

National Park Service
U.S. Department of Interior

Cuyahoga Valley National Park
Brecksville, Ohio



FINAL Trail Management Plan and Environmental Impact Statement

Cuyahoga Valley National Park

2012



Front Cover Photo: Tom Jones

About this Document

In 1969, the United States Congress passed the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.). As a result, when any agency of the Federal Government proposes a “major Federal action significantly affecting the quality of the human environment,” a detailed statement on the environmental impact of the proposed action must be prepared. NEPA requires that the process include; 1) consideration of a range of alternatives, 2) an evaluation of potential environmental consequences of an action before deciding to proceed and 3) provide opportunities for public involvement. NEPA requires the preparation of an Environmental Impact Statement (EIS) when a federal agency proposes an action that may have significant impacts on the human environment. The EIS process serves as a primary tool to help NPS decision-makers assess the types and levels of impacts expected from a proposed action to avoid impairment. An EIS is the highest level of compliance provided under NEPA. Because of the scope and park-wide nature of the Cuyahoga Valley National Park *Trail Management Plan*, the Park is required to conduct an EIS for the Plan.

The Final Environmental Impact Statement is organized in accordance with the National Environmental Policy Act and NPS Director’s Order #12. Below is an outline of the document.

Purpose and Need for Action and Goals and Objectives. This section sets forth the purpose, needs and goals and objectives of the Trail Plan. The section provides general information on Cuyahoga Valley National Park, background on the park’s trail system, an overview of the public scoping process and the issues identified for consideration of impacts from proposed actions.

Alternatives. This section describes the proposed actions common to all alternatives and those specific to each of the alternatives. It compares the alternatives by their general framework, impacts and goals of the Plan and criteria set forth by the National Environmental Policy Act.

Affected Environment. This section describes existing conditions of resources that may be affected by the proposed actions of the alternatives.

Environmental Consequences. This section describes the impacts on resources by the proposed actions of the alternatives.

Consultation and Coordination. This section provides an overview of the public participation process and project team.

Executive Summary

Cuyahoga Valley National Park

Final Comprehensive Trail Management Plan & Environmental Impact Statement

Introduction and Background

Cuyahoga Valley National Park encompasses 33,000 acres between the metropolitan areas of Cleveland and Akron, Ohio. Cuyahoga Valley National Park provides visitors the opportunity to experience the cultural, scenic, natural and recreational resources of the Cuyahoga River Valley and a portion of the Ohio & Erie Canal Corridor.

Recreational use is central to Cuyahoga Valley National Park's legislative mandate as stated, "To preserve and protect for public use and enjoyment, the historic, scenic, natural and recreational values of the Cuyahoga River and the adjacent lands of the Cuyahoga Valley and for the purpose of providing for the maintenance of needed recreational open space necessary to the urban environment" (Public Law 93-555, 1974).

The Cuyahoga River Valley has a strong history as a centerpiece for outdoor recreation opportunities. At the same time, the Valley continues to be restored with thriving ecosystems while retaining the cultural heritage and landscapes of the Ohio & Erie Canal Corridor. These successes are particularly significant, given the Park's location within a large metropolitan area boasting a human population of over 3 million people within 25 miles. New challenges arise for the Park in meeting all of the goals of its legislative mission as visitation continues at a high level, recreation trends and the way people spend their leisure time change, and its landscape continues to be restored.

In 2009, the NPS embarked on a planning process to develop a *Trail Management Plan and Environmental Impact Statement* for Cuyahoga Valley National Park in accordance with the requirements of the National Environmental Policy Act to meet these emerging challenges for the Park.

Purpose of and Need for the Plan

The purpose of the updated *Trail Management Plan and Environmental Impact Statement* is to develop a blueprint that will guide the expansion, restoration, management, operations and use of the trail system and its associated amenities, over the next 15 years, in keeping with the purpose, mission and significance of Cuyahoga Valley National Park. Since 1985, when the Park's first Trail Plan was established, many changes have occurred that require an update to the Plan. These include the Park's growth in visitation and programs, some park trails requiring increased operational investment due to their location and use patterns, expansion of regional trail networks, and change in outdoor recreation trends.

The Park set forth goals and objectives to guide the development of the Trail Plan and consideration of proposed actions. The goals of the Trail Plan include that the trail network provides for a variety of trail users, shares the features significant to the Park, minimizes impacts to park resources, can be sustained for future generations, and engages cooperative partnerships.

Public Participation

The Trail Plan has been following the required NEPA and NPS planning process for the past three years. The Trail Plan process began with the Notice of Intent published in Fall, 2009. Public involvement was a large component of the development of the trail elements established under the alternatives. Through public scoping, ideas were generated for the trail system and issues were identified to be considered in the planning process. Public scoping, largely conducted in 2010, included a survey of trail stakeholder groups, workshops to collect ideas for the Trail Plan and public meetings to present and receive input on conceptual alternatives. The Park received approximately 500 comments at the scoping workshops from approximately 150 persons. Additional comments were received from approximately 100 persons during an open comment period on a set of preliminary alternatives.

