

## Cover Sheet

### Proposed agency actions

It is proposed to designate and re-construct four miles of lease (private mineral access) and forest roads as designated off-road vehicle trail. It is proposed to construct approximately two miles of new off-road vehicle trail in the vicinity of Gore-Greendale Road and State Highway 595 and to construct a trail bridge over Monday Creek. It is proposed to expand the New Straitsville Trailhead parking lot.

### Type of statement

Environmental Assessment

### Lead agency

USDA – Forest Service

### Deciding official and for further information

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### Abstract

It is proposed to designate and re-construct approximately four miles of lease (mineral access) roads as loop trails within Unit 2 of the ORV Management Area and to construct approximately two miles of high standard off-road vehicle (ORV) trail to connect Unit 2 to the designated trail in the vicinity of State Highway 595. Alternatives D and E propose the construction of a trail bridge across Monday Creek. Alternative B is to construct both the loop and connector trails with no bridge. Alternative C is to construct the connector trail with no trail bridge. Re-construction of existing lease roads would require shaping, hardening, installation of culverts, and closure of non-designated trails. Illegal trails in the area not proposed for inclusion in the designated trail system would be closed by installing barricades of rock, dirt or fences and rehabilitated where necessary. The New Straitsville Trailhead parking lot would be expanded by approximately 10 spaces by windrowing trees and brush, grading, and hardening the surface.

The purpose of this project is to provide safe and legal access to the designated trail for an increasing number of riders using trails on the Wayne National Forest.

### Note to the reader

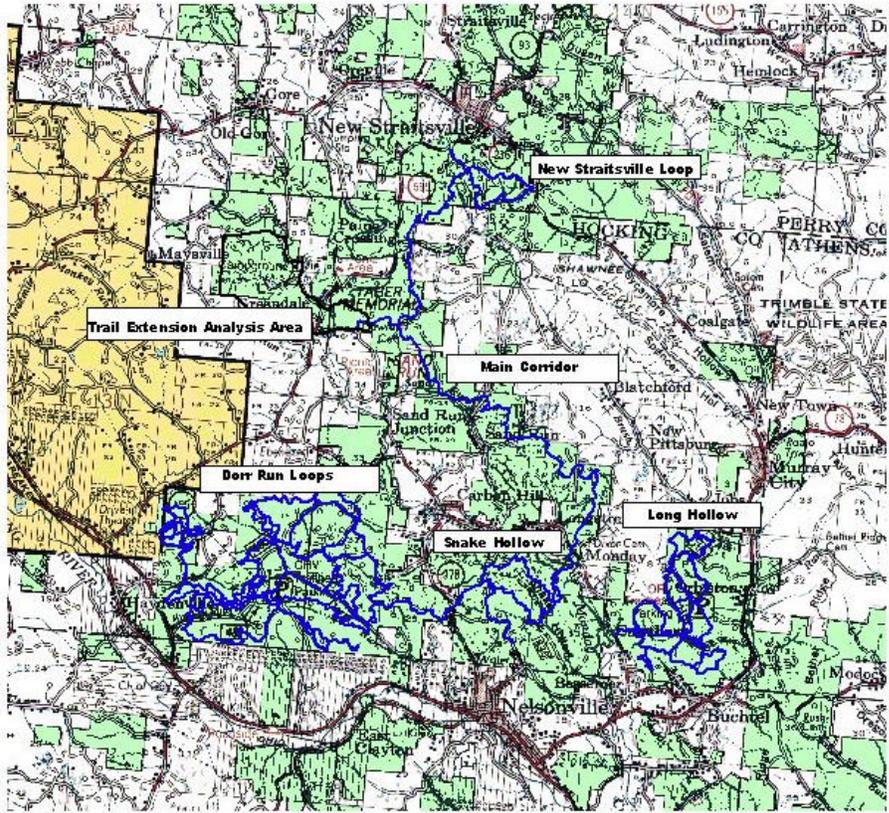
A project file containing all documents collected during preparation of this analysis is available to the public in the Athens Ranger District office at the above address in Nelsonville, Ohio. Map 7 shows all components of the proposed trails and bridge and is embedded in the document. If you are looking at the internet version, please open the map package for maps of each alternative, roads, and parking lot. These were separated due to the number of maps and size of the files.

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**Monday Creek ORV Trail Extension Analysis**

**Map 4: Alternative A  
No Action Alternative  
(Showing Existing Trail System)**



 Designated Off Road Vehicle Trail System



## Chapter 1. Purpose and Need

This chapter describes the Proposed Action, the historical setting for the project area, the scoping process and the issues identified during scoping, delineates issues not carried further in the analysis, and discusses laws affecting the scope of this decision.

The purpose of this project is to provide a high standard off-road vehicle (ORV) trail in Unit 2 of the ORV management area designed to minimize the environmental impacts of ORV use, and to move toward the 1988 Forest Plan goal of developing a total of 250 miles of trail on the Forest.

There is a need for safe and legal access to the existing ORV trails from concentrations of services provided to ORV users by private businesses. There is a need for additional parking for vehicles and trailers at present levels of trail use. There is a need to eliminate resource damage caused by illegal ORV use by closing and rehabilitating illegal trails.



*Recreation Technician Mike Grebeck stands on Forest Road 526 which is proposed to be designated as an ORV trail.*

## Proposed Action

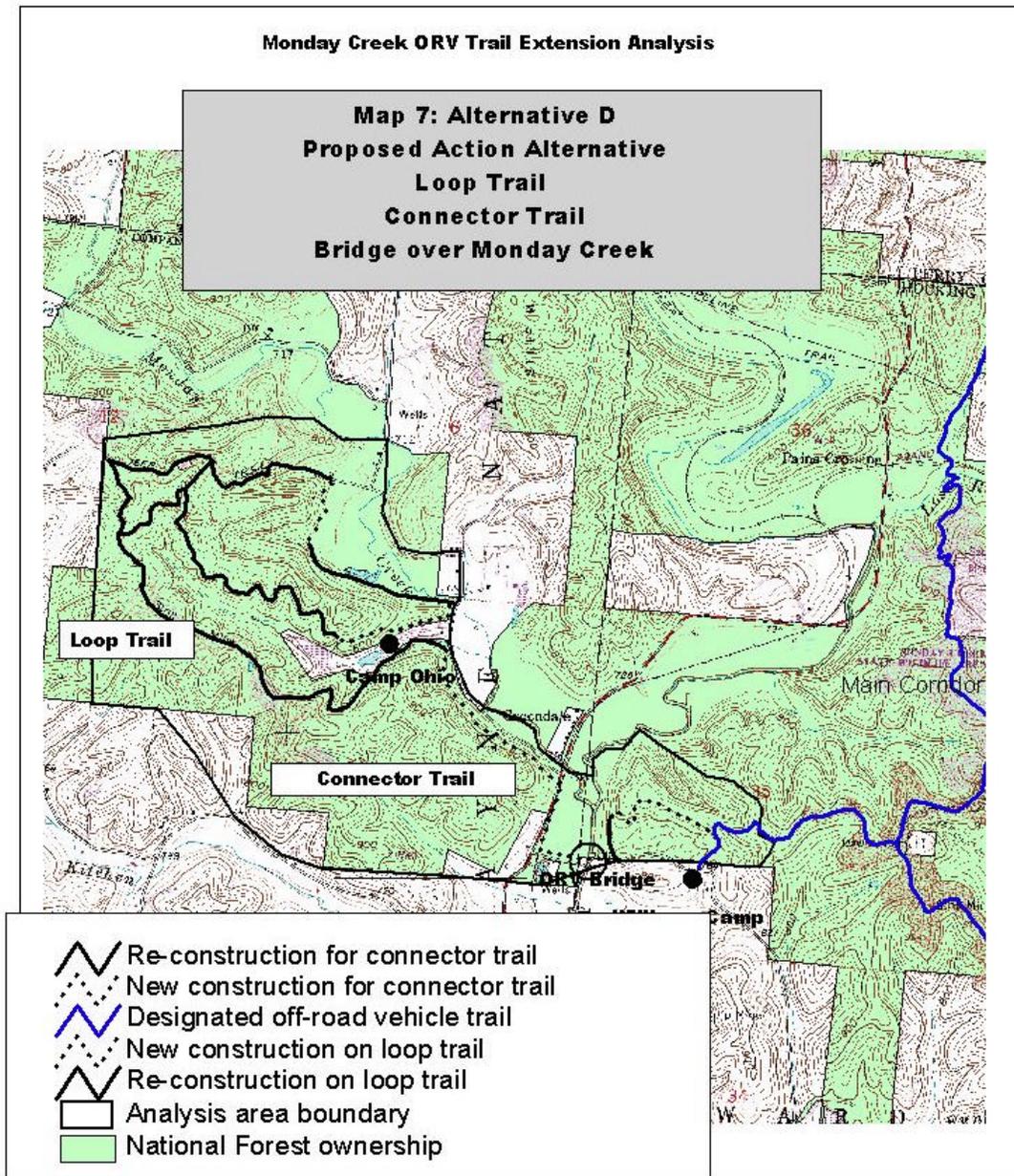
It is proposed to designate and re-construct approximately four miles of lease (mineral access) roads as loop trails within Unit 2 of the ORV management area and to construct approximately two miles of high standard ORV trail to connect Unit 2 of the ORV Management Area to the designated trail in the vicinity of State Highway 595. See Map 7 on the next page for the proposed trail extension.

Re-construction of existing lease roads would require shaping, hardening, installation of culverts, and closure of non-designated trails. Illegal trails in the area not proposed for inclusion in the designated trail system would be closed by installing barricades of rock, dirt or fences and rehabilitated where necessary.

The New Straitsville Trailhead parking lot would be expanded by approximately 10 spaces by windrowing trees and brush, grading, and hardening the surface.

## A. Background

The ORV trails on the Wayne National Forest were developed by users riding wherever they chose over a period of almost 30 years. In 1988, an ORV management area was designated in the Wayne National Forest Land and Resource Management Plan. An environmental assessment (EA) signed in 1990 approved a trail system within the 3.2 and 2.3 management areas on the Athens Unit of the Athens Ranger District, consisting of selected existing trails that were reconstructed and new trails constructed to meet Forest Service trail standards. The 1990 EA delineated seven units within the two management areas. No trails were planned in Unit 2 (west of State Route 595) at that time. See Map 1 in this chapter for the 7 units.



This project (in Unit 2) is located near the small community of Greendale, and is in the proximity of two private campgrounds. One of the existing private campgrounds does not have legal and safe access to the Monday Creek ORV Trail system. The Forest Service provides no public campgrounds in this area, only primitive dispersed (roadside) camping with pit toilets. Private campgrounds provide the only full service overnight accommodations. The nearest ORV parking area is 2.5 miles away and provides parking for only a few vehicles plus trailers. Trail users access the trail system on user-developed trails from private property and from public roads.

The need for trail development in Unit 2 of the ORV area was known in 1990 when the first ORV trail environmental analysis was completed. A team was assigned and analysis began in June of 1996. When trail signing was done in 1997, the need for safe and legal access from the Gore Greendale area to the designated trail was increasingly evident. An EA was issued for Notice and Comment in August of 1999. No Decision Notice was signed at that time. Analysis began again in 2000 with the preparation of this document.

A second project initiation letter was signed in June of 2000. New alternatives for an additional 14 miles of trail were briefly considered in October of 2000 (Crockett 2000) and are described in Chapter 2 as Alternatives Not Analyzed Further. Analysis has continued through FY 2001-2002 with the original alternatives proposed in 1996. All specialist input has been updated to reflect new information since the original analysis in 1997-1999.

## **B. Decision To Be Made**

The Athens District Ranger would decide whether to implement one of the alternatives proposed to meet the purpose and need or to defer any action at this time. The decision to be made is limited in scope to the

designation or construction of the proposed 6.1 miles of trail in the Greendale area, the construction of a bridge across Monday Creek, and the expansion of an existing parking lot. The decision to allow ORV use on the Forest was made in the Forest Plan. No decisions would be made for actions that are not responsive to the expressed 'Purpose of and Need for Action'.

No other agencies, federal or state, are directly involved in this decision. See Chapter 4 for agencies consulted.

