including functioning as a place to explore, discover, and learn about natural and cultural history; providing open space and a gateway to understanding the National Park System; and emphasizing the park's role as a model of stewardship, where visitors can see how humans use and impact the environment.

ENVIRONMENTAL CONSEQUENCES

The National Environmental Policy Act (NEPA) requires that environmental documents disclose the environmental impacts of a preferred federal action, reasonable alternatives to that action, and adverse environmental effects that cannot be avoided should the proposed action be implemented. When evaluating environmental effects, the NEPA requires the NPS to consider the context, intensity and duration of impacts, indirect impacts, and cumulative impacts, as well as measures to mitigate impacts, where applicable. NPS policy further requires evaluation of “impairment” of physical resources in all environmental documents. The following sections

evaluate the impacts, including consideration of impairment, of two alternatives on natural resources, cultural resources and visitor experience.

METHODOLOGY

General Definitions. The following definitions were used to evaluate the context, intensity, duration, and cumulative nature of impacts associated with project alternatives:

Context is the setting within which an impact is analyzed, such as the affected region, society as a whole, the affected interests, and/or a locality. In this EA, the intensity of impacts are evaluated within a local (i.e., project area) context, while the intensity of the contribution of effects to cumulative impacts are evaluated in a park-wide context.

Intensity is a measure of the severity of an impact, which may be (1) *negligible* when the impact is localized and not measurable or at the lowest level of detection; (2) *minor* when the impact is localized and slight but detectable; (3) *moderate* when the impact is readily apparent and appreciable; or (4) *major* when the impact is severely adverse and highly noticeable. For example, major impacts would include an air-quality effect that violates a Class II airshed standard, a wildlife effect that extirpates a species at the park, or a visitor-experience effect that elicits written contact from many visitors.

Duration is a measure of the time period over which the effects of an impact persist, which may be (1) short term when impacts occur only during construction or last less than one year; or (2) long term when impacts last one year or longer.

Cumulative impacts are impacts on the environment that result from the incremental (i.e., additive) impact of an action when added to other past, present, and reasonably foreseeable future actions regardless of who undertakes such actions. Cumulative impacts may result from individually minor but collectively significant actions taking place over a period of time.

More than 95 percent of wildland fires in the vicinity of CVNP are caused by humans with lightning igniting very few fires in the region (Daniel Yaussy, USDA Forest Service, written communication). Small-scale wildfires at CVNP follow this same pattern with humans being the primary source of wildland fire at the park. No wildland fires showing extreme fire behavior have been documented at CVNP since its establishment in 1974.

Cumulative Impact Scenario. A variety of past, present and reasonably foreseeable actions have affected and will continue to affect air quality, vegetation, wildlife, rare species, archeological resources and visitor experience at and in the vicinity of the park.

Primary factors affecting air quality at the park have been and will continue to be non-point sources, including industrial production and automobile emissions. Wildland fire is uncommon in the area and use of prescribed fire is limited, although Cleveland Metroparks uses prescribed fire in Cuyahoga County and Summit Metro Parks uses prescribed fire in Summit County. Wildfire will continue to be suppressed at the park and throughout the region, while use of prescribed fire will continue to be uncommon for the foreseeable future.

The primary factor affecting vegetation at the park has been human disturbance. Prior to European settlement, Native Americans used fire to manage habitat, particularly to improve hunting opportunities. After European settlement, settlers cleared almost all existing forests to create homesteads and farmland. The effects of this clearing are still evident throughout northeast Ohio, where many old fields have been abandoned and left to regenerate into forest or – more recently – shrubland dominated by invasive species.

Similarly, human disturbance and hunting have been the largest factors affecting wildlife in the area. Prior to European settlement, Native Americans used fire to manage habitat, particularly to improve hunting opportunities for game species, such as deer and turkey. After European settlement, settlers cleared almost all existing forests to create homesteads and farmland and hunted many species to extinction in northeast Ohio (e.g., beaver, deer and wolf). Although some populations have begun to re-establish themselves in the project area (e.g., black bear) and other have rebounded with human intervention (e.g., deer), the effects of European settlement on wildlife are still evident throughout northeast Ohio.

Primary factors affecting rare species at and near the park include human disturbance and invasion by non-native species. Although native grasslands were uncommon in northeastern Ohio prior to European settlement, extant grasslands in the region are dominated mostly by non-native, invasive plants. In addition, invasion by non-native shrubs and second-growth forest continue to reduce the acreage of such grasslands at and near CVNP. More recently, white-nose syndrome has been documented in the vicinity of CVNP and is now a primary threat to bats, possibly overshadowing historic loss of habitat to human activity.

Human disturbance resulting from farming, forestry, and residential and industrial development is the primary factor affecting archeological resources at and near CVNP. Although human disturbance is limited now within park boundaries, natural disturbance associated with erosion continues to affect archeological sites in the area.