The Park received 159 comments during the Final Trail Plan public review and comment process that occurred between June 22 and August 20, 2012.

Issues and Impact Topics

Through the public scoping process and initial data collection on existing conditions, five primary issues were identified for the Plan: park resources, visitor use, facility uses, maintenance and administrative operations. Impact topics were identified that may be impacted or have an impact on the proposed actions. Other resource topics were dismissed from further analysis because the alternatives would have negligible or no impacts to these resources. Impact topics retained and analyzed include:

- Water Resources (Water Quality, Wetlands, Floodplains, and Riparian areas)
- Vegetation and Invasive Plant Species (Trampling, Fragmentation, Proliferation of Exotic Species)
- Wildlife (Disturbance, Fragmentation)
- Soils (Soil Suitability, Slope Gradient)
- Cultural Resources (Archeological, Historical Districts, Cultural Landscapes and Scenic Values)
- Visitor Use and Experience (Visitor accessibility, visitor experience, visitor conflict, public health and safety, orientation and interpretation)
- Socioeconomic (Local Jurisdictions, Land Ownership, Transportation Network, Soundscapes/Noise, Business)
- Park Operations (Staffing, Partnerships, Local Jurisdictions)

Summary of Alternatives Considered

The alternatives reflect information and input from a variety of sources during the planning process. This Environmental Impact Statement evaluates eight alternatives that provide a park-wide vision of the trail network for the next fifteen years. A brief summary of each alternative is presented below with more information provided for Alternative 5, the preferred alternative. Elements that are common to all alternatives or all action alternatives are presented first.

Elements Common to All Alternatives

There are actions and policies that will apply or occur under any alternative selected. The actions common to all the alternatives include:

- *Polices, Protocols, Monitoring and Special Designations.* All alternatives will adhere to the policies, protocols and monitoring set forth by the National Park Service, including special designations that are applicable to Cuyahoga Valley National Park.
- *Trail Projects Underway.* The Park is currently managing trail-related projects that are in various stages of planning and development. These projects have completed or will undergo environmental review and will not be evaluated in this Environmental Impact Statement. They will be considered as common elements of all alternatives of the Trail Management Plan.
- *Park Sustainability Practices.* Cuyahoga Valley National Park's current sustainability practices for providing recycling, energy efficient lighting, energy efficient and pollution reduction operations practices will be continued and expanded where feasible under all alternatives. Identifying emerging practices and technologies to reduce energy demands of the park and enhance alternative energy generation are practices to explore for all alternatives.
- *Visitor Use Carrying Capacity.* User capacity guidance for the social and ecological changes on trails will be established to ensure the integrity of park resources is maintained. Development of user capacity standards will be part of the implementation phase of the Trail Plan.
- *Accessibility and Mobility.* Recommendations are outlined in the Plan, to address accessibility and power driven mobility devices and compliance with applicable laws, rules and guidelines.
- *Trail Signage.* The Park will continue to update its Sign Plan and utilize the UniGuide Sign Standard for the Trail Plan's selected alternative. The Park will evaluate the use of emerging technologies for trail orientation and information for visitor use.
- *Partnerships.* Partnerships between the public park agencies, local communities and the three primary Park Partners will continue as part of all Alternatives.
- *Implementation.* An implementation strategy will be important to accomplish the vision set forth in the Plan. NPS will conduct activities to implement the Trail Plan effectively. These include subsequent planning, prioritizing Trail Plan elements in the selected alternative for implementation, an Implementation Strategy Plan, and establishment of a progress report for Trail Plan completion.

Elements Common to All Action Alternatives

There are actions and policies that are being considered as part of each of the seven action alternatives (Alternatives 2A - 5). The actions common to all action alternatives include:

Sustainable Trail Guidelines. The NPS will establish Sustainable Trail Guidelines to guide the Park's planning and management of the trails related to the restoration of existing trails, planning and design for new trails and trail facilities, and maintenance and best management practices. The Action Alternatives and their trail elements are predicated on applying these Guidelines. The Guidelines will serve as the Standard Operating Procedure for trail management in the Park during implementation of the selected alternative of the Trail Plan. The Guidelines focus on the following topics:

- *Site Planning and Design of Trail.* The Guidelines outline the basic principles and practices to administer during the site assessment and design phases of trail development in the Park. Guidance includes the trail development process for trails in CVNP, identification of trail classes and types and their design and management criteria, site assessment and site design best practices, and program guidance for the development of trail facilities, signage and accessibility and mobility that is suitable to each trail's individual site conditions.
- *Trail Construction.* The Guidelines establish basic principles and best practices to administer during the physical construction and maintenance of a trail.
- *Management, Maintenance and Monitoring.* The Guidelines provide management policies that will sustain CVNP trails for future generations. Guidance is provided on annual and long term maintenance, trail closures, management of trails for Special Use Permit events, and trail monitoring.

Restoration of Existing Trail Network. A primary objective, common to all action alternatives, is the restoration of the existing trail network. Restoration may include rehabilitating trails in their present location, relocating or realigning trails, or removal and closure of trails. This will be accomplished through condition assessments, prioritization of restoration based upon trail use and resource quality, and monitoring.