## **C. Laws and Decisions Affecting the Scope**

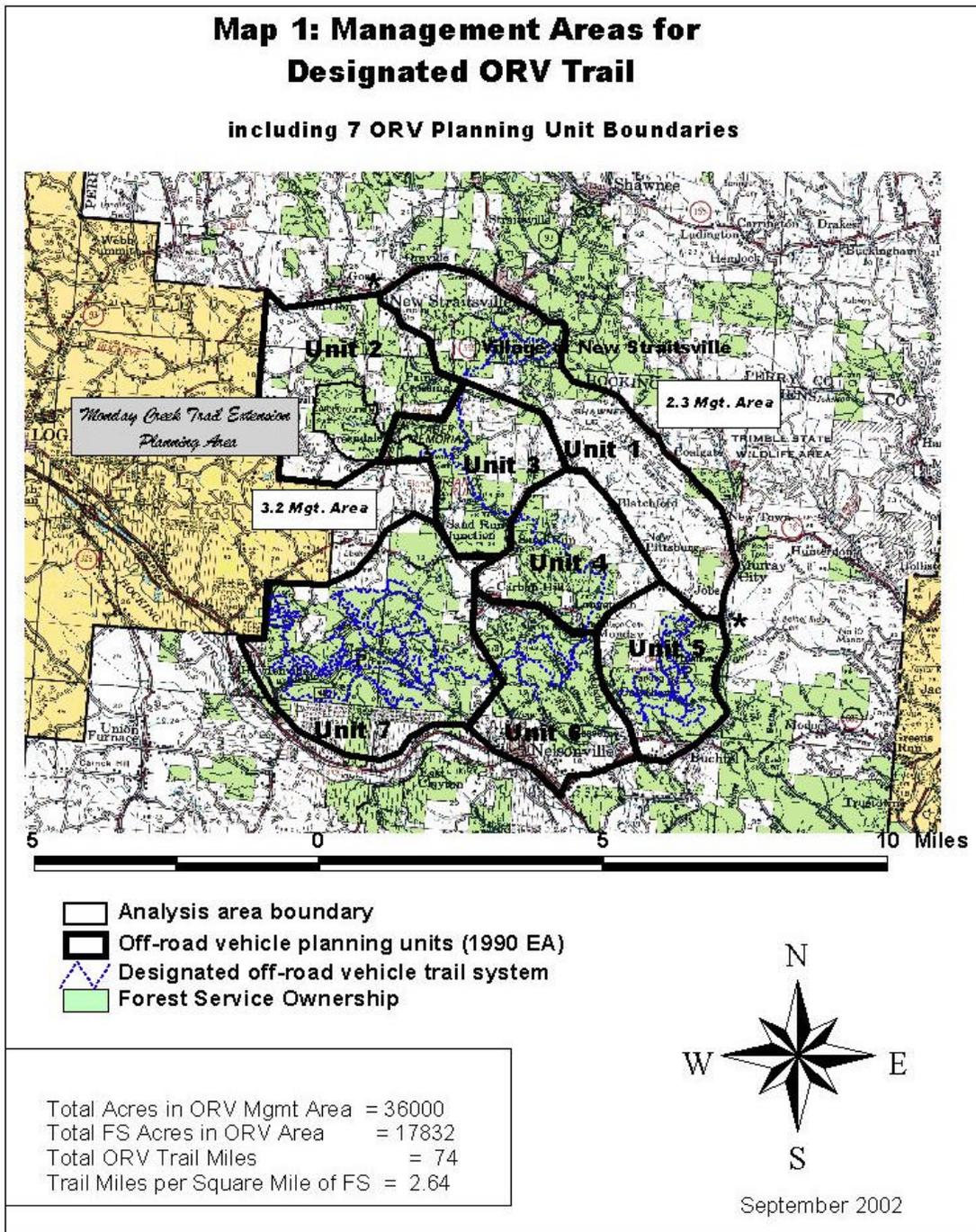
Note: The impact of other laws on this project is discussed in Chapter 3.

### **1988 Forest Plan Implementation**

In 1988 the Wayne National Forest Land and Resource Management Plan (Forest Plan) designated the 3.2 and 2.3 Management Areas (MA) for timber management and off-road vehicle (ORV) trail use (see Wayne Forest Plan 4-86 through 4-98). A Forest Supervisor's Order No. 88-11-09-01 was issued on August 31, 1988, closing all other areas of the Forest to ORV use (See Forest Closure Orders, Project File #54-8).

The Forest Plan states that "the density of designated ORV trails in Management area 3.2 will average 6.4 miles per square mile and in Management Area 2.3 will average 3.2 miles per square mile. (4-16 and 4-98). Projected annual construction was 25 miles (Forest Plan, Table 4-1 on page 4-5) per year to achieve a potential total of 250 miles in the first decade of Plan implementation (Forest Plan, Table 4-27 on page 4-181).

An analysis of trail density for Forest trails (USFS 2001) determined that a total of 74 miles of trail exists and that overall density of trails in the 3.2 and 2.3 management areas is 2.4 miles per square mile. Per the 1990 ORV EA, the ORV Management Areas



were divided into 7 management units (See Map 1). Unit 2 lies west of State Route 595 and south of Gore-Greendale Road and is in the 3.2 Management Area where trail density is prescribed in the Forest Plan to be

6.4 miles. No trail miles have yet been designated in this Unit. The proposed action implements the forest goal of building or designating additional trail miles in this management area.

According to the 1988 EIS for the Forest Plan, the mid-1980's system of wide-open use was proven to be unmanageable for the Forest Service and unacceptable to many of our publics in addition to not complying with NFMA direction. The National Forest Management Act directs that off-road vehicle use be planned and implemented to minimize adverse effects on the land and resources, promote public safety, and minimize conflicts with other uses (Wayne Forest Plan EIS 2-81). As part of the National Forest System, the Wayne is managed under the concept of multiple-use management as directed by the 1976 National Forest Management Act. The ORV section of the Forest Plan complies with the National Forest Management Act and the Code of Federal Regulations by minimizing adverse effects and conflicts, and promoting public safety, with the selection of the management areas and establishment of standards and guidelines (Wayne Forest Plan EIS 2-83).

ORV use on the Forest continues to increase. In 2001 over 10,000 ORV permits were sold for use on trails on the Wayne National Forest. Forest Protection Officers report overflowing dispersed camping sites and parking lots during many weekends (see Wikle 2001-2002). Many families and groups of 5-12 riders are observed. Illegal use on non-designated trails and on township and county roads has been addressed and documented by warnings and violation notices issued by Forest Service Law Enforcement personnel and local enforcement officers. The Forest has used volunteers and private contractors to close many miles of illegal trails.

### **1988 Forest Plan Environmental Impact Statement**

The 1988 Wayne Forest Plan Draft Environmental Impact Statement (USFS 1986,) selected alternative (2-66) prescribes that off-road vehicle opportunities will be provided in both high (MA 3.2) and low (MA 2.3) trail density areas. The EIS also

states (4-75) that separating recreation uses by management area increases long-term environmental productivity. There is an irretrievable commitment of soil lost from construction of recreation facilities or when one type of recreation use replaces another (page 4-77), and a reduction in the ability of small amounts of land to achieve resource production potential for timber, wildlife and forage (page 4-77) due to an increase in developed recreation.

Analyses for this EA would be tiered to decisions made and analysis covered in the 1988 Wayne Forest Plan and EIS.

### **1990 ORV Trail Environmental Assessment**

An environmental assessment was signed in 1990 for ORV Trail Construction in the Monday Creek Area. This EA proposed that existing poorly located trails would be closed to ORV use and re-vegetated and that desirable existing trails would be tied into a looping system through new trail construction. The existing 74 miles of trail was designated under this EA. The EIS recommends a site-specific analysis for trail construction. The 2002 EA is site specific to the 6.1 proposed miles in the Greendale area.

### **Federal permits, licenses, entitlements necessary to implement the project.**

Selection of either alternative D or E would require a permit from the Army Corps of Engineers for construction of the Monday Creek bridge. This would be completed when funds are secured for the bridge. Two alternatives were generated (B and C) which do not build the bridge over Monday Creek. At the present time, it is legal only to walk an off-road vehicle over a township bridge. Alternatives D and E build the additional trail bridge next to the township bridge.

The Ohio Department of Transportation permit for the crossing of 595 would need to

be updated for all alternatives except the No Action (A).

#### **D. Summary of Scoping**

Concerns were raised internally from recreation and law enforcement personnel and externally from the ORV community about safe and legal access to the designated trail system, and the need to meet forest planning goals and increase trail mileage. These concerns drove the development of the proposed action.

Issues and management concerns related to the proposed action were identified by reviewing Forest Plan direction for the area, by reviewing previous decisions and non-decision documents relating to trails, and by public scoping. Letters requesting comments on the proposed action were sent to 48 groups and individuals on August 12, 1996. These individuals represented recreation user groups, congressional and other political representatives, and environmental groups. Responses were received by September 18, 1996, from 213 people.

An Environmental Assessment (EA) was issued in 1999 for a 30-day Notice and Comment period. Seven commenters responded. Responses were received as written letters, telephone calls, and personal contacts. No Decision Notice was issued at that time. The proposed actions have remained the same and all previous comments related to this action have been considered as scoping. Consideration of all previous comments can be found in Project File # 12.

##### **D. 1. Issues**

An issue is a problem that might occur if the proposed action is implemented. The interdisciplinary team considered many issues and recommended elimination from further consideration those which were not significant or which have been considered and resolved in prior environmental reviews. Issues that were outside the scope of the

proposed action were also regarded as not significant. The project file contains a summary of all issues and the team's rationale for determination of non-significance.

Major issues raised during scoping were utilized to develop alternatives to the proposed action, to analyze environmental effects, or to generate mitigation measures that reduce environmental effects.

Four issues drove the environmental analysis and are summarized here.

##### ***Fragmentation of Forest Floor Habitat***

**Commentors are concerned that habitat for small mammals and amphibians on the forest floor may be fragmented.**

##### ***Soil and Water***

**Commentors are concerned about cumulative effects of trail construction and use on aquatic communities.** A concern was raised about erosion from trails, siltation of streams and increased stream temperatures resulting from trails (roads).

**Some commentors were concerned about adding additional miles to a trail system with an already heavy maintenance load.**

This issue focuses on concern about construction of trails in an already heavily impacted area, the impact of decreased water quality due to increasing rates of soil erosion and mass wasting events.

##### ***Social/Recreation***

**Commentors are concerned that the Forest Service is establishing precedent by building a trail to a private campground.** Some commentors were concerned about constructing a trail to a private campground or interfering with development of a private trail for fee.

These issues have either generated new alternatives, generated mitigations, or are analyzed in Chapter 3. Environmental Consequences.

## **D. 2. Issues Not Carried Through Analysis**

### ***Impact of the project on forest canopy fragmentation***

The designation of 4 miles of existing lease and forest development roads as ORV trails and the construction of approximately 2.1 miles of new trail in this project is not expected to isolate populations of wildlife or isolate patches of critical habitat (an indirect effect) beyond the impacts of past and present activities which have been on the landscape for 30-100 years. Construction of approximately 2.1 miles of new trail would fragment habitat for ground-dwelling mammals, amphibians, and reptiles (see Chapter 3), none of which are threatened or endangered.

None of the trail construction or re-construction activities described in the proposed action create additional edge, open up the overstory canopy, or are expected to change the forest so as to impact biodiversity of wildlife species in the project area. For these reasons, the issue of forest canopy fragmentation was considered conjectural and not supported by scientific evidence.

### ***Conflicts between ORV and non-ORV users***

Some commentors felt the trail additions would interfere with other uses in the area. The Forest Plan utilized extensive public input in the decision to designate Management Areas 3.2 and 2.3 for designated off-road vehicle trails. There are approximately 37,000 acres across the Forest in these management areas out of a total acreage of 240,000 Forest acres, or 15% of the Forest ownership. This issue is outside the scope of the decision now being made to designate, re-construct, and construct an ORV trail within the Management Areas for that purpose.