Visitor experience generally is dominated by recreational activities at CVNP, including hiking, biking, jogging, birding and riding the Cuyahoga Valley Scenic Railroad. Park staff and volunteers provide a variety of formal and informal programs to park visitors, focusing on historical, ecological and/or cultural content. In addition, park visitors attend concerts, farm markets and educational presentations at CVNP.

Cultural Resources Analyses. The assessment of impacts on archeological resources was made in accordance with regulations of the Advisory Council on Historic Preservation (36 CFR 800), which implement Section 106 of the National Historic Preservation Act (NHPA). After determining areas of potential effect, archeological resources listed or eligible for listing in the National Register of Historic Places were identified (see "Existing Conditions, Cultural Resources" above). Subsequently, an assessment was made of the nature and extent of effects on cultural resources that would result from undertaking project alternatives.

Any action that alters any attribute that qualifies a cultural resource for listing in the National Register is considered an effect. Adverse effects may result when the integrity of a resource's significant characteristics is diminished. Effects on cultural resources are described in this EA in

accordance with NHPA criteria using NEPA terminology intended to convey the duration, intensity, and beneficial or adverse nature of potential impacts. For instance, analysis of the duration of impacts is required under the NEPA, but is not required - and typically is not considered - in assessing effects under the NHPA. The intensity of impacts on cultural resources is defined as follows:

negligible when the impact is barely perceptible and not measurable. Significant character-defining attributes of historic properties (including the informational potential of archeological resources) are not appreciably diminished by the undertaking;

minor when the impact is perceptible and measurable. The effects remain localized and confined to a single element contributing to the significance of a larger national register property/district, or archeological site(s) with low to moderate data potential;

moderate when the impact is sufficient to alter character-defining features of historic properties, generally involving a single or small group of contributing elements; a property individually significant at the local or regional level; and/or an archeological site(s) with moderate to high data potential; or

major when the impact results in a substantial and highly noticeable change in character-defining features of historic properties, generally involving a large group of contributing elements; a property of exceptional individual significance at the state or national level; and/or an archeological site(s) with high to exceptional data potential.

Prior to a general "Conclusion" at the end of each impact evaluation on cultural resources, a "Section 106 Summary" will present the NPS's determination of the effect of project alternatives on identified archeological resources and cultural landscapes, in accordance with the NHPA.

Fire and ecological research for the northeastern United States and Great Lakes Region, as well as the expert opinion of NPS staff, provide the basis for determining impacts (Smith 2001; Forest Service 1981; USDA 2003; Russel, et al. 1999; Lyons, et al. 2000; Huff and Smith 2000; Gill 1981; Cooper 1981; Adams et al. 1982; and others).

IMPAIRMENT OF PARK RESOURCES OR VALUES

NPS management policies (NPS 2006) and Director's Order-12, *Conservation Planning, Environmental Impact Analysis, and Decision-making* (NPS 2001), require consideration of potential "impairment" of resources, in addition to NEPA and NHPA analyses. Accordingly, a determination of impairment is made in the "Conclusion" section of each impact topic considered in this EA under "Environmental Consequences".

The fundamental purpose of the National Park System, established by the Organic Act of 1916 and reaffirmed by the General Authorities Act, as amended, is the conservation of park resources and values for the enjoyment of future generations. NPS managers must avoid or minimize to the greatest extent practicable adverse impacts on park resources and values. However, the NPS is granted legal discretion to allow impacts to park resources and values when necessary and

appropriate to fulfill the purposes of a park, as long as impacts do not impair affected resources or values. Such discretion is limited by the NPS's legal requirement to maintain park resources and values in an unimpaired condition, unless a particular law directly specifies otherwise.

"Impairment" is any impact that, in the professional judgement of the responsible NPS manager, would harm the integrity of park resources or values. An impact to any park resource or value may constitute impairment. However, impacts are more likely to constitute impairment when they affect resources or values that are

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- identified as a goal in the park's General Management Plan or other relevant NPS planning documents.

Impairment may result from NPS activities in managing the park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park.

IMPACTS ON NATURAL RESOURCES

Impacts on Air Quality

No Action Alternative

Under the No Action Alternative, immediate suppression of wildland fire would continue to occur throughout the park and prescribed fire would continue to be used to manage habitat and fuels at the 13-acre Borrow Pit Site. The Borrow Pit would be burned on a regular basis, resulting in release of smoke and ash on a two- to three-year cycle. Prescribed fire would be implemented only under a site-specific burn plan in accordance with applicable conditions as permitted by the Akron Regional Air Quality Management District, including consideration of appropriate weather, wind and fuel conditions. General activities to suppress wildland fire on an as-needed basis would require use of tools and vehicles (e.g., chainsaws and all-terrain vehicles) that would release air pollutants associated with combustion of fossil fuels.