Trail Facilities. The Trail Management Plan scoping process identified various uses and facilities that will complement and support the trail network and trail visitors. The facilities include water trails where paddle launch sites for non-motorized boat access to the Cuyahoga River and associated facilities would occur, trailside and riverside campsites, parking at trailheads, and trail amenities such as benches and drinking water. The facilities are considered and evaluated as part of all the action alternatives.

- *Water Trail Facilities.* The Plan sets forth criteria for paddle launch sites along the Cuyahoga River within the Park boundary. Nine sites are evaluated in the planning process.
- *Campsites.* The Plan sets forth criteria for trailside campsites and expansion of this use in the Park. Campsites under consideration within the Trail Plan are associated with non-motorized access through the Park's trail system. Dispersed and designated campsites were evaluated along primary trail corridors and primitive trails that travel across the entire length of the Park. Twelve campsites are evaluated in the planning process.

- **Parking.** Parking areas associated with trail access are considered and evaluated under four areas of implementation; expansion of an existing parking area, improvement or relocation of an existing parking area, expansion of an existing parking area for a new vehicle type, specifically horse-trailers, and the introduction of new parking areas associated with proposed trail elements. Parking considerations in the Plan, common to all action alternatives include expansion of six existing parking areas, relocation of two existing parking areas, expanded use for horse trailers at two existing parking areas, and two new parking areas including one for horse-trailers. Additional parking areas are considered as they are applicable to specific trail elements within each alternative.

The Alternatives

The National Park Service has developed eight alternatives for use, stewardship and management of the Trail system within Cuyahoga Valley National Park. The No-Action Alternative would continue current conditions. Alternatives 2, 3 and 4 focus on a specific aspect of the park's significance to develop the future Trail system. Alternatives 2A and 2B would focus on the protection of park resources and improvements to Towpath Trail circulation. Alternatives 3A and 3B would focus on expanding recreational opportunities and significant trail entry points and Alternatives 4A and 4B would focus on providing destination routes to park features and the primitive trail experience. Off-road bicycle use utilizing single-track design is the only new use identified that is not currently permitted in the park. As such, each alternative is evaluated with and without this new use. Trails identified as off-road bicycling will be shared with hikers and in some limited areas, cross-country skiers. The alternatives are paired into a version "A" that has no off-road bicycling and "B" that includes off-road bicycling. For all other elements other than off-road bicycle use and (in some cases) new off-road bicycle trails, paired "A" and "B" alternatives (e.g., 2A and 2B) are exactly the same. Alternative 5 combines the ideas from all of the other alternatives considered. Alternative 5 is the Preferred Alternative of the National Park Service to meet the Plan's purpose and need, and also the goals set forth in NEPA.

Alternative 1: No Action Alternative. Under Alternative 1, the trails, authorized uses and facilities addressed in this plan would remain as they currently exist. The Park would continue to implement the 1985 Trail Plan. The Park would continue trail management under current park policies, protocols and monitoring. A continuation of trail projects would occur on an individual basis and as opportunities arise with separate planning and compliance.

Alternative 2A: ReUse. In Alternative 2A, the Cuyahoga Valley Trail system would be developed and redeveloped with the concept of ReUse being its foundation. Alternative 2A emphasizes the importance of enhancing the existing trail system's sustainability for future generations with limited expansion. Alternative 2A adds a total of 17 miles of new trails to the park's trail system and removes 11 miles of existing trails. It includes one additional expansion of an existing parking area from the trail facilities common to all action alternatives.

Alternative 2B: ReUse with Off-Road Single Track Bicycle Use. Alternative 2B is the same as Alternative 2A with the addition of authorization of a linear bicycle trail on existing single track trails within the Park and Park Partner lands. The addition and removal of trail miles and facilities are the same as described in Alternative 2A with the addition of a change in use designation on 10 miles of existing trail for off-road bicycle use.

Alternative 3A: Recreation Focus. Alternative 3A is focused on the concept of utilizing areas as interchangeable recreational “trail hubs” that provide the full variety of trail experiences the Park has to offer. Trail hubs would be placed in a variety of locations throughout the park to establish activity centers for trail use and other activities. Alternative 3A would add a total of 30 miles of new trails and would remove 11 miles of existing trails. This alternative also includes almost 40 miles of roadways in the Park recommended for improvements for on-road bike use. Alternative 3A also includes two additional campsites, one additional new parking area and trailhead, and one additional expansion of an existing parking area.

Alternative 3B: Recreation Focus with Off-Road Single Track Bicycle Use. Alternative 3B is the same as Alternative 3A with the addition of new off-road single track bicycle trails consisting of two zones of loop routes. The proposed off-road bicycle trails would include two new trails on both sides of the Valley in the central region of the park totaling 17.7 miles. The proposed trails would include a linear longer distance segment and shorter loops on each end of the segments. One additional new parking area is proposed to accommodate the new off-road bicycle trail proposed in the west rim of the Park.