Some commentors were concerned with the lack of control over illegal trails and the destruction of woodlands. Illegal ORV

trails are primarily a law enforcement issue and are addressed in the Annual Plan of Work for law enforcement on the Wayne National Forest and by the annual Recreation Season Work Schedule as issued by the Assistant District Ranger for Operations (in District Files). The District closes and rehabilitates illegal trails every year according to direction in the Forest Plan. This issue is considered outside the scope of this decision.

### ***Roads Analysis***

Commentors were concerned that roads are not described in forest road inventory, exceed road density limits, and adversely impact the forest. Some commentors felt that ORV trails are the same as roads and the impacts should be analyzed as such.

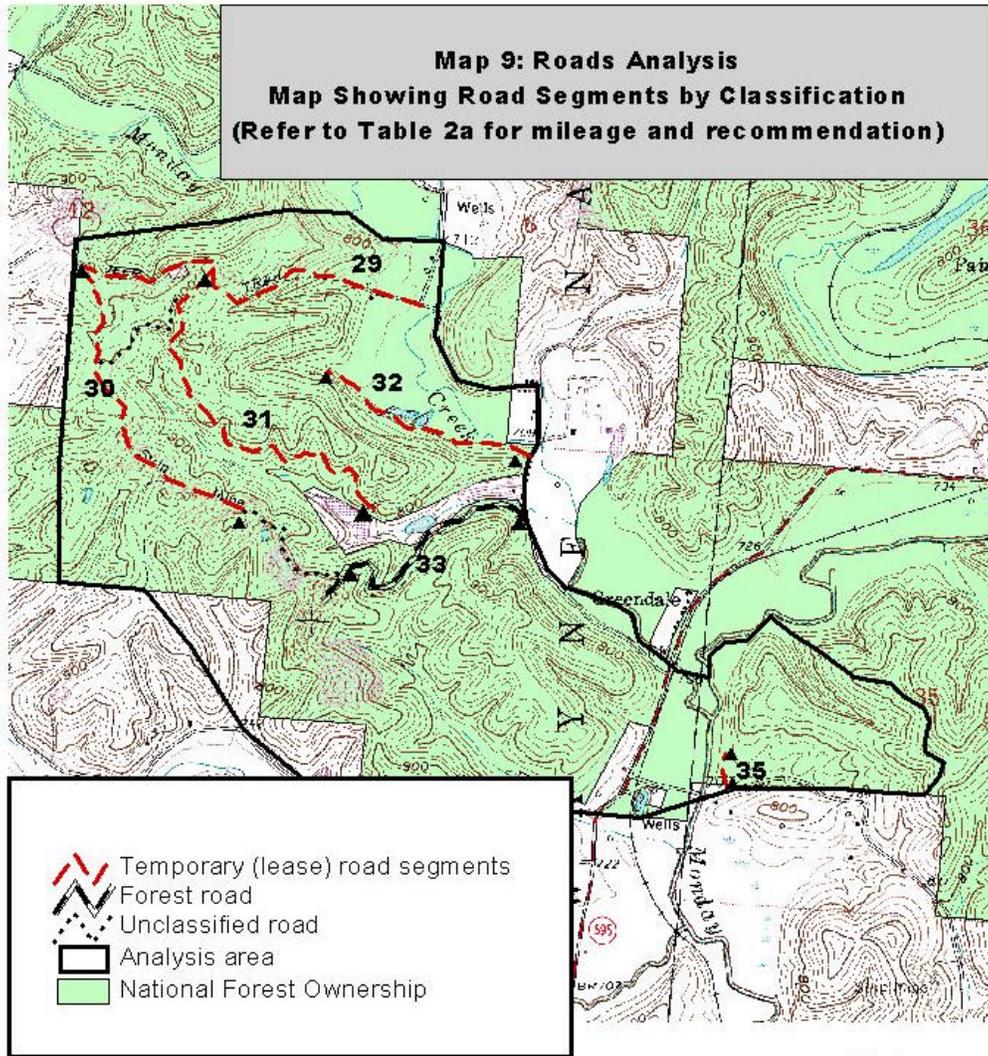
Per regulations in 36 CFR 212, 261, and 295 proposed in the Federal Register on March 3, 2000, roads on each national forest will be inventoried through a Roads Analysis Process (USFS Manual 7700).

Definitions contained in FS guidance clearly separate roads and trails and the purposes of each. Forest roads are defined by standards contained in Forest Service Manual 7700 (PF 54-13). FSM 7705 defines a road as a motor vehicle travel-way over 50 inches wide, unless designated and managed as a trail. A road may be classified, unclassified, or temporary (36 CFR 212.1).

FS Trails Handbook 2309.18 defines a Trail as a commonly used term denoting a pathway for purposes of travel by foot, stock, or trail vehicles. An all-terrain vehicle trail is defined as a trail for any motorized, off-highway vehicle 50" or less in width, having a dry weight of 600 pounds or less that travels on three or more low-pressure tires with a seat designed to be straddled by the operator. The Forest Plan clearly sets Management Areas 3.2 and 23 aside for off-road vehicle trails.

The Forest Road inventory includes .6 miles of classified road in the project area (see

Monday Creek Orv Trail Extension Roads Analysis



Map 9. Roads Analysis). The road is designated as Forest Road 526 in Fractional Section 6 as a result of the Maysville Timber Sale in 1987 (US Forest Service 1987). An abandoned township road is now a mineral

lease road, also considered a temporary road, in the northern part of the project area.

All other roads considered as access roads for oil and gas activities are mapped in the

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Athens Ranger District Mineral Resources Atlas, in Map 9 of this document, and are covered in the Roads Analysis in Appendix A. The access roads for oil and gas are referred to as lease roads when they occur on Forest Service surface ownership and also within the property boundary of a mineral lease held by a private party.

A Standard and Guideline for trail density can be found on page 4-17 in the Forest Plan (USFS 1988a). No limit on road density for Forest roads is set in the Wayne Forest Plan.

This issue is considered covered by existing regulations and by the Wayne Forest Plan.

#### ***Wildlife is chased by off-road vehicles***

Reports that wildlife is chased by off-road vehicles have mostly been from western states, which have trails in open, non-forested areas. This issue is conjectural and not supported by scientific evidence.

#### ***Impacts of vehicle noise on wildlife***

The effect of noise on wildlife is very difficult to research. Some studies have dealt with the impact of aircraft noise on wildlife. A search of the literature on noise impacts was reviewed and is located in the Project File (Bowles 1995). Some comments from the study are included here.

Wildlife becomes "habituated to vehicle noise at levels that are not aversive" (Bowles 1995). "Noise and noisy disturbances may affect activity and energy consumption, but the effect is modulated by behavioral and physiological adaptation. Habituation keeps animals from expending energy and attention on harmless stimuli" (Bowles 1995).

Roads and noise associated with roads have been present in this project area for 100 years. This issue is conjectural and not supported by scientific evidence.

#### ***Impact of compaction on soil microorganisms***

Commentors raised a concern about construction of trails in an already heavily impacted area. Commentors are concerned that soil compaction from the trail would kill off many of the microorganisms such as fungi and bacteria in the soil. Commentors asked that we consider impacts of compaction, vegetation removal and erosion.

Organisms of a wide range of sizes and types inhabit the soil. They can live in a variety of conditions, but require oxygen, moisture, organic matter, and nutrients to survive.

Most macro-fauna are found in the top 6 inches of mineral soil, though earthworms can be found three meters deep. The approximately 6.1 miles of proposed trail and user-developed trail in the project area (1.48% of the project area) estimated to be impacted by roads and trails probably lack much microbial or macro-faunal activity in the top 6 inches of mineral soil. The remaining 98.5% of the project area is likely to have normal microbial activity.

Micro-fauna and microorganisms have not been measured in the project area. Since healthy vegetation requires active soil life, the condition of the vegetation is used as an indicator of soil health. Vegetation in this project area appears to follow normal patterns of litter fall with the accompanying incorporation of organic matter into the nutrient cycle of the soil.

The 4 miles committed to roads for long-term use in the planning area have been compacted for many years and would remain compacted. Under the No Action Alternative, illegal trails developed by users to access the designated trail would probably continue to be used and would continue in their current state of compaction. Soils normally contain such a huge variety of organisms that it would require a severe or drastic disturbance to damage the micro-

biota sufficiently to affect species richness and diversity (Chalfant 2000).

The one-acre addition to the parking lot on Route 595 would occur on deep, well-drained Westmore silt loam soils on the ridge top. These soils have properties and qualities well suited for this specific use. The EIS for the Forest Plan addresses the ir retrievable commitment of land to some uses, including recreation (Chalfant 2000).

***Impact of the project on air quality***

Commentors are concerned about tailpipe emissions from ORVs and the threat of air pollution to forest. According to Ohio EPA, live vehicle emissions, especially from automobiles, are a major contributor to ground level ozone (called smog). Ohio has an Emissions Check program in 14 counties, not including any southeastern Ohio counties. The types of vehicles tested include passenger cars and light-duty trucks, including commercial and government vehicles. No mention is made of testing off-highway vehicles in this source. This information was obtained from the Ohio EPA website for air quality (Ohio EPA 2001).

Ohio has no ozone containment zone near the Wayne National Forest's Athens Ranger District. Ohio has not set limits for, nor measures, emissions from off-highway vehicles. The State of Ohio is not ready to begin testing local air quality for a use such as an off-road vehicle trail (per conversation with Jim Loper, SE Ohio District, Ohio EPA, (Wikle 2001). Off-highway vehicles are driven many fewer miles per year and often in dispersed sites (per conversation with Joe Carson (Wikle 2001), hence lower overall emissions and lower regulatory interest.

US EPA is presently developing regulations to control the emissions from "New Non-road Engines and Highway Motorcycles", per the Agency's Regulatory Announcement (US EPA 2000). Since 1994, EPA has established emissions control programs under the Clean Air Act for various classes of non-road engines. EPA standards for highway motorcycles were established more than 20 years ago (US EPA 2000). These emission standards are only applied at the factory at this time. No emission controls are expected on-site at recreation areas. At this time, this issue is considered outside the scope of this environmental analysis.

## Chapter 2. Alternatives, Including the Proposed Action

This chapter presents in detail the Proposed Action, the No Action Alternative and other action alternatives that meet the Purpose and Need and that were considered during the analysis. A discussion is included on alternatives not analyzed further.

All action alternatives include mitigations as proposed by the specialists. Some mitigations apply only as appropriate, such as those for the type bridge selected and those for dealing with a large road rut on the ghost road (See App A) on the loop trail. Mitigations can be found in Tables 2-2 and 2-3 at the back of this chapter.

	Loop Trail (4 mi)	Connector Trail (app. 2.1 mi)	Bridge over Monday Creek	Parking Lot Addition
Alternative A	No	No	No	No
Alternative B	Yes	Yes	No	Yes
Alternative C	No	Yes	No	Yes
Alternative D	Yes	Yes	Yes	Yes
Alternative E	No	Yes	Yes	Yes

### A. The Proposed Action (Alternative D)

The proposed action is to re-construct 4 miles of mineral lease road for use as both mineral access road and ORV trail, and to construct approximately 2.1 miles of high standard off-road vehicle (ORV) trail in Green Township of Hocking County (see Map 2 and Map 7). The proposed action includes the construction of an off road vehicle bridge over Monday Creek approximately 100 feet north of the township bridge. The New Straitsville ORV parking lot on St Route 595 (see Map 2, next page) would be expanded. Illegal trails not on lease or system roads would be rehabilitated and closed.