Full Suppression with Use of Prescribed Fire at Three Sites Alternative (Preferred Alternative)

Under the Preferred Alternative, impacts associated with wildfire suppression would be similar to those under the No Action Alternative (e.g., release of air pollutants associated with use of chainsaws and vehicles). However, in addition to the 13-acre Borrow Pit, this alternative would include release of smoke and ash associated with cyclical use of prescribed fire at the 80-acre Coliseum Site and the 130-acre Terra Vista Site. Depending on rotation (three- to five-year cycles), 45 to 74 acres of parkland would be managed annually with prescribed fire. Similar to the No Action Alternative, prescribed fire under the Preferred Alternative would occur only in accordance with site-specific burn plans and applicable conditions permitted by the Akron Regional Air Quality Management District (Borrow Pit and Coliseum Sites) or the Cleveland

Department of Public Health's Division of Air Quality (Terra Vista Site). Appropriate weather, wind and fuel conditions would remain important factors. CVNP staff would notify nearby residents and businesses in advance of any prescribed fire.

Cumulative Impacts

The No Action and Preferred Alternatives would add a minor, short-term (but cyclical), adverse contribution to cumulative impacts on air quality in the project area.

Conclusions

Under the No Action Alternative, fire-related activities would have a minor, short-term (but cyclical), adverse effect that would not impair air quality at the park or in the park vicinity.

Under the Preferred Alternative, fire-related activities would have a moderate, short-term (but cyclical), adverse effect that would not impair air quality at the park or in the park vicinity.

Impacts on Vegetation and Habitat including Invasive Plants

No Action Alternative

In general, the No Action Alternative would have limited impacts on vegetation at the park. Mowing, hazard tree removal, and natural decomposition would continue to provide the primary mechanisms for vegetation and hazard-fuel management at the park. However, since fire is an effective method for controlling many exotic plants, absence of fire throughout the park (excepting the Borrow Pit) would continue to contribute to colonization and expansion of non-native species, particularly shrubby species that can be top-killed by prescribed and/or wildland fire. In addition, on a broader scale, in the absence of fire or other natural disturbance, maple-beech forests would continue to succeed and replace oak-hickory forests throughout the park.

Prescribed fire would be used on a small-scale at the 13-acre Borrow Pit Site to manage vegetation and promote native, grassland species. This use would benefit native vegetation at the site by helping control non-native, invasive plants (particularly woody species) and by promoting native, fire-tolerant/dependent species, including prairie grasses and forbs.

Full Suppression with Use of Prescribed Fire at Three Sites Alternative (Preferred Alternative)

Under the Preferred Alternative, impacts would be similar to No Action. Mowing, hazard tree removal, and natural decomposition would continue to provide the primary mechanisms for vegetation and hazard-fuel management at the park. And general absence of fire would continue to contribute to colonization and expansion of non-native species, particularly shrubby species that can be top-killed by prescribed and/or wildland fire. In addition, on a broader scale, in the absence of fire or other natural disturbance, maple-beech forests would continue to succeed and replace oak-hickory forests throughout the park.

However, the use of prescribed fire under this alternative would be expanded to include two additional sites (Coliseum and Terra Vista) covering approximately 223 acres of parkland. These sites currently are dominated by non-native, invasive species and prescribed fire would be used as a tool to manage their density and distribution. Prescribed fire would be particularly effective at top-killing woody vegetation, permitting park staff and volunteers to more easily access sites and treat exotic plants with herbicide or other tools. This also would provide an essential step to restore native vegetation to the sites, converting non-native grassland to native prairie, as well as eliminating non-native shrubs at Terra Vista. Fire without active seeding of native species would help control the invasion of woody plants but would not produce native prairie.

Cumulative Impacts

The No Action and Preferred Alternatives would add a minor, long-term, beneficial contribution to cumulative impacts on vegetation in the project area.

Conclusions

Under the No Action Alternative, fire-related activities would have a minor, long-term, beneficial effect that would not impair vegetation at the park or in the park vicinity.

Under the Preferred Alternative, fire-related activities would have a moderate, long-term, beneficial effect that would not impair vegetation at the park or in the park vicinity.

Impacts on Wildlife

No Action Alternative

In general, the No Action Alternative would have impacts on wildlife similar in intensity to those on vegetation at the park. Mowing and hazard tree removal would continue to selectively eliminate nesting, denning and foraging sites for some wildlife (e.g., woodpeckers and raccoons). In addition, in the absence of fire, continued succession of oak-hickory forest to habitats dominated by beech and maple would reduce acorn and nut production, which are important food sources for many species of wildlife (e.g., turkeys and squirrels).

Prescribed fire would be used on a small-scale at the 13-acre Borrow Pit Site to manage vegetation and promote native, grassland species. Due to the small size of this site, grassland-dependent wildlife, including grassland-nesting birds, are not common in the area. However, prescribed fire would help promote native grassland vegetation, which – in turn – would enhance populations of insects and arthropods dependent on prairie grasses and wildflower (e.g., a variety of native bees and butterflies). Use of prescribed fire itself would result in the direct death of some creatures, although numbers should be small, since burns would be conducted outside nesting and other active seasons for birds and reptiles (Russel et al. 1999; Lyons et al. 2000).