Alternative 4A: Destination Focus. Alternative 4A is focused on the destination rather than the journey of the Park’s trail network. Park features and attractions are the focus of this alternative with the trail system serving as the main visitor access to these features. Expansion of the primitive hiking experience occurs to the greatest extent in Alternative 4A. Alternative 4A would add a total of 53 miles of new trails and removes 11 miles of existing trails. Alternative 4 adds one additional campsite and expansion of an existing parking area.

Alternative 4B: Destination Focus with Off-Road Single Track Bicycle Trails. Alternative 4B is the same as Alternative 4B with the addition of new off-road single track bicycle trails. The bike trail system consists of a long point-to-point trail with shorter loop trails to provide a variety of lengths and experiences to the off-road bike user. The East Rim Bike Trail would add nearly 21 miles of trail for off-road bicycle use on new proposed trails.

Alternative 5: ReUse, Recreation & Destination (Preferred Alternative). Alternative 5 combines trail elements from all of the Alternatives and proposed trail facilities that will best fit the park. The “hybrid” approach for Alternative 5, will include all elements common to all action alternatives, an increase of 37 miles of trails from existing conditions if fully implemented, including a new 10-mile off- road single track bicycle trail, trail facilities including expanded and new parking areas, introduction of launch sites for water trail access, and expansion of hike-in and paddle-in campsites.

Environmentally Preferable Alternative. The environmentally preferable alternative is the alternative required by 40 CFR 1505.2(b) to be identified that causes the least damage to the biological and physical environment and best protects, preserves and enhances historical, cultural and natural resources. Alternative 2A has been selected as the environmentally preferable alternative because it is the alternative that best protects the biological and physical environment within the park while meeting the purpose and need of the Plan. This is accomplished through the adoption of the Sustainable Trail Guidelines, restoration and removal of trails in sensitive areas, the limited expansion of trails, use of existing disturbed areas for trails, and connections to regional trail networks to serve a variety of users throughout all regions of the Park.

NPS Preferred Alternative. As a result of the impact analysis results summarized in Table 1, the Park assembled a ‘hybrid’ of trail elements that best meets the goals of the Plan and CEQ’s criteria. The preferred ‘hybrid’ approach used Alternative 3B as its baseline concept. Alternative 5 was created by removing elements that were found to cause higher levels of impacts and combining of trail elements from all of the alternatives. Alternative 5 will best meet the mission of the Park, its resource conditions and visitor use, the Trail Plan purpose and goals, while fulfilling the criteria of NEPA.

Environmental Consequences

For the purpose of the Environmental Impact Statement (EIS), an issue or impact topic describes an environmental problem or relationship between a resource and an action or actions. Impact analysis predicts the degree to which the resource will be affected. The effects to be considered include direct, indirect and cumulative. Direct effects are caused by actions at the same time and place of the action. Indirect effects are actions and impacts caused by the alternatives that occur later in time or farther in distance than the action. The intensity of effects is identified as negligible, minor, moderate or major. The intensity of effects is determined for each issue and potential impacts by the proposed actions. Cumulative impacts are impacts to a particular resource and include impacts of actions in the past, present and the reasonable foreseeable future. These effects are both beneficial and adverse and will vary depending on the affected resource and the proposed action. Beneficial impacts are those that involve a positive change that moves the resource toward a desired condition. Adverse impacts involve a change that moves the resource away from a desired condition or detracts from its appearance and condition. A summary is provided in Table 1 that shows the type of impacts expected with each alternative.

Cumulative impacts are common to all alternatives, typically, long-term, minor and adverse or negligible and do not significantly change among alternatives the intensity of the adverse impact of the issue topics.

Impacts from trail facilities are also presented as common to all to action alternatives. While some individual facilities within these common facilities and additional facilities described within individual alternatives have specific site impacts, the intensity of the impacts do not change significantly among alternatives. The highest level of impact to park resources from trail facilities, are typically long-term, minor and adverse.