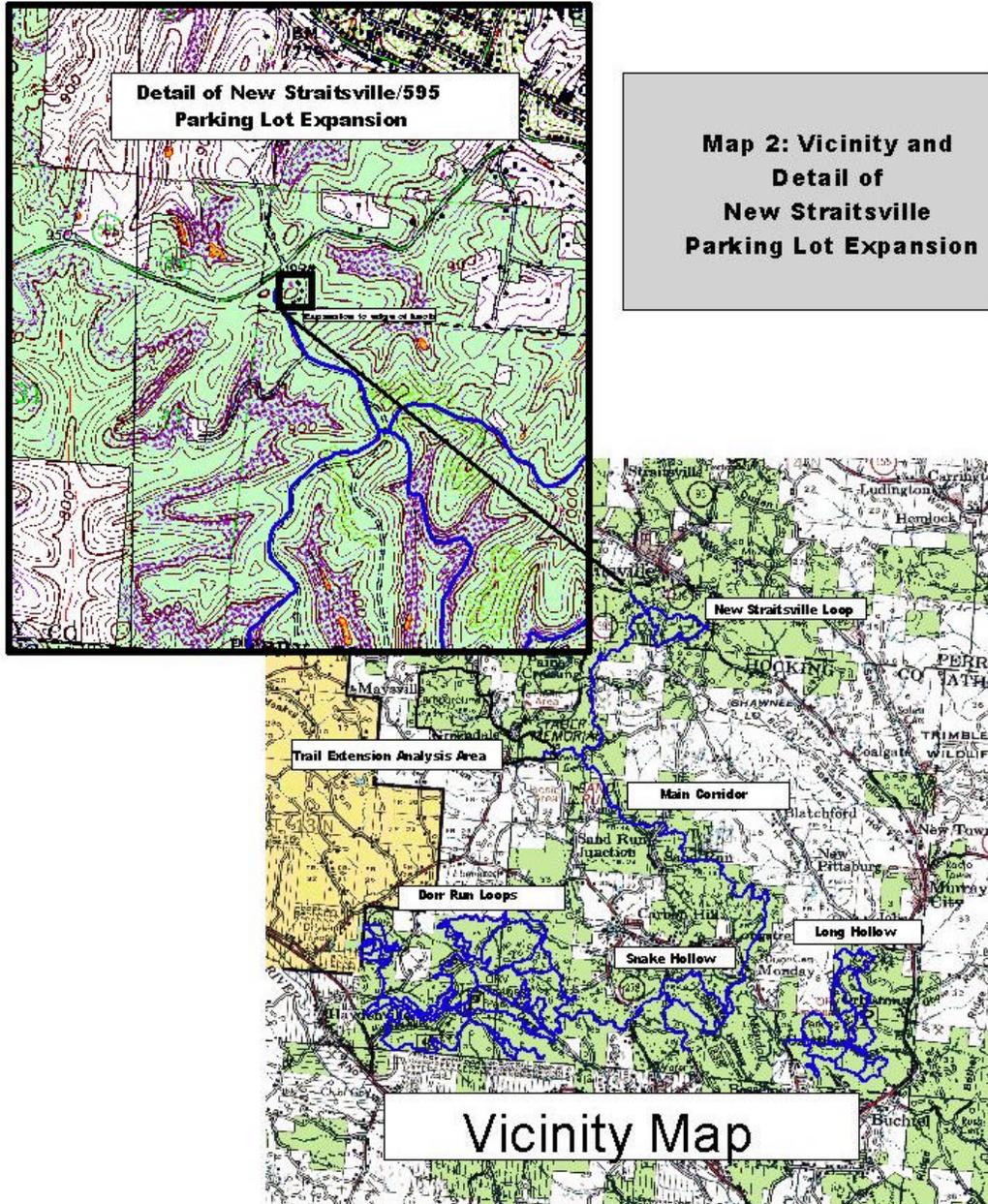
The proposed action is in response to concerns by the public about safe and legal access to the designated trail, about development of additional trail miles, about the development of trail miles while protecting resource values, and the need for additional ORV truck/trailer parking. It also responds to concern about resource damage from illegal ORV trails.

Approximately 2.1 miles of this trail would be new construction and would require grubbing of saplings, grading, ditching, installation of culverts, hardening, and signing of the trail to connect an existing private campground and Unit 2 of the ORV management area to the designated ORV trail system. Much of this trail is located on an old railroad grade, a power line right-of-way, or a natural topographic bench. This section of trail would be open to all riders.

An additional 4 miles of trail would follow a corridor of existing disturbed areas such as oil and gas lease roads, a designated forest road, and a short section of an historic coal haul road and would require reconstruction including grading, shaping, hardening, installation of culverts, and signing of the trail.

A bridge would be constructed over Monday Creek parallel to County Road 28 (bridge location is included on all alternative maps).

### Monday Creek ORV Trail Extension Analysis



**Map 2: Vicinity and Detail of New Straitsville Parking Lot Expansion**

 Designated ORV Trail  
 National Forest Ownership





*Location of new off-road vehicle trail bridge over Monday creek next to the C28 bridge.*

Ten new spaces would be added to the New Straitsville Trailhead parking lot by removing less than one acre of forest on the south side, laying a stone base, and armoring the surface with crushed gravel. Trees and brush would either be windrowed around the parking lot addition to provide wildlife habitat and a barrier to keep ORVs on the parking lot and adjacent trail, or piled and burned within the perimeter of the addition. The grade would be sloped by 2-4% to drain the water.

Rehabilitation of illegal trails would use a combination of wood fence, large rock, brush and signage to close trails. Several water holes (road ruts) would be left but water control structures such as water bars would be constructed to prevent water movement and erosion. The areas that can be reseeded would be, but the rougher areas would be left alone and reclaimed naturally.

**B. Other Alternatives Considered in Detail**

A comparison of the impacts by alternative can be found in Table 2-4 at the end of this chapter.

*Alternative A: No Action*

<i>Alternative A: No Action</i>	
<i>Miles of trail</i>	<i>0</i>
<i>Closure of illegal trails</i>	<i>No</i>
<i>Monday Creek Bridge</i>	<i>No</i>
<i>Parking Lot</i>	<i>No</i>

The No Action alternative is defined as no change from existing management direction. It would not change the existing condition. No trail would be designated in the Greendale area (Unit 2) of the ORV Management Area. Riders using the Camp Ohio facilities would not have safe and legal access to the designated trail system. No additional miles would be added to the designated trail system. No additional spaces would be added to the New Straitsville parking lot. Illegal trails would not be rehabilitated under this decision. No mitigations are recommended for this alternative.

The No Action alternative would not comply with current Forest Plan direction to continue development of the designated ORV trail system.

**Alternative B: Connector and Loop Trails without the Monday Creek Bridge**

<b>Alt B: Trail Without Monday Creek Bridge</b>	
<i>Miles of trail</i>	<i>6.1</i>
<i>Closure of illegal trails</i>	<i>Yes</i>
<i>Monday Creek Bridge</i>	<i>No</i>
<i>Parking Lot</i>	<i>Yes</i>

Under this alternative the 4 miles of loop roads around Camp Ohio would be designated as ORV trail, the connector between Camp Ohio and the existing designated trail system would be built (approximately 2.1 miles). Riders would be required to cross Monday Creek by dismounting and walking their vehicles across the existing township bridge that runs adjacent to the proposed connector trail. This alternative is less costly to construct than Alternatives D which build the bridge across Monday Creek, but fails to provide safe and legal access to the designated trails.

The New Straitsville trailhead parking lot would expand by 10 additional parking spots and four miles of user-developed trail would be rehabilitated and closed. Rehabilitation

activities on illegal trails would consist of using a combination of wood fence, large rock, brush and signage. Several water holes (road ruts) would be left but water control structures such as water bars would be constructed to prevent water movement and erosion. The areas that can be reseeded would be but the rougher areas would be left alone and reclaimed naturally.

The loop trail around Camp Ohio would follow a corridor of existing disturbed areas such as old coal haul roads, a forest road, and existing oil/gas roads. These would require reconstruction including grading, shaping, hardening, installation of culverts, and signing of the trail.

**Alternative C: Connector Trail, No Bridge**

This alternative builds the approximately 2-mile connector trail between Unit 2 of the ORV management area and the designated trail and expands the parking lot at New Straitsville. This alternative would not designate a trail utilizing existing lease and forest roads around Camp Ohio, but would involve the construction of the trail known as the connector (approximately 2.1 miles) between Camp Ohio and the existing ORV trail system.

No road ruts are known to currently occur within this area, however, vernal pools are evident adjacent to the abandoned railroad bed during the spring. Mitigations described in Table 2-1 would help to keep riders from using the wetland near the vernal pools.

Two small bridges would be constructed spanning drains and ditches from Camp Ohio to State Route 595 and expansion of the New Straitsville parking lot would also occur.

Rehabilitation activities on illegal trails would consist of using a combination of wood fence, large rock, brush and signing. Several water holes (road ruts) would be left in the closed area, but water control structures such as water bars would be constructed to prevent water movement and

erosion. Some areas would be reseeded, but the rougher areas would be left alone and reclaimed naturally.

This alternative would be less costly than Alternative E due to the cost of the bridge, but would not be as safe because riders would need to use the bridge. Riding across the bridge is presently illegal; walking is the only acceptable means of using the bridge.

<b>Alt C: Connector Trail w/o Monday Creek Bridge</b>	
<b>Miles of trail</b>	<b>Approx 2.1</b>
<b>Closure of illegal trails</b>	<b>Yes</b>
<b>Monday Creek Bridge</b>	<b>No</b>
<b>Parking Lot</b>	<b>Yes</b>

No loop trails would be constructed in Unit 2 of the ORV Management Area. Illegal trails not designated in this alternative would be rehabilitated.

**Proposed Action: Alternative D: Connector and loop trails with the Monday Creek Bridge**

This alternative would build the connector between Unit 2 of the ORV management area and the loop trail in Unit 2 and would include construction of an ORV trail bridge over Monday Creek. The parking lot at New Straitsville would be expanded. Illegal trails not designated would be rehabilitated

<b>Alt D: Loop and Connector Trail With Monday Creek Bridge</b>	
<b>Miles of trail</b>	<b>6.1</b>
<b>Closure of illegal trails</b>	<b>Yes</b>
<b>Monday Creek Bridge</b>	<b>Yes</b>
<b>Parking Lot</b>	<b>Yes</b>

**Alternative E: Connector with the Monday Creek Bridge**

This alternative builds the connector trail between Unit 2 of the ORV Management

Area and the designated trail north of Township Road 28 with a bridge over Monday Creek. The parking lot at New Straitsville would be expanded. Illegal trails will be rehabilitated. This alternative provides safe and legal access from Unit 2 and from the private campground, but does not develop additional trail miles in Unit 2.

<i>Alt E: Connector With Monday Creek Bridge</i>	
<i>Miles of trail</i>	<i>Approx 2.1</i>
<i>Closure of illegal trails</i>	<i>Yes</i>
<i>Monday Creek Bridge</i>	<i>Yes</i>
<i>Parking Lot</i>	<i>Yes</i>

**Table 2-2. Mitigation Measures for All Action Alternatives\***

\*Per 2001 US Fish and Wildlife Service Biological Opinion

**Wildlife and Botany Issues**

**No mitigation measures were recommended for the No Action Alternative.**

<b>Alternative</b>	<b>Butternut</b>	<b>Wildlife</b>	<b>Waterholes</b>
<p>B – 6.1 miles of Connector and Loop w/o bridge</p> <p>C – 2.1 mile Connector Trail w/o bridge</p> <p>D – 6.1 miles w/MC bridge</p> <p>E – 2.1 mile Connector w/MC bridge</p>	<p>Protect any healthy butternut found during layout of trail. Do not cut any American Chestnut.</p> <p><b>Butternut (<i>Juglans cinerea</i>) suffers from blight and is declining in population. Mitigations include protecting any butternuts found on site.</b></p> 	<p>Remove trees as needed between Sept 15 and April 15*.</p> <p>Retain or avoid live or dead trees that have split trunks, broken limbs, shredded and hanging bark, signs of cavities, hollowed out trunks. Consult with biologist for removal of hazard trees.</p> <p>Use a bridge design that accommodates roosting and nesting habitat for bats and birds. Add signage, fencing to keep people on trail near wetlands.</p> <p>Monitor trails closely to close any new trails along bottomland.</p> <p>Retain the pile of boulders located near the sweet smelling toilet at the New Straitsville parking area.</p>	<p>Protect waterhole on loop trail for wildlife use.</p> <p>Install signage and barriers and about value of waterholes and vernal pools for amphibians.</p> <p>Replace road ruts with constructed holes where necessary, then drain and fill ruts in trailway.</p>

**Table 2-3. Soil and Water Mitigation Measures**

*References are to Standard Specifications for Construction of Trails, EM-7720-102*