At other sites throughout the park, grassland habitat would continue to be maintained through mowing (e.g., Coliseum Site) or lost to exotic shrubs (e.g., Terra Vista Site).

Full Suppression with Use of Prescribed Fire at Three Sites Alternative (Preferred Alternative)

Under the Preferred Alternative, impacts would be similar to No Action. Mowing and hazard tree removal would continue to selectively eliminate nesting, denning and foraging sites for some wildlife (e.g., woodpeckers and raccoons). In addition, in the absence of fire, continued succession of oak-hickory forest to habitats dominated by beech and maple would reduce acorn and nut production, which are important food sources for many species of wildlife (e.g., turkeys and squirrels).

However, the use of prescribed fire under this alternative would be expanded to include two additional sites (Coliseum and Terra Vista) covering approximately 223 acres of parkland. These sites currently are dominated by non-native, invasive species and prescribed fire would be used as a tool to promote native habitat with a corresponding benefit to native wildlife that depend on native plants for survival (e.g., monarch butterflies). Using prescribed fire to promote native habitat should improve conditions for a variety of grassland-dependent wildlife that currently utilize the Coliseum site by re-establishing the foundation of food chains by increasing arthropod diversity and biomass (e.g., bobolinks and meadowlarks). In addition, use of prescribed fire at Terra Vista may provide opportunities for similar – and similarly rare – species of grassland-dependent wildlife to move into the area (e.g., sedge wren and Henslow's sparrow).

Cumulative Impacts

The No Action and Preferred Alternatives would add a minor, long-term, beneficial contribution to cumulative impacts on wildlife in the project area.

Conclusions

Under the No Action Alternative, fire-related activities would have a minor, long-term, beneficial effect that would not impair wildlife at the park or in the park vicinity.

Under the Preferred Alternative, fire-related activities would have a moderate, long-term, beneficial effect that would not impair wildlife at the park or in the park vicinity.

Impacts to Endangered, Threatened and Rare Species

No Action Alternative

Except for grassland plants at the Borrow Pit, the No Action Alternative would have no effect on federal- or state-listed species at CVNP. No trees or other habitat for Indiana bat or northern long-eared bat would be affected by prescribed fire and prescribed burns would be conducted in early spring or late fall when bats are not likely to be present in the vicinity of the park. No hazardous trees exhibiting characteristics that might support bats (e.g., large trunks, dead branches and/or sloughing bark) would be removed during times or at sites with potential to support bats (i.e., between April 1 and September 30). In addition, no prescribed fire would be used between April 15 and September 15 to avoid potential effects on bats resulting from smoke production. No breeding habitat for piping plover or Kirtland's warbler is present in areas

proposed for use of prescribed fire and limiting use of prescribed fire between late fall and early spring would preclude potential effects on these migratory birds. Habitat for northern monkshood also does not occur at the Borrow Pit Site, precluding any effects on this species.

The Borrow Pit Site is located seven miles south of the park's only nesting site for bald eagles, so prescribed fire would not be used within seven miles of that site.

At least three species of state-listed rare plants have been documented at the Borrow Pit. Fringed gentian and Great Plains ladies' tresses are grassland-dependent, fire-tolerant species that are easily displaced by non-native, invasive plants, including woody species present at the Borrow Pit. Autumn olive is particularly problematic for prairie plants, due to its ability to colonize grasslands and displace herbaceous species. Use of prescribed fire at the Borrow Pit Site would help control invasive plants and also remove accumulated thatch that could interfere with germination and expansion of existing populations of fringed gentian and Great Plains ladies' tresses. Both of these wildflowers are late-season bloomers and prescribed fire in the spring should increase nutrient cycling and provide greater availability of mineral resources.

Although ground juniper is less fire-tolerant than gentian and ladies' tresses, it also may be displaced by invasive, woody plants. Park staff protected ground juniper from extreme heat during the March 2012 prescribed burn at the Borrow Pit by mowing fire breaks around plants and monitoring fire behavior during the burn; park staff would implement similar actions during future burns to protect ground juniper from potential damage from prescribed fire.

Full Suppression with Use of Prescribed Fire at Three Sites Alternative (Preferred Alternative)

Under the Preferred Alternative, prescribed fire would benefit rare, native plants as described above under No Action. No trees or other habitat for Indiana bat or northern long-eared bat would be affected by prescribed fire and prescribed burns would be conducted in early spring or late fall when bats are less likely to be present at the park. No hazardous trees exhibiting characteristics that might support bats (e.g., large trunks, dead branches and/or sloughing bark) would be removed during times or at sites with potential to support bats (i.e., between April 1 and September 30). In addition, no prescribed fire would be used between April 15 and September 15 to avoid potential effects on bats resulting from smoke production. No breeding habitat for piping plover or Kirtland's warbler is present in areas proposed for use of prescribed fire and limiting use of prescribed fire between late fall and early spring would preclude potential effects on these migratory birds. Habitat for northern monkshood also does not occur in areas proposed for use of prescribed fire.