Table 1: Comparative Summary of Impacts

Impact Topic	General Analysis Results
Water Resources Imperviousness Riparian Buffers Stream Crossings Wetlands Floodplains Water Quality	<p>Watershed imperviousness would not be impacted at greater than negligible levels by any alternatives parkwide or at subwatershed scales. Given that riparian areas, wetland buffer areas and streams are present throughout the park, these resources are largely impacted as trail miles increase. Some isolated trail elements that would require boardwalk systems may impact wetlands. Impacts to floodplains are largely limited to site specific trail elements, primarily interpretive trails systems adjacent to or providing access to the river that may require boardwalk systems. Impacts to water quality are related to the increase of trail miles in select (3) cold water or high quality watersheds and additional human activity associated with the river and campsites.</p> <p><i>Impacts to Water Resources among alternatives range from negligible adverse to minor to moderate adverse.</i></p> <p><u>Alternative 1</u>: Long-term minor to moderate, adverse from current trails in close proximity to sensitive water resources and current alignment of trails in some locations where erosion occurs resulting in temporary increased sedimentation.</p> <p><u>Alternative 2A</u>: Long-term, negligible to minor, adverse from limited new trail development.</p> <p><u>Alternative 2B</u>: Long-term, negligible to moderate, adverse, from limited new trail development but increase of new use on existing natural surface trail in sensitive water resource area of the Park.</p> <p><u>Alternative 3A</u>: Long-term, minor to moderate, adverse from moderate levels of trail development, stream crossings in sensitive watersheds and limited new trails within buffer areas of wetlands and floodplains.</p> <p><u>Alternative 3B</u>: Long-term, minor to moderate, adverse from moderate levels of trail development, stream crossings in sensitive watersheds and limited new trails within buffer areas of wetlands and floodplains.</p> <p><u>Alternative 4A</u>: Long-term, minor to moderate, adverse from moderate levels of trail development, stream crossings in sensitive watersheds and limited new trails within buffer areas of wetlands and floodplains.</p> <p><u>Alternative 4B</u>: Long-term, minor to moderate, adverse from moderate levels of trail development, stream crossings in sensitive watersheds and limited new trails within buffer areas of wetlands and floodplains.</p> <p><u>Alternative 5 (Preferred Alternative)</u>: Long-term, minor to moderate, adverse from moderate levels of trail development, stream crossings in sensitive watersheds and limited new trails within buffer areas of wetlands and floodplains.</p> <p><u>Cumulative Impacts</u>: Long-term negligible to moderate and adverse from suburban development activities outside of the Park where water resources may be modified or lost. Long-term beneficial impacts if restorative actions related to the Brecksville Dam and combined sewer overflows occur.</p> <p><u>Trail Facilities</u>: Long-term, negligible adverse from minimal change in footprint within riparian zone and no required stream crossings. Long-term, negligible to minor adverse impacts from the proximity of three launch sites, three campsites and four parking areas.</p>

Impact Topic	General Analysis Results
	<p>Long-term negligible to minor adverse from presence of some facilities within floodplains. Long-term minor to moderate adverse impacts from increased human activity on the river, campsites, and runoff from additional parking surface areas.</p>
<p>Vegetation Habitat Fragmentation Invasive Plants</p>	<p>Impacts to vegetation involve the increased disturbance to vegetation from trail corridors ranging from 0.18 to 2.5 acres for bottomland forests, 2.6 to 6.5 acres in open areas, and 4 to 35 acres of upland forests. New trails and increased use in primitive areas will provide new entryways for invasive plant introduction.</p> <p><i>Impacts to Vegetation range from negligible to minor adverse to minor to moderate adverse.</i></p> <p><u>Alternative 1:</u> Long-term, moderate and adverse from disturbance of existing trails within primary vegetation communities, presence of exotic plants along main trail corridors and trails in areas of rare and special plant species.</p> <p><u>Alternative 2A:</u> Long-term, negligible to minor and adverse from an overall reduction of trails in primary vegetation communities and minimal development to limit spread of invasive plants.</p> <p><u>Alternative 2B:</u> Long-term, minor and adverse from an overall reduction of trails in primary vegetation communities, increase of trail use by bicycles in one isolated upland forest areas, and minimal development to limit spread of invasive plants.</p> <p><u>Alternative 3A:</u> Long-term, minor to moderate and adverse from an increase of trail miles within primary vegetation communities and new trail areas where spread of invasive plants may occur.</p> <p><u>Alternative 3B:</u> Long-term, moderate and adverse from a greater increase of trail miles within primary vegetation communities, including new off-road bicycle trails in undisturbed areas of the park and new trail areas where spread of invasive plants may occur.</p> <p><u>Alternative 4A:</u> Long-term, moderate and adverse. Long term, moderate and adverse from a greater increase of trail miles within primary vegetation communities and new trail areas where spread of invasive plants may occur.</p> <p><u>Alternative 4B:</u> Long term, moderate and adverse from a greater increase of trail miles within primary vegetation communities, including new off-road bicycle trails in undisturbed areas and new trail areas where spread of invasive plants may occur.</p> <p><u>Alternative 5:</u> (Preferred Alternative): Long-term minor to moderate and adverse from an increase of trail miles within primary vegetation communities and new trail areas where spread of invasive plants may occur.</p> <p><u>Cumulative Impacts:</u> Long-term, negligible and adverse effects from continuing development projects within and near the Park boundary that may cause vegetation disturbance but the increase of future exotic management activities and habitat restoration on disturbed sites within the Park.</p> <p><u>Trail Facilities:</u> Long-term, negligible to minor adverse impacts on the primary vegetation communities from minor ground disturbance in isolated regions of the park.</p>