**No mitigation measures were recommended for the No Action Alternative.**

<b>Apply to All Action Alternatives</b>	<b>Soil erosion and stream sedimentation standards</b>
<p>B – 6.1 miles of Connector and Loop w/o bridge</p> <p>C – 2.1-mile Connector Trail w/o bridge</p> <p>D – 6.1 miles w/MC bridge</p> <p>E – 2.1 miles w/MC bridge</p>	<p>Construct trails, especially drainage facilities and work at stream crossings, between summer and fall when soil conditions and stream flows are favorable.</p> <p>Utilize culverts, bridges or hardening for ephemeral stream crossings. Hardening the outflow end of the culvert should reduce the formation of erosion scour. <b>pages 39-41</b></p> <p>Use silt fence, straw bales, brush barriers, and lead-off ditches during construction close to streams. <b>page 27</b></p> <p>Limit tree and brush removal along trail. <b>pages 14-16</b></p> <p>Install rolling dips and obstructions to prevent a smooth trail tread which would have more severe erosion problems. <b>pages 17-23</b></p> <p>Divert water run-off by rolling the trail grade, out-sloping the tread, or constructing cross drains, water bars, rolling dips, etc. <b>pages 32-33</b></p> <p>Minimize the slope on the approaches to the intermittent stream crossings. Harden or gravel stream crossings for long-term stabilization of the trail tread. <b>pages 77-78</b></p> <p>Minimize cutbanks. Avoid tight radius switchback turns. <b>pages 30-31</b></p> <p>Harden soft spots as they occur to prevent riders widening the trail. <b>pages 77-78</b></p> <p>Utilize a seasonal closure.</p> <p>Re-vegetate disturbed soils adjacent to the trail tread as soon as possible after construction.</p>

<b>Table 2-4. Comparison of Impacts by Alternative</b>				
<b>Issue</b>	<b>Alternative A: No Action</b>	<b>Alternative D: Proposed Action w/Bridge</b>	<b>Alternative E: Connector W/ Bridge</b>	<b>Alternatives B &amp; C: w/o Bridge</b>
Habitat for small mammals & amphibians may be fragmented.	Existing roads and illegal trails already fragment habitat for amphibians. Some individuals may be lost to ORV tires.	4 miles is historically fragmented; bridge would have no new impact. Some amphibians may be lost to ORV tires.	New construction may fragment some habitat. Some amphibians may be lost to ORV tires.	Same as previous alternatives – some amphibians may be lost to ORV tires.
Cumulative effects of trail construction and use may impact aquatic communities.	Poor condition of existing roads and illegal trails is contributing some sediment.	Mitigations should minimize additional erosion; one ephemeral and one intermittent stream are crossed.	Mitigations should minimize additional erosion; one intermittent stream is crossed.	Mitigations should minimize additional erosion; no new construction on Monday Creek stream bank.
Forest Service is establishing a precedent by building a trail to a private campground	No new access would be constructed; illegal and unsafe access would continue.	Connector and loop provide safe access to services and additional miles to all riders.	Connector provides safe and legal access to Unit 2 and user services.	Riders would continue to have unsafe access using township bridge.
Concern about construction of trail in a heavily impacted area and our inability to maintain trail system.	No new trails would be constructed; existing illegal trails on lease roads would continue to create erosion.	Trail maintenance is a forest priority; trail construction is under plan projection.	Trail miles are under Forest Plan projection/ project replaces illegal use a maintained trail providing safe and legal access to services.	Same as previous.

### **C. Alternatives Not Considered in Detail**

Some issues generated the consideration of other alternatives. A description of the issue and how the alternative was dealt with follows.

#### ***Construct a campground on National Forest land that would directly access the designated trail.***

This alternative responded to the concern that we were constructing a trail to a private campground. This alternative would provide a campground for the users with direct trail access, but would not resolve the existing situation at Camp Ohio. The

Wayne National Forest would be directly competing with private enterprise. A campground would be expensive to build and to operate. No location or funding for this alternative has been identified.

***Construct a large parking lot on national forest to access the designated trail in this area.***

No suitable location has been found. This alternative does not solve the problem of legal and safe access from a long-standing private campground or develop Unit 2 of the ORV Management Area.

***Close all trails.***

The decision to designate two Management Areas for off-road vehicle use was made in the Forest Plan. Since no new information on environmental effects has been presented that was not considered in the Forest Plan EIS, this alternative was not carried forward in detail at this time

***Ask Camp Ohio to shuttle ORVs to trail access.*** This is not a Forest project and would not accommodate the riders' desire to ride safely from the campground to the designated trail. Camp Ohio could provide this service now.

***Designate trail on existing user-developed ridge-top trail system.*** Due to a potential impact to unique resources in the area, this alternative was not considered further.

***Include a trail loop north of Gore-Greendale Road. Move toward the Forest Plan goal of 250 miles of trail in 10 years (1988-1998).*** An additional 14 miles of trail was considered but deferred until more analysis of the proposed routes could be completed (Crockett 2000).

## Chapter 3. Existing Condition and Environmental Consequences

This chapter describes the existing condition of the landscape in which the proposed activity would occur and the anticipated impacts of each alternative on the resources. While this chapter is organized by resources, it focuses on the four issues raised during scoping.

### *Land Use History*

According to “Journey Through the Years, New Straitsville Centennial 1870 – 1970” and “Our Journey Continues: The History of New Straitsville, Ohio, Volume One: 1870-1925, (Winenberg 1995), “Niles Kachelmacher revitalized the old Columbus & Hocking Coal & Iron Company, and, after scouting huge clay deposits south of town, founded the Greendale Brick Co. and built a huge brick plant at Greendale in 1904.” Greendale, first known as Kachelmacher, had a hotel, store, blacksmith shop and a few company houses. At its peak it produced 30 million bricks a year and employed more than 200 workers. Greendale’s “rug bricks” were used to build houses, schools and buildings throughout the United States and Canada” (Winnenberg 1995).

The Abandoned Underground Coal Mine County Index (Ohio Division of Mineral Resources) lists two mines in Section 6 of Green Township in Hocking County. The #3B Clay Mine was operated by Hocking Valley Production Company until 1916, mining the Upper Mercer Clay, Clarion Clay and Lower Kittanning Clay layers. The Butterfly 121 Mine was operated until 1922 by the same company.

This history has left in place a network of minimal design roads, highwalls from mining, and streams with high residual sediment loads. There is little left of the natural landscape.

## Effects of the Alternatives on Significant Issues and Associated Resources

### A. 1. Wildlife Issues

*Issue: Habitat for small mammals and amphibians on the forest floor may be fragmented.*

Commentors requested a population viability analysis for species or feeding guilds most prone to fragmentation effects. Commentors were concerned that the trail causes habitat degradation and that reptile and amphibian populations have been dropping dramatically throughout the world. Commentors stated that research indicates road building devastates salamander populations and to consider the impact of the proposed action on reptile and amphibian populations.

### *Existing Condition*

While world amphibian populations are outside the scope of this analysis, the life history of native amphibians is well known. Amphibians, (frogs, toads and salamanders), generally have terrestrial adults that enter the water to lay eggs which proceed through larval development. In early spring the adults migrate from their terrestrial forest habitat to the appropriate aquatic environment in which they lay their eggs. Eggs have been seen in road ruts, vernal pools, streams, ditches, waterholes, ponds, marshes and wetlands on the Wayne National Forest. During the winter months the adults over-winter under rocks, logs, leaf litter or underground.

Reptiles, (snakes, lizards, skinks and turtles), occur in a diverse variety of both aquatic and terrestrial environments. Reptile body temperature, particularly snakes, skinks and lizards, is dependent on the surrounding ambient temperatures. They regulate their body temperatures by basking in the sun when cold and seeking shade when warm.

The following description of existing condition applies to all of the action alternatives and is organized by the development proposed, i.e. loop trail, connector trail, bridge or parking lot.

**Loop Trail** - The forest surrounding the loop roads around Camp Ohio is typed as a mixed upland hardwood forest from 26 to 124 years old. These forest stands include a mixture of elm, black cherry, red maple, black gum, black locust and white ash. These types of forest are commonly found on upper slopes and their species composition is usually associated with reverted farm fields. The area was intensively mined for coal and clay in the past. There is a 35-year old white pine plantation on the south part of the upper loop. None of these forest types is unique to the area or to Ohio.

Several water-filled ruts caused by oil well maintenance vehicles and illegal ORV users are located on the lease roads and the sections of unclassified roads (See Map 9 that are proposed to be re-constructed as designated trail. These ruts are filled in the spring with amphibian eggs, larvae and adults. These ruts are important upland water sources for amphibians and other wildlife species. While these ruts are opportunistic habitat and not natural, the draining and elimination of these ruts and the ORV riders riding through them would disturb or eliminate their usage by amphibians and reptiles, which then could have a marked impact to their populations over the long term.

**Connector Trail and Bridge** - The connector trail between the Camp Ohio campground and State Route 595 follows an existing user-developed trail across a mixed upland forest (80 years old) that ends at a mature white pine plantation.

The forest in the area of the proposed trail construction (approximately 400 yards) is described as mixed upland hardwoods and

shortleaf pine stands averaging 46 years old, both very typical second growth forest types in the area. Some small understory maples, ironwood and sassafras trees would be cut and leaf litter removed to open a path for the proposed trail.

From St. Rt. 595 to Township Road 28 the trail follows an elevated abandoned railroad grade located on the flood plain of Monday Creek. This section of proposed trail is located approximately ½ mile southwest of Greendale wetland and about 60 feet north of an unnamed pond adjacent to Dawley Road T-28.

This abandoned railroad bed, powerline access, and proposed bridge construction area border a mature bottomland hardwood forest that contains vernal pools during the wet spring season. These pools are dry during other seasons of the year. Vernal pools are natural habitat and are important to amphibians as they are free from breeding populations of fish. It is thought that some amphibians have adapted their breeding cycles to exploit the occurrence of these fish-free areas. Fish are predators to many amphibian species.

**Parking Lot Expansion** - The expansion of the parking lot at the New Straitsville trailhead would require clearing of approximately one acre of land located in an upland area. The present habitat in the area is a mixed 22-year old hardwood forest composed predominately of 2-4" dbh (diameter breast high) red maples, some 9" dbh black locusts, ash, basswood and scattered tulip poplars 14-17" dbh. This is a young stand that started as a result of a shortleaf pine clearcut in 1980.

Fence lizards were seen using rip rap rock piled adjacent to the sweet-smelling toilet at the 595 trailhead. Bats have been found using roost trees in the Dorr Run area several miles south of the parking lot expansion, but all have been dead trees with large slabs of flaking bark existing within an opening in the canopy. No trees containing

this feature have been found in the construction areas and no mines or caves are located within the proposed project area (Andrews 1999).

### ***Inventories and Known Occurrences***

Although no formal reptile and amphibian surveys have been conducted within the project area, some work has been conducted at nearby Greendale wetland and at other various wetlands and ponds within the District. Amphibian eggs have been seen during the spring in the road ruts on the unclassified roads proposed for incorporation into the Monday Creek trail system. No federal or state endangered amphibian species are known to exist on the Wayne, however, a state endangered reptile, the timber rattlesnake, is known to occur in wooded or rocky areas nearby.

Greendale wetland, located within ½ mile northeast of the project area, is known to provide habitat for the following amphibian and reptile species: bullfrog, green frog, spring peeper, pickerel frog, leopard frog, wood frog, gray treefrog, Copes gray treefrog, American toad, red-spotted newt, spotted salamander, northern water snake, black rat snake, black racer, midland painted turtle, stinkpot, common snapping turtle, and Eastern box turtle. Greendale wetland provides better amphibian habitat than the project area. No project activity is expected to occur in or near the Greendale wetland or its watershed.

Jefferson's salamander is known to occur in small woodland pools within the Monday Creek ORV area three to five miles south of the proposed project area. The state endangered and regional sensitive species, timber rattlesnake, is also known to occur within the Monday Creek ORV area south of the proposed project area. Other reptiles documented by biologists and field personnel within the ORV area are the eastern garter snake, eastern hognose snake and northern copperhead. Northern fence lizards are known to occur within rock piles at the New Straitsville trailhead parking lot.