Prescribed fire would not be used within one-half mile of nesting bald eagles to avoid potential effects on this species. The Terra Vista Site is about four miles north, while the Borrow Pit and Coliseum sites are about seven miles south, of the closest known site that supports nesting eagles.

Seasonally-timed prescribed fire at the Coliseum Site in the early spring and/or late fall would improve native habitat for rare, ground-nesting birds, including sedge wren, Henslow's sparrow and bobolink. Prescribed fire at the Coliseum, in association with native seeding, would promote

growth of native plants more suited to supporting native wildlife by enhancing biomass of insects and arthropods at lower trophic levels.

Benefits to state-listed rare plants, including fringed gentian, Great Plains ladies' tresses and ground juniper which have been documented only at the Borrow Pit Site, would be similar to those described above under the No Action Alternative.

Cumulative Impacts

The No Action and Preferred Alternatives would add a minor, long-term, beneficial contribution to cumulative impacts on rare, grassland species in the project area but would not affect other rare plants and animals.

Conclusion

Under the No Action Alternative, fire-related activities would have a minor, long-term, beneficial effect that would not impair rare, grassland species at the park (i.e., fringed gentian, Great Plains ladies' tresses and ground juniper). The No Action Alternative would have no effect on other rare species of potential concern.

Under the Preferred Alternative, fire-related activities would have a moderate, long-term, beneficial effect that would not impair rare, grassland species at the park (i.e., fringed gentian, Great Plains ladies' tresses, ground juniper, sedge wren, Henslow's sparrow and bobolink). The Preferred Alternative would have no effect on other rare species of potential concern.

IMPACTS ON CULTURAL RESOURCES

Impacts on Archaeological Resources

No Action Alternative

Under the No Action Alternative, immediate suppression of wildland fire would continue. Fire fighters would avoid impacting archaeologically sensitive areas and use minimum impact suppression techniques (MIST) to avoid damaging surface and shallowly-buried artifacts. In addition, rapid suppression of wildland fire would prevent damage to artifacts by heat generated by such fires; artifacts can be damaged directly by heat generated by wildland fire, if artifacts reside in the upper-most few inches of soil. Exposed and shallowly-buried features are particularly vulnerable to super-heating and damage from falling debris.

Under No Action, prescribed fire only would be undertaken at the Borrow Pit, an area which has been extensively disturbed by excavating the top ten to 15 feet of soil and gravel. No archeological sites have been identified in the area and none would be expected following such extensive disturbance. In addition, several inches of compost were added to the site during reclamation, creating a buffer to fire-generated heat in the unlikely circumstance unknown archeological artifacts are present at the site. Regardless, construction of fire lines to contain

prescribed fire at this site would entail only mowing, raking and/or blowing of surface debris with backpack blowers.

Full Suppression with Use of Prescribed Fire at Three Sites Alternative (Preferred Alternative)

Under the Preferred Alternative, impacts for fire suppression would be similar to those under the No Action Alternative. Fire fighters would avoid impacting archaeologically sensitive areas and use MIST to avoid damaging surface and shallowly-buried artifacts. In addition, rapid suppression of wildland fire would prevent damage to artifacts by heat generated by such fires. Exposed and shallowly-buried features would be particularly vulnerable to super-heating and damage from falling debris.

Under this alternative, prescribed fire would be undertaken at the Borrow Pit and two other sites totaling about 223 acres. Although all three sites have been extensively disturbed, archeological features have been documented in two locations at one of the sites. However, similar to the Borrow Pit, both the Coliseum and Terra Vista sites have been covered with several inches of compost during reclamation and no ground-disturbing activities would be used to prepare sites for prescribed fire. In particular, to the greatest extent possible, existing paths would be used for fire lines at Terra Vista; other fire lines created to contain prescribed fire at the sites would be created only through mowing, raking and/or blowing of surface debris with backpack blowers.

Cumulative Impacts

The No Action and Preferred Alternatives would add a negligible, long-term, beneficial contribution to cumulative impacts on archeological resources in the project area by preventing potential damage resulting from heat generated by uncontrolled wildland fire.

Conclusions

Under the No Action Alternative, fire-related activities would have a negligible, long-term, beneficial effect that would not impair archeological resources at the park or in the park vicinity.

Under the Preferred Alternative, fire-related activities also would have a negligible, long-term, beneficial effect that would not impair archeological resources at the park or in the park vicinity.

Section 106 Summary. After applying the Advisory Council on Historic Preservation's criteria of adverse effects (36 CFR 800.5, *Assessment of Adverse Effects*), the NPS concludes that implementation of ***the no-action alternative and/or preferred action would have no effect on historic properties/archeological resources*** that are listed or eligible for listing in the National Register of Historic Places. Consultation with the Ohio State Historic Preservation Office (SHPO) has been concluded and the SHPO has concurred with the NPS's opinion (Appendix A).