Impact Topic	General Analysis Results
Wildlife Habitat disturbance by human noise Habitat fragmentation	Fragmentation of wildlife movement, increased disturbance from human activity and increased corridors for potential movement of species, including predators may occur as trail miles and “footprint” increase within the various wildlife habitats, most notably in forests, the predominant habitat in the Park. Three trails are within close proximity to known nesting areas.
	<p><i>Impacts to Wildlife among alternatives range from negligible and minor adverse to moderate, adverse.</i></p> <p><u>Alternative 1:</u> Long-term, minor and adverse due primarily to the overall continued fragmentation of forest habitats in the Park.</p> <p><u>Alternative 2A:</u> Long-term, minor, adverse from limited habitat fragmentation of minimal trail expansion.</p> <p><u>Alternative 2B:</u> Long-term, minor, adverse from limited habitat fragmentation of minimal trail expansion.</p> <p><u>Alternative 3A:</u> Long-term, minor to moderate, adverse from increased habitat fragmentation of trail expansion.</p> <p><u>Alternative 3B:</u> Long-term, minor to moderate, adverse from increased habitat fragmentation of trail expansion including mountain trails in undisturbed areas.</p> <p><u>Alternative 4A:</u> Long-term, moderate, adverse from significant habitat fragmentation of trail expansion.</p> <p><u>Alternative 4B:</u> Long-term, moderate, adverse from significant habitat fragmentation of trail expansion, including new off-road bicycle trails.</p> <p><u>Alternative 5</u> (Preferred Alternative): Long-term, minor to moderate, adverse from increased habitat fragmentation, including new off-road bicycle trails in a limited area.</p> <p><u>Cumulative Impacts:</u> Short-term and long-term minor and adverse from emerging development, increased loss of habitat, temporary disturbance from construction projects and potential changes associated with climate change. Future wildlife management plans currently in development will affect local wildlife populations beneficially.</p> <p><u>Trail Facilities:</u> Long-term negligible to minor and adverse from the position of trail facilities on the edge of forest blocks, minimal footprint and minimal localized disturbance from new or expanded uses.</p>

Impact Topic	General Analysis Results
Soils Recreation Use Compatibility Slope of Trail	Impacts are associated with the increase of trail miles within areas that have limitations for recreational trails that would require stabilization infrastructure to be sustainable. Additional impacts are associated with the number of trail miles where steep terrain is present that will create conditions that may lead to increased erosion.
	<p><i>Impacts to soils range from negligible to moderate and major adverse largely from increase in trail miles within the system.</i></p> <p><u>Alternative 1:</u> Long-term, minor to moderate, adverse from trails located in limited soil conditions and in areas with trail grades that exceed 15%.</p> <p><u>Alternative 2A:</u> Long-term, negligible, adverse, from a limited increase of trails and no additional trails on steep grades.</p> <p><u>Alternative 2B:</u> Long-term, negligible to minor, adverse from a limited increase of trails, new use increasing trail use on a natural surface trail, and no additional trails on steep grades.</p> <p><u>Alternative 3A:</u> Long-term, minor, adverse from a moderate increase of trail miles and minor increase of trails on steep grades.</p> <p><u>Alternative 3B:</u> Long-term, minor to moderate, adverse from a moderate increase of trail miles, increase of trail use types and minor increase of trails on steep grades.</p> <p><u>Alternative 4A:</u> Long-term, moderate, adverse, from a moderate increase of trail miles and moderate increase of trails on steep grades.</p> <p><u>Alternative 4B:</u> Long-term, moderate, adverse from a moderate increase of trail miles, increase of trail use types and moderate increase of trails on steep grades</p> <p><u>Alternative 5:</u> (Preferred Alternative) Long-term minor to moderate, adverse from a moderate increase of trails miles, new trail use types and minor increase of trails on steep grades.</p> <p><u>Cumulative Impacts:</u> Short-term and long-term minor to moderate adverse impacts to soil conditions during construction projects inside and outside of the Park and continued soil compaction and soil loss from ongoing urbanization.</p> <p><u>Trail Facilities:</u> Short-term and long-term negligible to minor adverse effects on soil resources are expected from temporary disturbance during construction and minimal areas of disturbance from access and use of launch sites, campsites, and new and expanded parking areas.</p>
Cultural Resources Archeological National Register of Historic Places Rural Landscapes & Scenic Values	Overall Cultural Resources are not affected by the proposed trail elements or have negligible to minor effects. Two areas where adverse impacts are identified are the removal of a portion of Lake Trail and the proposed off-road bicycle trail segment adjacent to the Duffy Farm. The general scale of the plan will require site evaluation on selected alternative elements for archeological resources.
	<p><i>Impacts to Cultural Resources range from negligible to minor adverse and minor to moderate adverse from resource impacts within limited areas of the park.</i></p>