## **A. 2 Wildlife Mitigation Measures for All Action Alternatives**

The mitigation measures described in Table 2-2 (See Chapter 2) would be applied to all action alternatives. Additional mitigation measures related to the issue concerning amphibians and reptiles are described below.

### ***Road ruts***

Ruts located in upland situations, particularly on the existing ghost road, should be conserved and have barriers in place to protect them from ORV traffic. If this is not feasible, then depressions (waterholes) should be made adjacent to the road with barriers in place to prevent disturbance or loss of these structures. Once the replacement waterholes are constructed, the original ruts should be drained and filled to prevent amphibian use.

### ***Erosion control on trails, especially the connector section***

Trail construction standards (see Table 2-3) will be used during construction of the trail, particularly when placing the trail on the abandoned railroad bed crossing the Monday Creek floodplain. Also, any user-developed trails that may appear within the floodplain, off of the connector trail, need to be closed and signed immediately.

### ***Protect rock boulder pile at parking area***

Do not remove the pile of boulders located near the sweet smelling toilet, at the New Straitsville parking area. This is the only place on the Athens Ranger District where the northern fence lizards have been consistently observed. The placement of the large rocks in the open sun has made this very conducive for that local population to thrive. Additional large or boulder-size rocks could be placed near, but not on top of, the existing pile.

Other mitigation measures for wildlife include setting seasonal limitations on tree removal to prevent taking the Indiana bat, retaining suitable bat roosting trees where found, and choosing a bridge design that

would accommodate bats in Alternatives D and E.

The effects section assumes that all mitigation measures are part of the construction plan.

### **A. 3 Environmental Consequences of Alternatives on Wildlife**

#### ***Effects of No Action (A)***

There would be no change from the existing condition from this alternative. Illegal use would continue where there is a need to travel between the private campground and the designated trail. Erosion would continue from illegal trails not receiving maintenance. There would continue to be a risk from new illegal trails further fragmenting the forest floor. There would be a direct impact to amphibians when illegal riders ride through road ruts during their migration and foraging activities.

#### ***Analysis of Action Alternatives***

The reader should note that the alternatives are analyzed assuming that all mitigation measures are followed. Mitigation measures are listed in Chapter 2 (Tables 2-2 and 2-3).

#### ***Effects of Alternative B: Connector, Loop, No Bridge***

The implementation of this alternative could lead to direct impacts to amphibians and reptiles by eliminating suitable breeding and over-wintering habitat by the draining of some old road ruts and by the removal of leaf litter during trail construction. Direct mortality of individuals could occur when ORV riders run through the water-filled road ruts, crushing eggs and tadpoles and trampling adults during their migration and foraging activities. These losses will occur to some extent even when mitigation measures are in place.

Sedimentation or erosion of soil from the connector trail could have adverse impacts to the important vernal pools that form during the spring in the floodplain forest adjacent to the abandoned railroad bed by

suffocation of eggs and larvae. Most of this potential impact is mitigated by sediment barriers during construction and signage to prevent riders from leaving the new trail to play in the pools.

The New Straitsville parking area is located on a ridge where a small population of northern fence lizards is known to occur. The removal of the large boulder pile on the edge of the existing parking lot would eliminate them from this particular area. It is not proposed to disturb this rock pile during construction, so no impact should occur.

#### ***Effects of the Connector Trail (C)***

The implementation of this alternative could lead to direct impacts to amphibians and reptiles by the removal of leaf litter during trail construction. Direct mortality of individuals could occur by ORV riders by the trampling of adults during their migration and foraging activities.

Sedimentation or erosion of soil from the connector trail could have adverse impacts to the important vernal pools that form during the spring in the floodplain forest adjacent to the abandoned railroad bed by suffocation of eggs and larvae. Mitigation measures that stop the movement of soil during construction and discourage the use of the pools will prevent most of these impacts. The parking area is located on a ridge where a small population of northern fence lizards is known to occur. The removal of the large boulder pile on the edge of the existing parking lot would eliminate them from this particular area. It is not proposed to disturb this rock pile during construction, so no impact should occur.

#### ***Effects of the Bridge over Monday Creek (D, E)***

The effects of implementing this alternative would be the same as those of Alternative B, except a bridge would be built to span Monday Creek so riders would not be walking or riding on Dawley Road (T-28) to cross the creek.

The bridge has the potential to remove riparian habitat. However, in this case a significant path through the riparian area has already been cleared and is mowed on a regular basis as it is in the right-of-way for Dawley Road (T-28) and for the power line. During construction there may be the potential to deliver some sediment into Monday Creek. Mitigation measures to control sediment during construction and signage placed after construction to discourage riders from using the vernal pools as a play area would prevent most impacts to the riparian area.

***Alternative E: Connector Trail plus Monday Creek Bridge***

This alternative is the same as Alternative C but includes a bridge over Monday Creek. Effects to amphibians and reptiles would be the same as discussed in Alternative C and D.

***Effects of the Parking Lot Expansion***

This portion of the proposed action is the only activity removing any significant number of trees. The US Fish and Wildlife Service (correspondence dated 4/23/1999) concurred with the Forest Service biologist's evaluation that the proposed construction would not adversely impact the Indiana bat and the American burying beetle if trees are removed between September 15 and April 15. It would also not impact the cerulean warbler since all clearing activity is scheduled to occur outside the nesting period and the amount of nesting habitat to be removed is minimal.

Effects on Management Indicator Species are listed later in this chapter.

**A.4 Cumulative Effects from Past, Present and Future Activities**

Since most of the roads in this project area have existed for nearly 100 years for mineral extraction, the baseline is a high level of disturbance to the forest floor in the area. No major habitat alterations would occur

except where smaller trees are to be removed within the connector trail and parking lot expansion. Both of these areas are surrounded by mature forests that provide the habitat required for retention according to the Biological Opinion.

**B. 1 Soil and Water Issues**

**Issue: Cumulative effects of trail construction and use may impact aquatic communities.**

The Forest Service was requested to consider the impact that the proposed action would have on population trends of exotic or introduced species relative to native fisheries in the project area and to address cumulative impacts on aquatic communities, including fisheries. Concern was also expressed about the impact of potentially decreased water quality due to soil erosion from increasing ORV use.

**Issue: Adding miles to the trail would increase erosion because our maintenance is inadequate.**

***Existing Condition***

The project area is located in lower Little Monday Creek, at its confluence with Monday Creek. Several aquatic resources are found in the project area. A small fishing pond, created by impounding an intermittent stream, is located in the Camp Ohio property on private land.

The project area includes some floodplain forest along Little Monday and Monday Creeks. An old railroad grade traverses the floodplain along Monday Creek, affecting the hydrology over time and enhancing the wetland habitat.

Perennial streams offer the greatest amount of habitat for aquatic organisms, but intermittent streams like the one in the project area would provide habitat for some immature aquatic insects and various invertebrates, and semi-aquatic vertebrates.

These animals burrow in amongst the rocks and organic debris.

The aquatic systems in the project area have been impacted by past and present land uses. Sediment has been released into the streams from past mining operations, construction and presence of roads (oil and gas access roads, campground road, state-county-township transportation systems), and user-made ORV trails. Some erosion occurs naturally from stream cutting and wildlife trails.

Monday Creek is impacted by historic mining in the watershed, which has contributed sediment and acid mine drainage (AMD) to streams in the watershed. Ohio EPA's 305(b) list notes that the entire 27-mile length of Monday Creek does not attain a habitat use designation due to low pH from deep mine drainage. Monday Creek is listed as a Limited Resource Water (Monday Creek 1999) based on severe biological and chemical degradation due to AMD from extensive abandoned mine lands in the watershed. Extensive sampling in the lower reaches of Monday Creek reflect severe acid mine drainage impacts. Only eight to ten invertebrate taxa survive in each segment, and with few exceptions, their abundance is extremely low (Monday Creek 1999).

Based on Ohio EPA's Non-point Source Assessment, Monday Creek is affected by waste water, subsurface and surface coal mining, and oil and gas production. In the 1980's, the state's role in the management of Monday Creek was to prevent immediate health or safety hazards, or "nuisance prevention" (Monday Creek 1999).

Little Monday Creek (LMC) has seen fewer impacts from mining, but is heavily impacted by sediment. Ohio EPA lists LMC as Warm Water Habitat with siltation and acid mine drainage the main causes of impairment. The Invertebrate Community Index of 38 at river mile 0.1 near the confluence of Little Monday Creek with Monday Creek exceeded the Warm Water

Habitat criterion. Invertebrate communities at the mouth are diverse and include numerous, relatively sensitive taxa not typically associated with mine runoff (Monday Creek 1999). Little Monday Creek offers refugia for a small number of aquatic species.

Dispersal of fish occurs up and down the Monday Creek corridor during high flows that dilute the acidic water. This is known because fish have been observed in wetlands along Monday Creek and from sampling done by Ohio EPA. The intermittent stream flowing through the project area is not suitable for supporting fish. It would offer habitat for some invertebrates and semi-aquatic vertebrates. There are no known rare aquatic species in the project area.

Monday Creek has a marked influence on the Hocking River. Water quality is strongly influenced by acid mine drainage. Alkalinity in the main stem of Monday Creek and the Hocking River is adequate to buffer acidic conditions, but mine drainage parameters remain elevated downstream to Athens. In addition, large amounts of sediment accumulate in the Hocking River downstream from Monday Creek. Since the Hocking River receives 10% of its water from Monday Creek, it can be assumed that it also receives a relative proportion of the Monday Creek sediment load.

The existing roads are in considerable need of improvement. Some serious erosion problems associated with numerous culvert outfalls would be addressed during reconstruction. People have created many ORV trails in the project area that are not part of the designated trail system. These trails cross ephemeral and intermittent streams as well as floodplain forest. Soil erosion is occurring because of the trails and sediment is being released into stream systems.

The Forest has increased the funds spent on maintaining trails in order to provide a safer experience and to decrease resource damage.

Hand maintenance contracts have been implemented to supplement machine maintenance, primarily to remove trail blockages that increase off-trail use. Access roads that allow equipment to reach the trails have been re-constructed, allowing for additional equipment maintenance on previously inaccessible sections.

The project area for this trail extension (850 acres) represents only a fraction of the total Monday Creek watershed area (74,000 acres).

#### ***Aquatic Inventories (baseline for soil and water issues)***

Ohio EPA regularly inventories Ohio streams. During 1995 sampling, Little Monday Creek had 16 different fish species and a total of 1,368 individuals counted.

Monday Creek had only three green sunfish at RM 23.40 (above project site) during 1997 sampling. Creek chub and bluegill sunfish were also present at River Mile 16.10 below project site, for a total of 24 individuals. The number of species increases north of the project area near the Paines' Crossing Special Area, then drastically decreases near Buchtel where several significant sources of mine drainage enter the main stem.

### **B. 2 Mitigation Measures for Soil and Water**

Mitigation measures for all action alternatives relating to soil and water can be found in Table 2-3 in Chapter 2. These mitigations are construction standards which are applied to all new ORV trail construction. The measures shown in the Table 2-3 have been selected because they apply to the conditions found in the project area such as replacement culverts, poor drainage, and trails on side slopes that cross ephemeral drainages.

### **B. 3 Environmental Effects of Alternatives on Soil and Water**

#### ***Effects of No Action (A)***

No miles of trail would be added to the Monday Creek ORV system, and no bridge construction would occur on Monday Creek. No sediment would be input into the streams as a result of the construction and use of any designated trail system. Natural sources of erosion from in-stream sources would continue, old sediments would continue to move through the streams, and erosion from user-developed trails, oil and gas access roads, and local roads would continue. There would be no cumulative effects of erosion from additional designated trail (Ewing 1997).

Selection of the no action alternative would result in a continuation of the management situation as it is now. Maintenance efforts on existing designated trails would continue to increase, but the Forest would not move toward its desired future condition of 250 miles of trail.

The poorly maintained and rarely monitored roads in Unit 2 would likely continue in poor condition. These temporary roads may not be a high priority to be added to the forest road system if they are not also designated as trails.