IMPACTS ON VISITOR EXPERIENCE

No Action Alternative

Under the No Action Alternative, immediate suppression of wildland fire would continue. Limited areas would continue to be closed temporarily to visitors while park staff mow and/or remove hazard trees. In addition, in case of wildland fire, visitors would be excluded temporarily from affected areas for safety reasons during suppression activities.

Although the popular Buckeye Trail runs along the eastern side of the Borrow Pit Site, no trails are present in the Borrow Pit itself and no visitors would be excluded from the area during prescribed fire. However, easy access to the site would provide an unusual opportunity for visitors to observe use of prescribed fire in a safe environment and would create an equal opportunity for CVNP to provide educational and interpretive programming to park visitors concerning the beneficial use of prescribed fire at the park.

Full Suppression with Use of Prescribed Fire at Three Sites Alternative (Preferred Alternative)

Under the Preferred Alternative, similar to No Action, immediate suppression of wildland fire would continue. Limited areas would continue to be closed temporarily to visitors while park staff mow and/or remove hazard trees. In addition, in case of wildland fire, visitors would be excluded temporarily from affected areas for safety reasons during suppression activities.

Similar to the Borrow Pit, no designated trails are present at the Coliseum or most of Terra Vista, although informal trails have developed and continue to be used at Terra Vista. In addition, birding has become a popular past time at the Coliseum Site and birders often visit the site with particular interest in observing rare, grassland birds. In the absence of formal trails, no visitors would be excluded formally excluded from sites during prescribed fire, although sentries would be posted on social trails to ensure public safety. Similar to the No Action Alternative, easy access to all three sites proposed for use of prescribed fire would provide an unusual opportunity for visitors to observe use of such fire in a safe environment; use of prescribed fire at these sites also would create an opportunity for CVNP to provide educational and interpretive programming to park visitors concerning the beneficial use of prescribed fire at the park.

Cumulative Impacts

The No Action and Preferred Alternatives would add a minor, long-term, beneficial contribution to cumulative impacts on visitor experience in the project area by creating an opportunity to provide a visitor experience and programming currently unavailable in the local vicinity (i.e., safe, viewable access to prescribed fire with associated interpretive programming).

Conclusions

Under the No Action Alternative, fire-related activities would have a minor, long-term, beneficial effect that would not impair visitor experience at the park or in the park vicinity.

Under the Preferred Alternative, fire-related activities would have a moderate, long-term, beneficial effect that would not impair visitor experience at the park or in the park vicinity.

PUBLIC INVOLVEMENT

The preferred alternative described and analyzed in this EA was presented by park staff and discussed at numerous meetings, including a public-scoping meeting attended by the public and park staff on January 31, 2013. Requests for scoping comments were sent to more than 40 interested parties and a press notice was released to local news and radio outlets on January 25, 2013. A notice of intent to prepare an EA and solicit initial scoping comments from the public also was posted on CVNP's facebook page on January 28, 2013. The public-scoping period ended February 15, 2013.

In addition, park staff discussed the project with representatives from the Akron Regional Air Quality Management District and the Cleveland Department of Public Health's Division of Air Quality; park staff visited the Borrow Pit and Coliseum Sites with a representative from the Akron Regional Air Quality Management District in 2012.

This EA will be placed on formal public review for at least 30 days on the park's website (www.nps.gov/cuva) and the NPS's planning website (parkplanning.nps.gov); park staff will place notices on the park's website and facebook page to notify the public of availability and to solicit public comments during the review period.

CONSULTATION AND COORDINATION

The following agencies were contacted and/or consulted during preparation of this EA:

Ohio State Historic Preservation Office (SHPO). In accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and the 2008 *Programmatic Agreement Among the National Park Service, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act*, the park's determination of 'no adverse affect' on historic properties or features was forwarded to the SHPO in September 2012. Subsequently, the SHPO concurred with CVNP's determination (Appendix A).

U.S. Fish and Wildlife Service, Ecological Services, Reynoldsburg, Ohio (USFWS). The NPS adopted previous correspondence obtained through informal consultation with the USFWS on other projects at CVNP, as well as species lists publicly available on the internet at <http://www.fws.gov/midwest/ohio/documents/OhioTECountyListMay2013.pdf>. The USFWS verified by telephone on May 21, 2014, that no new species of concern have been identified in the project area (Zimmerman, personal communication). The USFWS provided a formal response to informal consultation on June 24, 2014 (Appendix B) and recommendations from that consultation have been incorporated into this document.