Impact Topic	General Analysis Results
	<p><u>Alternative 1:</u> Long-term, negligible to minor, adverse from increased ground disturbance in high use areas and use on unmanaged social trails.</p> <p><u>Alternative 2A:</u> Long-term, negligible to minor, adverse from limited expansion of trails near Cultural Resources.</p> <p><u>Alternative 2B:</u> Long-term, negligible to minor, adverse from limited expansion of trails near Cultural Resources.</p> <p><u>Alternative 3A:</u> Long-term, negligible to moderate, adverse from a moderate expansion of trails near Cultural Resources.</p> <p><u>Alternative 3B:</u> Long-term, negligible to moderate, adverse from a moderate expansion of trails near Cultural Resources.</p> <p><u>Alternative 4A:</u> Long-term, negligible to minor, adverse from a minor expansion of trails near Cultural resources.</p> <p><u>Alternative 4B:</u> Long-term, negligible to moderate, adverse from a moderate expansion of trails near Cultural Resources.</p> <p><u>Alternative 5:</u> (Preferred Alternative) Long-term negligible to moderate, adverse from a moderate expansion of trails near Cultural Resources.</p> <p><u>Cumulative Impacts:</u> Continued use of neighborhood social trails will continue under this alternative, resulting in long-term, negligible to minor and adverse impacts on cultural resources. Impacts resulting from the Boston Mills Area Development Plan/Environmental Assessment may occur.</p> <p><u>Trail Facilities:</u> Long-term, negligible to minor adverse impacts on NRHP properties, Countryside Initiative program elements and archeological resources. Impacts to archeological resources will need to be evaluated through site-specific surveys to ensure mitigation of impacts.</p>
Visitor Experience Visitation Trail User Experience Trail User Conflict Education/ Interpretation Public Health/ Safety	<p>Impacts on visitor experience are largely beneficial to the visitor providing new and a wider variety of trail experiences in the park. Increased trail user conflicts may occur from an increase in shared trail use, new trail uses and the proximity of select new trails to existing high use areas. New trail facilities with limited access or associated resource issues, may affect the public health and safety of trail users.</p> <p><i>Impacts to visitor experience include beneficial impacts for new and expanded trail use experiences and opportunities for interpretation and education, and negligible to minor adverse impacts in some instances on trail use and experience, trail user conflict, and public health and safety.</i></p> <p><u>Alternative 1:</u> Long-term, minor to moderate, adverse from trail user conflicts in high use areas and limited connections to regional trail networks.</p> <p><u>Alternative 2A:</u> Long-term, beneficial from limited new trails and regional trail connections and long-term, minor to moderate adverse from minimum changes in visitor experiences.</p> <p><u>Alternative 2B:</u> Long-term, beneficial from limited new trails and regional trail connections and long-term, minor to moderate adverse from minimum changes in visitor experiences.</p> <p><u>Alternative 3A:</u> Long-term, beneficial from moderate increase of new trails and regional trail connections and long term, minor to moderate adverse from potential increase in trail visitation.</p>

Impact Topic	General Analysis Results
	<p><u>Alternative 3B</u>: Long-term, beneficial from moderate increase of new trails, regional trail connections and new uses and long term, minor to moderate adverse from a potential increase in trail visitation and trail user conflicts with new trail uses.</p> <p><u>Alternative 4A</u>: Long-term, beneficial from moderate increase of new trails and regional trail connections and long term, minor to moderate adverse from a potential increase in trail visitation.</p> <p><u>Alternative 4B</u>: Long-term, beneficial from moderate increase of new trails and regional trail connections and long term, minor to moderate adverse from a potential increase in trail visitation.</p> <p><u>Alternative 5</u>: (Preferred Alternative) Long-term, beneficial from a moderate increase of new trails and regional trail connections and long-term, minor to moderate adverse from potential increase in trail visitation.</p> <p><u>Cumulative Impacts</u>: Long-term beneficial impacts from regional trail and trail facility expansion and improvements on the Cuyahoga River that improve water resource conditions for recreational use.</p> <p><u>Trail Facilities</u>: Trail facilities and amenities will provide long-term beneficial impacts to visitor use experience by improving facilities for visitation, new and expanded trail user experiences and new opportunities for education and interpretation. Long-term minor to moderate impacts to visitor use and experience from potential trail user conflict in high use areas from new uses, and public safety and health issues associated with river conditions and human waste management at campsites.</p>
Socioeconomic Land Ownership and Proximity to Other Adjacent Lands Public Roads Increased Visitation Commercial Business Construction Activities	<p>The expansion of trails will result in some areas of adjacent lands within close proximity to projected low use primitive trails and medium to high seasonal use of new multi-use connector trails and some alternatives (3B, limited 4B) of off-road bicycle trails. Increased trail crossings on public roads and utilization of selected roads for bike lanes will likely require additional information regarding multiple uses in proximity to public roads. New uses offer potential beneficial impacts to business opportunities.</p> <p><i>Impacts to Socioeconomic conditions range from beneficial for increased and new business opportunities, new and expanded facilities to accommodate visitation, and new construction activities, to minor to moderate adverse from varying increases of select trails on other jurisdictional lands, select trails near adjacent lands and varying increases of non-motorized use on public roads.</i></p> <p><u>Alternative 1</u>: No effect and long-term, minor to moderate, adverse from no changes to socioeconomic conditions.</p> <p><u>Alternative 2A</u>: Long-term, beneficial impacts from limited opportunities to expand trail-based business opportunities and long term, minor and adverse from limited expanded trail system and its proximity to adjacent landowners, crossing of public roads.</p> <p><u>Alternative 2B</u>: Long-term, beneficial for business opportunities and long-term, minor to moderate, adverse from limited expanded trail systems, use of other jurisdictional lands, proximity of new trails to adjacent landowners, and crossing of public roads.</p> <p><u>Alternative 3A</u>: Long-term, beneficial for business opportunities and long-term, minor to moderate, adverse from expanded trail systems, use of other jurisdictional lands, proximity</p>