The illegal, dangerous use of user developed trails, forest, county and state roads and bridges, would continue to provide a high need for law enforcement. The number of miles of designated ORV trails on the District would remain the same if the no action alternative were selected. The number of miles of ORV trail to be maintained would not increase.

If the no action alternative is selected, the trailhead at New Straitsville would not be expanded and the visual quality of the area would not change.

***Effects of Alt B: Loop and Connector Trails, no Monday Creek Bridge***

Mitigation measures prescribed for all the action alternatives are the current standards for constructing high standard, long-lasting trails. This project is designed to reduce existing sources of erosion and minimize erosion from any new sources. Utilizing existing roadbeds and hardening their surfaces with crushed stone would minimize new sources of erosion and stream sedimentation. More trail use by ORVs can be sustained with hardened surfaces.

Re-vegetating disturbed soils and installing optimal drainage on the trail tread, grades and alignment would effectively minimize delivery of sediment to streams and any potential risk of triggering a slope failure without compromising user safety. No change in ambient biological, chemical or physical attributes of existing hydrologic balance or water quality is anticipated (Chalfant 2000).

New sediment from construction or re-construction can pass down the ephemeral systems and into the intermittent system and settle over stream substrates in the intermittent stream. Loosened sediment would likely settle out in the basin of a recently drained fishing pond on private land. Sediment deposition in the intermittent stream could displace some organisms for a short period of time if it covered the rocky areas (Ewing 1997).

Sediment deposition should have no effect on pond-dwelling organisms since most pond substrate dwellers are adapted to living in fine sediment. Suspended sediment could create temporary turbid conditions in the intermittent stream and ponds. Aquatic organisms can tolerate turbidity for short periods of time, as commonly occurs during rain events (Ewing 1997).

The potential effect of this alternative on water quality in the affected watersheds is expected to be within the range of natural processes. On implementation of the

proposed action, water quality and the aquatic ecosystems of Little Monday Creek, Monday Creek, and affected tributaries of these respective watersheds should be improved. In addition, closing and rehabilitating four miles of user-developed trails would reduce the loss of soil in three small tributaries.

***Effects of the Connector Trail (C)***

The connector trail would cross one ephemeral and one intermittent stream adjacent to Camp Ohio. New construction east of State Route 595 would be located at the extreme outer edge of the floodplain forest where past disturbance has occurred for a railroad grade and a utility right-of-way. There may be some sediment input into the ephemeral and intermittent streams during the new trail construction, however sediment input would likely be short term in nature. If the stream is protected according to the mitigation for construction near streams (See Table 2-3), there should be minimal sediment input to Monday Creek. Re-vegetation of disturbed soils in the floodplain would decrease the loss of soil if a high water event occurs after construction is complete.

Sediment can cause adverse effects to aquatic habitats and organisms if released in large quantities or released over a long period of time. Sediment can settle out onto substrates and reduce habitat availability for aquatic organisms. Suspended sediment can result in turbid water conditions (Ewing 1997).

Alternative C would only increase the designated ORV trail system approximately 2.1 miles, a shorter increase in available trails than Alternatives B and D, and a smaller increase in trails to maintain. Less construction would logically lead to less sediment loss during construction and during trail use.

***Effects of Alternative D: Proposed Action: Adding a Bridge over Monday Creek to Alternative B***

The proposed action is to add a bridge to alternative B. Disturbance occurring at the bridge construction site should result in little sediment input into Monday Creek. The channel section at this location is well defined, has a flat grade, a straight alignment, fairly stable banks, stable approaches either side of the crossing, and a manageable width for a trail bridge without intermediate supports. Some short-term increase in sedimentation of Monday Creek would likely occur during construction of abutments/bridge footers and approaches. Sediment that does enter Monday Creek would be flushed downstream and would likely settle out onto point bars or onto the floodplain during floods. There would be an indiscernable effect to aquatic organisms since (1) water quality is poor and few organisms reside in Monday creek, and (2) Monday Creek carries a large amount of sediment and a small input from the bridge site would have little change to the existing sediment load it carries.

By maintaining the existing channel profile or cross-section, and providing sufficient elevation of the trail bridge to allow passage of flood flows, stream flows and floating debris would rarely be obstructed to any degree (Chalfant 2000).

***Effect of Alternative E: Connector Trail plus Monday Creek Bridge***

The impacts on water quality from this alternative include the combined effects of Alternative C, construction of the connector trail, and construction of the Monday Creek bridge as described in Alternative D. The loop trail would not be built at this time.

**B. 4 Cumulative Effects of Action Alternatives**

The aquatic systems in the project area have been impacted by past land uses. Sediment has been released into the streams from past

mining operations, farming, construction, and presence of lease roads, campground roads, and local transportation systems. Illegal use on most of the existing roads in the area contributes to erosion. Some erosion occurs naturally from things such as stream cutting or wildlife trails.

Sediment would likely continue to be released into streams naturally, and from farming, public transportation systems and utility access roads located near the streams. The Forest would continue rehabilitating many of the user-made trails in the future, thereby reducing the number of ephemeral and intermittent stream crossing in the long run. The cumulative effects of this proposed action on aquatic habitats and organisms would be minimal with the implementation of mitigation measures designed to reduce sediment.

Since the parking lot is located on a ridge top site with no dissecting streams, there should be no direct or indirect impact from sedimentation and no cumulative effects. It is always prudent to protect the downslope side of the construction site with a fabric barrier in the event of a significant rainfall before the site is rocked and seeded.

**C. 1 Recreation Issues**

***Issue: Forest Service is establishing a precedent by building a trail to a private campground.***

Commentors expressed concern that a private campground owner would benefit from the new trail.

Other recreation issues include concerns about rider safety while accessing the designated trail and the Forest Service' ability to protect resources while maintaining a large trail system.

***Existing Condition***

There are presently 75 miles of designated ORV trail on the Athens District. Athens also has many miles of user-developed

illegal trails. The riders currently using the illegal trails around Camp Ohio utilize county and state roads to reach the designated trail. This is a highly dangerous practice and a public safety issue due to poor sight distance on the state highway, the 55 mph speed limit, and occasionally intense ORV traffic.

Private campgrounds offer services to trail users that are not available from facilities on the Wayne National Forest. The designated trail system currently provides legal access to the Williams campground (see alternative maps) on the east side of State Route 595. Camp Ohio has served as a base camp for ORV riders for approximately 20 years.

It is Forest Service direction not to compete with services offered by private individuals. Dispersed camping is permitted on the National Forest and primitive restroom facilities are provided at most trailheads. Wayne National Forest has no plans to develop a campground with access to the ORV trails. Budget and staffing limits the amount of construction and maintenance of additional recreation facilities that is possible at this time.

As other private campgrounds develop, opportunities would be analyzed to explore legal access to the designated trail system. No other access needs are known at this time.

## **C. 2 Environmental Effects of Alternatives on Recreation**

### ***Effects of No Action Alternative***

No action would result in the continuation of the situation as it is now with legal access to only one of two private campgrounds on the north end of the trail system. The cumulative effect of an incomplete trail system that doesn't provide access to services is that the illegal, dangerous use of user-developed trails and county and state roads and bridges would continue to create a safety hazard for riders and a high need for law enforcement.

### ***Effects of the Connector Trail (C)***

This alternative is the portion of the proposed action which addresses the need for legal access to the Camp Ohio facility. Construction of the connector trail would make it more attractive to the riders to use the connector trail rather than ride illegal trails or the highway.

Construction of the connector trail without building the bridge over Monday Creek parallel to County Road 28 would still require riders to cross Monday Creek on the county road, perpetuating an unsafe condition.

This section of trail would be available to all users. Developing this trail without the loop trail may result in additional illegal use of the ridge-top road system not presently designated as trail. By providing safe, legal access, the construction of the connector trail greatly reduces the likelihood that riders would use county or state roads.

The cumulative effect of adding this section of trail is that approximately two more miles is added to the existing trail, slightly increasing maintenance needs. There is no additional law enforcement burden since law enforcement is already active in the area.

### ***Effects of the Loop Trail (Alt B)***

As access to legal trails around Camp Ohio becomes available, use would spread into that area from the currently designated trails. The increased use in this area would be safer and more regulated.

Constructing the loop trails and connector trail without building the bridge over Monday Creek parallel to County Road 28 would require riders to continue using the County Road bridge. Selection of this alternative would continue the dangerous situation of ORVs sharing a bridge with other road vehicles and maintain a higher than normal need for the presence of law enforcement officers.

The cumulative effect of adding the loop trail to the designated trail system is the addition of approximately 4 miles to the trail maintenance program – including surface maintenance and signage. The increased use in this area would be safer and more regulated. The increased trail mileage may result in an increase in the demand for parking on the north end of the trail.

There would be little visual impact from the proposed alternative including both the connector and the loop trails. New trail construction would be noticeable until newly exposed earth has re-vegetated or weathered.

#### ***Additional Impact of Monday Creek Bridge Construction in Proposed Action***

By providing safe, legal access, the construction of the connector trail greatly reduces the likelihood that riders would use county or state roads, creating frequent law enforcement situations. Construction of the proposed trail bridges would eliminate ORV use on county road bridges, reducing a dangerous situation for both riders and full-size vehicles.

The new trail bridges would blend with the many existing road bridges as soon as the exposed soil of new construction re-vegetates or weathers.

#### ***Effects of the Parking Lot Addition (All action alternatives)***

The New Straitsville trailhead parking lot is often over-flowing on weekends when the number of trail riders is highest. Trail users often come to the National Forest in groups and 2-8 vehicles would camp/park in one area. This parking lot only conveniently accommodates 4-6 vehicles at one time, meaning many users are left with no alternative parking area.

Development of additional trails on the north end of the Athens unit would increase the need for parking space at trailheads. The trailhead nearest to Unit 2 of the ORV planning area is the New Straitsville

trailhead. The proposed action would increase the New Straitsville trailhead by 10 spaces.

The visual impact of the new parking lot is minimal since this is an addition to an existing parking lot that is not visible from State Highway 595.

### **C. 4 Cumulative Effects of Past, Present, and Future Activities**

The cumulative effect of mineral development activity in the area over 100 years has resulted in numerous inactive and active road grades attractive to off-road vehicle riders. Some of these roads present reasonable opportunity for legal trail development. In a region where resource extraction is no longer a means of economic subsistence, building on the recreational opportunities is a viable substitute.

There are 111 miles of designated trails on the Wayne National Forest. Sales of ORV permits have exceeded 10,000 per year. Funding, equipment and personnel limits continue to restrict trail maintenance opportunities. Alternatives B through E add approximately two to six miles of designated trail and rehabilitate several miles of user-developed trail. Currently the only plans existing to construct more designated trails are minor trail re-locations for safety purposes. The Wayne National Forest is committed to managing a sustainable trail system for this growing sport.

Any trail constructed or re-constructed in this project would be constructed to standard and should require minimal maintenance for 3-5 years. The Athens District has increased its emphasis on maintenance of all trails.

The development of private campgrounds in the vicinity of the ORV trail occurred prior to designation of the trail in 1988. Manual direction is for Forest Service facilities not to compete with private enterprise. Access to any private campground serving the public recreating on National Forest lands

would be explored. National Forest recreation should be seen as both an opportunity to explore the natural environment, and as an economic opportunity for local communities.

The proposed actions would make small, temporary changes in the visual appearance left by past actions. No cumulative effects should occur.

### **D. 1 Botany Issues**

*Issue No specific botany issues were considered for analysis, though the general impact of trail construction was considered by the Forest Botanist*

#### **Existing condition**

A species list for the project area can be found in the project file. Descriptions of the forest communities can be found in Existing Condition for wildlife.

### **D. 2 Mitigations for Botany**

It is recommended that any butternut or chestnut found in the project area not be cut in order to protect any viable individuals of these species. None have been found during surveys for this project.

### **D. 3 Environmental Consequences of All Alternatives**

#### **Impact of All Action Alternatives**

Off-road vehicle trails displace leaf litter, reduce soil porosity, reduce root penetration and prevent plant growth. The designation of approximately 4 miles of trail on existing roads would not cause any new loss of vegetative productivity. Another 2.1 miles would be newly constructed would be lost to productivity for the life of the trail, but can be reclaimed should the trails ever be closed. The signing and designating of this trail is likely to reduce the amount of new user-developed trails in the immediate area, thereby generally having a positive impact on vegetation.