COMPLIANCE FRAMEWORK

The following laws and associated regulations provided direction for the design of project alternatives, the analysis of impacts and the formulation of mitigation/avoidance measures:

National Environmental Policy Act of 1969 (NEPA) (Title 42 U.S. Code Sections 4321 to 4370 [42 USC 4321-4370]). The purposes of NEPA include encouraging "harmony between [humans] and their environment and promote efforts which will prevent or eliminate damage to the environment. . .and stimulate the health and welfare of [humanity]". The purposes of NEPA are accomplished by evaluating the effects of federal actions. The results of these evaluations are presented to the public, federal agencies, and public officials in document format (e.g., environmental assessments and environmental impact statements) for consideration prior to taking official action or making official decisions. Implementing regulations for the NEPA are contained in Part 1500 to 1515 of Title 40 of the U.S. Code of Federal Regulations (40 CFR 1500-1515).

Clean Water Act of 1972, as amended (CWA) (33 USC 1251-1387). The purposes of the CWA are to "restore and maintain the chemical, physical and biological integrity of the Nation's waters". To enact this goal, the USACE has been charged with evaluating federal actions that result in potential degradation of waters of the U.S. and issuing permits for actions in accordance with the CWA. The U.S. Environmental Protection Agency also has responsibility for oversight and review of permits and actions that affect waters of the United States. Implementing regulations for the USACE's CWA program are contained in 33 CFR 320-330.

Endangered Species Act of 1973, as amended (ESA) (16 USC 1531-1544). The purposes of the ESA include providing "a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved". According to the ESA, "all Federal departments and agencies shall seek to conserve endangered species and threatened species" and "[e]ach Federal agency shall. . .insure that any action authorized, funded, or carried out by such agency. . .is not likely to jeopardize the continued existence of any endangered species or threatened species". The U.S. Fish and Wildlife Service (non-marine species) and the National Marine Fisheries Service (marine species, including anadromous fish and marine mammals) administer the ESA. The effects of any agency action that may affect endangered, threatened, or proposed species must be evaluated in consultation with either the USFWS or NMFS, as appropriate. Implementing regulations which describe procedures for interagency cooperation to determine the effects of actions on endangered, threatened, or proposed species are contained in 50 CFR 402.

National Historic Preservation Act of 1966, as amended (NHPA) (16 USC 470 *et sequentia*). Congressional policy set forth in the NHPA includes preserving "the historical and cultural foundations of the Nation" and preserving irreplaceable examples important to our national heritage to maintain "cultural, educational, aesthetic, inspirational, economic, and energy benefits". The NHPA also established the National Register of Historic Places composed of "districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture". Section 106 of the NHPA requires that federal agencies

take into account the effects of their actions on properties eligible for or included in the National Register of Historic Places and coordinate such actions with State Historic Preservation Offices (SHPO). NHPA also requires federal agencies, in consultation with the SHPO, to locate, inventory, and nominate all properties that appear to qualify for the National Register of Historic Places, including National Historic Landmarks. Further, it requires federal agencies to document those properties in the case of an adverse effect and propose alternatives to those actions, in accordance with the NEPA.

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LIST OF PREPARERS

PREPARER:

ROLE:

POSITION:

Chris Davis

Cuyahoga Valley National Park
Brecksville, OH

Report preparation and
coordination.

Plant Ecologist

[Some text borrowed from Sherry Middlemis-Brown, NPS, 2004; and Lynn Garrity, NPS, 2012]

REVIEWERS

Cuyahoga Valley NP, Brecksville, OH

XXX, Superintendent

Paul Stoehr, Deputy Superintendent

Lisa Petit, Chief of Resource Management

Chris Ryan, Chief of Visitor and Resource Protection

Indiana Dunes National Lakeshore, XXX, IN

Dan Morford, Fire Management Officer

Midwest Region, Omaha, NB

Nicholas Chevance, Regional Environmental Coordinator

An Interdisciplinary Team of NPS Regional Cultural Resource Specialists composed of the following members reviewed proposed actions within prescribed-fire units:

Ann Bauermeister, Archeologist

Ron Cockrell, Historian

Paulette Cossel, Historical Architect

Darlene Kelbach, former Historical Landscape Architect

Steven Rogers, Regional 106 Coordinator.

APPENDIX A: SHPO Concurrence Letter



November 9, 2012

Stan Austin, Superintendent
Cuyahoga Valley National Park
15610 Vaughan Road
Brecksville, Ohio 44141-3097

Attn: Paulette Cossel, Historical Architect

Dear Mr. Austin:

Re: Cuyahoga Valley National Park Fire Management Plan, Cuyahoga and Summit
Counties, Ohio

This is in response to your correspondence, received on September 5, 2012, regarding the planned ignitions at three locations in Cuyahoga Valley National Park, Summit and Cuyahoga Counties, Ohio. My comments are made pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, and the associated regulations at 36 CFR Part 800.

Based on the information submitted, I concur with the opinion that the proposed prescribed fire will not affect properties listed in or eligible for listing in the National Register of Historic Places. No further coordination with this office is necessary, unless the project changes or unless new or additional historic properties are discovered during implementation of this project. Should this happen, this office should be notified as required by 36 CFR 800.13. Additionally, any prescribed fires planned in Cuyahoga Valley National Park that were not included in the current submission should be submitted to this office for review and comment.