Impact Topic	General Analysis Results
	<p>of new trails to adjacent landowners, and crossing of public roads.</p> <p><u>Alternative 3B</u>: Long-term, beneficial for business opportunities and long-term, minor to moderate, adverse from expanded trail systems, use of other jurisdictional lands, proximity of new trails to adjacent landowners, and crossing of public roads.</p> <p><u>Alternative 4A</u>: Long-term, beneficial for business opportunities and long-term, moderate, adverse from expanded trail systems, use of other jurisdictional lands, proximity of new trails to adjacent landowners, and crossing of public roads.</p> <p><u>Alternative 4B</u>: Long-term, beneficial for business opportunities and long-term, moderate, adverse from expanded trail systems, use of other jurisdictional lands, proximity of new trails to adjacent landowners, and crossing of public roads.</p> <p><u>Alternative 5</u>: (Preferred Alternative) Long-term, beneficial for business opportunities and long-term, minor to moderate, adverse from expanded trail systems, use of other jurisdictional lands, proximity of new trails to adjacent landowners, and crossing of public roads.</p> <p><u>Cumulative Impacts</u>: Long-term beneficial impacts from potential increased business opportunities spurred by regional trail development. Long-term, minor and adverse impacts on local governments for additional services potential required on future regional and local greenways and trails.</p> <p><u>Trail Facilities</u>: Trail facilities will have long-term negligible and adverse impacts on costs to visitors for marginal costs for water trail use permits, long-term minor and adverse impacts from noise associated with some facilities and their proximity to non-NPS lands, long-term negligible and adverse impacts from increase uses and additional entry points from public roads for expanded trail facility uses from public roads, and short-term and long-term beneficial impacts on business for new opportunities for business and construction activities associated with expanded trail facilities and uses.</p>
Park Operations Staffing Facilities Partner Operations Other Jurisdiction Operations	<p>Park Operations increase as number of trail miles increase. Designated river access and associated increase in river use and expansion of campsites will require additional operations. Capacity to support the development and stewardship of trails will increase as trail miles increase.</p> <p><i>Impacts to park operations range from no change, less than a 5 percent increase, a 5-8 percent increase and greater than a 10 percent increase in staffing from current operations and identified as negligible up to major on the need for increased park operation, partner operations and other jurisdiction operations required to build, sustain and operate, proposed actions.</i></p> <p><u>Alternative 1</u>: No effect and long-term, negligible to minor, adverse impacts from limited staff to meet current operations of trail management, no new facilities and ongoing support from park partners and local jurisdictions.</p> <p><u>Alternative 2A</u>: Long-term, negligible to minor, adverse impacts from a minor increase of additional staff and partnership support from current operating levels.</p> <p><u>Alternative 2B</u>: Long-term, negligible to moderate, adverse from minor additional staff and partnership support from current operating levels.</p> <p><u>Alternative 3A</u>: Long-term, minor to moderate, adverse impacts from a moderate increase of additional staff and partnership support from current operating levels.</p>

Impact Topic	General Analysis Results
	<p><u>Alternative 3B:</u> Long-term, minor to moderate, adverse impacts from a moderate increase of additional staff and partnership support from current operating levels.</p> <p><u>Alternative 4A:</u> Long-term, moderate to major, adverse impacts from a major increase of additional staff and partnership support from current operating levels.</p> <p><u>Alternative 4B:</u> Long-term, moderate to major, adverse impacts from a major increase of additional staff and partnership support from current operating levels.</p> <p><u>Alternative 5:</u> (Preferred Alternative) Long-term minor to moderate, adverse impacts from a moderate increase of additional staff and partnership support from current operating levels.</p> <p><u>Cumulative Impacts:</u> Expanding residential and commercial development or redevelopment surrounding the Park may increase visitation and undesignated entry points into the Park, resulting in minor adverse, long-term impacts to park operations and management. Long-term minor adverse impacts from increased river use from expansion of river use access facilities outside of park, and potential water quality improvements from Route 82 dam and reduction of combined sewer overflows.</p> <p><u>Trail Facilities:</u> Short-term and long-term, minor to moderate adverse, from its increase for staffing and operations required for new facilities and long-term negligible to minor adverse from, increased design and contract service coordination, increased construction and ongoing maintenance for trail facilities, increased coordination with local jurisdictions on new facilities, particularly river use.</p>

Next Steps

The Final Trail Management Plan and Environmental Impact Statement was on public review from June 22, 2012 to August 20, 2012. The NPS project team evaluated comments received during the public review period, and appropriate changes were included in the Final Trail Management Plan and Environmental Impact Statement. Appendix D of this document includes letters from government agencies, comments from individuals and organizations with responses to substantive comments. Following the distribution of the final plan and a 30-day no-action period, a record of decision approving the final plan will be signed by the NPS Midwest regional director. The record of decision will document the NPS selection of an alternative for implementation. Once the record of decision is signed, the plan can then be implemented.

The approved plan sets a vision and framework for the future of trails and associated facilities in Cuyahoga Valley National Park. However, the completion of the plan does not ensure that all actions will occur or that funding will be available. As the plan is implemented, public involvement opportunities will occur for associated actions. Some actions may require additional compliance or agency review prior to implementation, subject to federal and park regulations.