If you have any questions, please contact me at (614) 298-2000, or by email at nyoung@ohiohistory.org.

Sincerely,

Nathan J. Young, Project Reviews Manager
Resource Protection and Review

2012-CUY-21701

OHIO HISTORICAL SOCIETY
Ohio Historic Preservation Office
800 East 17th Avenue, Columbus, Ohio 43211 ph: 614.298.2000 fx: 614.298.2037
www.ohiohistory.org

APPENDIX B: USFWS Consultation Letter



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994

June 24, 2014

Mr. Craig Kenkel
Cuyahoga Valley National Park
15610 Vaughn Road
Brecksville, OH 44141

TAILS: 03E15000-2014-TA-1322
03E15000-2014-CPA-1058

Dear Mr. Kenkel:

This is in response to your May 30, 2014 email and enclosed Environmental Assessment (EA) For Fire Management Including Use of Prescribed Fire. The EA includes an evaluation of the potential effect of the proposed fire management program at Cuyahoga Valley National Park (CVNP) on federally listed species. The park is located between Cleveland and Akron along the Cuyahoga River.

The No-Action Alternative includes continued implementation of the 2004 Fire Management Plan (FMP). Under this the FMP wildland fires have been suppressed throughout the park and prescribed fire is limited to the Borrow Pit Site. The Preferred Alternative includes continued suppression of wildland fires. However, it expands prescribed fire to two additional sites: the former site of the Richfield Coliseum and the Terra Vista Natural Study Area.

BALD EAGLE COMMENTS:

The project lies within the range of the **bald eagle** (*Haliaeetus leucocephalus*), a species protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. A bald eagle nest is located in the northern section of the park. Tree clearing and trail use is limited within the vicinity of the existing nest. Relative to this species, this precludes the need for further action on this project as required by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.

ENDANGERED SPECIES COMMENTS:

The proposed project lies within the range of the **Indiana bat** (*Myotis sodalis*), a federally listed endangered species, and the **northern long-eared bat** (*Myotis septentrionalis*), a species that is currently proposed for listing as federally endangered.

You have indicated that under either alternative removal of hazardous trees would not occur within sites or at times that might support bats. Indiana bats have been documented during the summer season within the vicinity of all three sites proposed for use of prescribed fire. In addition, several swarming sites have been documented further to the east.

There are multiple records of northern long-eared bats using the Park throughout the summer. There are additional swarming records further to the east as well. Due to the **potential to impact these species during the summer we recommend that no hazardous tree removal should occur between April 1 and September 30.**

The Borrow Pit Site, former Richfield Coliseum, and the Terra Vista Natural Study Area are maintained in an early successional state to maintain historic characteristics and field habitat for pollinators. Under the Preferred alternative prescribed fire will occur at all three sites. Under the No-Action Alternative prescribed fire would be limited to the Borrow Pit Site. Due to regular mowing of these sites and the planned use of fire every few years, these sites do not contain forest habitat and therefore the use of prescribed fire at these sites will not remove suitable habitat for bats. However, smoke produced by a prescribed burn has the potential to impact adjacent forest habitat. You have indicated that prescribed fire would be conducted in early spring or late fall when bats are unlikely to be in the area. **We recommend that any prescribed fires occur after September 15 and prior to April 15 to avoid impacts to these bats species.** Potential swarming and hibernacula habitat are located further than 5 miles from the three proposed sites for prescribed fire so no impacts due to smoke are expected.

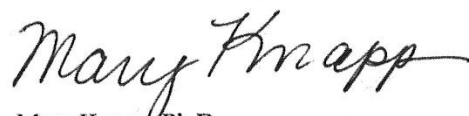
The proposed project lies within the range of the **Kirtland's warbler** (*Setophaga kirtlandii*), a federally listed endangered species. This species migrates through Ohio in the spring and fall, traveling between its breeding grounds in Michigan, Wisconsin, and Ontario and its wintering grounds in the Bahamas. While migration occurs in a broad front across the entire state, approximately half of all observations in Ohio have occurred within 3 miles of the shore of Lake Erie. Due to the project location and onsite habitat, this project is not expected to result in impacts to Kirtland's warbler.

The project lies within the range of the **pipin plover** (*Charadrius melodus*) and **northern monkshood** (*Aconitum noveboracense*). Due to the project type, location, and onsite habitat, these species would not be expected within the project area, and no impacts to these species are expected.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the Endangered Species Act of 1973, as amended, and are consistent with the intent of the National Environmental Policy Act of 1969 and the U.S. Fish and Wildlife Service's Mitigation Policy. Please note that consultation under section 7 of the ESA may be warranted for this project if suitable habitat for federally listed species may be impacted by this project. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

If you have any questions regarding our response or if you need additional information, please contact Jennifer Finfera at extension 13.

Sincerely,

A handwritten signature in cursive script that reads "Mary Knapp".

Mary Knapp, Ph.D.
Field Supervisor