Due to past use of these trails and old roads, the impact on native plant communities

would not be significant enough to cause any decrease in the species richness of the area. Past disturbance negates any future disturbance since all of the trails have been used as ORV trail and the damage has been done. Compliance with soil and water mitigation standards would prevent any additional erosion and soil compaction.

The construction of a bridge across Monday Creek (Alts D and E) would occur in the road right-of-way in an area that is currently kept in grassy vegetation for the existing power line. Less than .5 acres would be lost to construction of the bridge abutments.

The New Straitsville parking lot expansion is occurring on an old field that was used by townspeople for picnics and as a ballfield many years ago. It was a pine stand and is now in hardwood regeneration following removal of the pine during a pine beetle outbreak. The conversion of an additional acre of this forest type to a parking lot in an area already fragmented by farms, homes, and resource extraction activity is not likely to negatively affect the species viability or range of species richness of herbaceous or woody plant species in the area. Very few projects on national forest change land cover away from forested land. (Boyle 1997).

#### **Affect on Special Areas**

The Paine's Crossing Special Area is approximately .5 miles northeast of the project area. The implementation of any of the action alternatives is not likely to affect the Paine's Crossing Special area, providing that law enforcement continues to monitor illegal trail use in the area. Illegal use along the Paine's railroad grade was successfully stopped in the mid-1990's.

#### **Threatened & Endangered Species**

Surveys have been completed along the trail route for forest species of concern, regional sensitive species, and federally listed species. The US Fish and Wildlife Service has concurred that this proposed action would not likely adversely affect the small

whorled pogonia and would not effect any other federally listed plant species.

#### **D. 4 Cumulative Effects**

Since there is no adverse effect on the pogonia and no effect on any other federally listed plant species, there would be no cumulative effect on the same.

#### **E. Forest Plan Implementation**

##### ***Management Indicator Species***

Direction for managing Management Indicator Species (MIS) is found in 36 CFR 219.19. This regulation states “population trends of the management indicator species would be monitored and relationships to habitat changes determined. This monitoring would be done in cooperation with state fish and wildlife agencies to the extent practicable.”

The Forest Service Manual provides further direction on MIS (FSM 2620.5). MIS are defined as “plant and animal species, communities, or special habitats selected for emphasis in planning in order to assess the effects of management activities on their populations and the populations of other species with similar habitat needs which they may represent (USDA-FS 1991b, 2620.5).

Analysis of project level effects is used to determine an activity’s contribution to meeting forest-wide objectives for providing for well-distributed, viable populations. Management activity effects are examined in light of the existing habitat conditions, both within and outside of the Forest, and documented population conditions or trends (Andrews 1999).

This direction is repeated in the Wayne Forest Plan, Chapter 4-2 under Forest Management Goals where it states “improve fish habitats and manage wildlife habitats to maintain viable populations of native and desired nonnative species and to maintain and improve habitat of management indicator species”. Appendix B of the

Forest Plan (USFS 1988) identifies species which are suitable for consideration as MIS, species selected as MIS, and how the selected MIS represent all of the vertebrate forms of wildlife on the Wayne. Also notes are species that require special habitats and population trend objectives of MIS. (Wayne Forest Plan B-1)

The process for selection of MIS is detailed in the Wayne Forest Plan B-2. It is recognized that the concept of MIS is imperfect in terms of predicting specific responses to management activities. Species were selected for 8 dry habitat types and 10 wet habitats.

The Project File includes a discussion of each species of wildlife (Andrews 1999) and fish (Ewing 1997) used as MIS, whether habitat occurs in the project area and whether this project would have any impact on the species. Nine birds, two frogs, and three fish were analyzed. Small amounts of habitat occur in the project area for pine warbler, pileated woodpeckers, cerulean warbler, and wood duck (Andrews 1999).

##### **Birds**

###### **Pine Warbler**

Pine warbler occurs in mixed woods where pine dominate in the canopy and the understory is composed of deciduous species. Breeding bird surveys conducted on the Wayne from 1992-1994 recorded very few pine warbler occurrences. No pine warblers were detected on the Athens unit. Because of the small amount of habitat that would be affected by the proposed alternative, there is no affect from the proposed alternative and the no action alternative.

**Pileated woodpecker** nests in extensive mature forests and wooded riparian corridors. Breeding bird surveys in the state show that this bird has increased significantly at 2.4% annually and are much more common in the eastern part of the state. Breeding bird surveys conducted on the Wayne National Forest from 1992-1994

recorded pileated woodpeckers at all thirty transects that were placed in interior hardwood forests.

Because of the small amount of habitat that would be affected by the proposed alternative, there is no effect from the proposed alternative and the no action alternative.

**Cerulean warbler** prefers large tracts of mature deciduous woods. Trend analysis on state data shows that the Ohio population of the cerulean warbler has not changed and detections remain even and constant for a thirty-year period from 1965 to 1995. Breeding bird surveys conducted on the Wayne recorded cerulean warblers at all thirty transects.

Because of the small amount of habitat that would be affected by the proposed alternative, there is no affect from the proposed alternative and the no action alternative.

**Ruffed Grouse (Early Hardwoods)** – Ruffed grouse can be found in dense regeneration and in dense understories of second growth deciduous forests. Understories of tangled vines, shrubs and greenbriers improve the chances of occurrence of this species even into mature forests (Peterjohn and Rice 1991). Breeding records of the ruffed grouse show that they occur almost exclusively in southeastern and northeastern Ohio. During the Ohio breeding bird survey approximately 73.5% of breeding bird data blocks detecting the ruffed grouse occurred in the unglaciated plateau (Peterjohn and Rice 1991).

The habitat for this bird would not be affected under any of the alternatives.

**White-eyed Vireo (Late Succession)** – White-eyed vireos prefer shrub-dominated areas such as found in abandoned fields where woody vegetation is interspersed with patches of herbaceous cover. They also

occur along brushy fencerows, stream corridors and woodland edges and openings (Peterjohn and Rice 1996). In 1995, a breeding bird inventory was undertaken in 39 stands, ranging in age from 5 to 21 years of age, on all three units of the National Forest. Eighty-five detections of White-eyed vireos were made in 21 of these stands. The majority of detections were made on the Ironton Unit.

The habitat for this bird would not be affected under any of the alternatives.

**Common Yellowthroat (Mid Succession)** – The common yellowthroat can be found around the shrubby margins of various aquatic habitats such as streams, ponds and ditches. They also occur in brushy, fields, fallow fields and fencerows and open young woodlots (Peterjohn 1989). The unglaciated plateau was the second most abundant region in the state (27.8%) reporting this species (Peterson and Rice 1991). Earnst and Andres (1996) report the common yellowthroat as being more than twice as common in eastern Ohio than the western part of the state.

The habitat for this bird would not be affected under any of the alternatives.

#### **Wood Duck**

Wood duck breeds in wooded riparian areas and swamps. They nest in cavities that are located adjacent to or over water. The Ohio Division of Wildlife wood duck coordinator feels that this species' numbers are stable, if not increasing, in the state.

Because of the small amount of habitat that would be affected by the proposed alternative, there is no affect from the proposed alternative and the no action alternative.

**Field Sparrow (Early Succession)** – Field sparrows are found in weedy, herbaceous grassland type habitat. They are also found in forest edges, fencerows and cutover hillsides where shrubs and brushy tangles are scattered with small saplings (Peterjohn

and Rice 1991). While field sparrows are very common, an annual decline reported by Earnst and Andres (1996) is thought to be a result of habitat loss due to intensive agricultural practices and to maturation of the eastern Ohio forests. Field sparrows have only been sampled in stands on the Ironton Unit.

The habitat for this bird would not be affected under any of the alternatives.

**Eastern Bluebird (Park like)** - The eastern bluebird prefers open habitat, such as grassy fields, right-of-ways, and park like areas with scattered trees, and fencerows. Bluebirds are cavity or box nesters with nesting activities starting in late-March (Peterjohn and Rice 1995). Earnst and Andres (1996) say that the Eastern bluebird is common and widely distributed in the state and that population levels appear to be stable after a decline in the population due to the severe winters of 1976-1978. Bluebird boxes are erected and maintained on appropriate habitat on the Athens.

The habitat for this bird would not be affected under any of the alternatives.

**Virginia Rail (Marsh)** - Virginia rails favor 5-10 acre cattail dominated marshes or wet meadows (Peterjohn and Rice 1991). They are considered uncommon to rare within the state and generally do not occur on the unglaciated plateau.

The habitat for this bird would not be affected under any of the alternatives.

## Frogs

### Wood Frog (Vernal Ponds in Hardwoods)

Numerous sites on the Forest have been identified as wood frog breeding habitat areas. Frog and toad calling surveys have detected wood frogs in neighboring Greendale Wetland and other vernal wet areas within the Monday Creek ORV area. Habitat for the wood frog does exist adjacent to the proposed trail between State

Route 595 and Monday Creek (along Township Road 28).

The habitat for this frog would not be affected under any of the alternatives if the mitigation measures are successful in keeping trail riders on the designated trails.

### Western Chorus Frog (Fishless Ponds in Fields)

The western chorus frog calls from dense vegetation found in wet open fields and prairies and is widely distributed within the state. The habitat for this frog would not be affected under any of the alternatives.

## Fish

Eight fish appear on the Wayne MIS List: bluegill, southern redbelly dace, redbfin shiner, blackside darter, rainbow darter, golden redhorse, sand shiner, and banded darter. Due to severe acid mine drainage (AMD) problems throughout the watershed, only three of the MIS have been documented in Little Monday Creek and Monday Creek during their monitoring programs: bluegill, redbfin shiner, and redbelly dace.

Habitat for bluegill is present in both Little Monday and Monday Creeks. Bluegill numbers are higher in Little Monday Creek, but that is expected since that system is the least AMD-affected in the watershed.

Only two redbfin shiners were collected near the mouth of Little Monday Creek in a 1995 monitoring effort. No redbfin shiners were found in Monday Creek.

Southern redbelly dace represent those species that prefer small, headwater streams. A total of 44 individuals were collected from Little Monday Creek in 1995.

It is expected that sediment would move downstream with flood events, particularly at trail crossings and during construction. However, sediment input into the perennial systems from the actions proposed in Alternative D (encompassing all actions), would be small in comparison to the amount

of sediment being input into Little Monday Creek and Monday Creek from other sources.

With the implementation of mitigation measures designed to reduce sediment input into aquatic systems, the direct, indirect and cumulative effects of this proposed action on aquatic habitats and organisms would be minimal, and there would be no effects to Management Indicator Species (Ewing 2001).

#### *Regional Sensitive Wildlife Species*

Guidance in the Plan (Standards and Guidelines 4-44) recommends that a biological evaluation would be done to review the potential effect on sensitive species. Management objectives would be established in cooperation with ODNR when projects are expected to affect Regional Sensitive Species (RSS).

The list of RSS on the Wayne National Forest has recently undergone a change. Species that are currently on the list and those previous to the change are addressed (Andrews 2002).

Those species having suitable habitat in the project area include black bear, river otter, bobcat, evening bat, Rafinesque big-eared bat, cerulean warbler, timber rattlesnake, Wabash river cruiser, grizzled skipper, Olympia marble, and the regal fritillary.

**Black bears** have been confirmed in Ward Township and unconfirmed reports have been made in Green Township and other places in Perry County. No sighting of **river otters** has ever been reported, to date, from Hocking County. Observations from hunters and hikers have indicated that **bobcats** are moving back into the unglaciated portion of Ohio, an area which includes the Wayne National Forest. The **evening bat** is considered rare in occurrence; the only record is a capture in May 1980 on the Ironton unit.

The **Rafinesque big-eared bat** is very rare and may possibly be accidental in the state.

The most recent confirmed occurrence of the **timber rattlesnake** is approximately three air miles southeast from the project area. The **Wabash river cruiser** was found in Burr Oak State Park in Morgan County in 1982 on a dammed stream reservoir. The **grizzled skipper** has been found on a maintained pipeline corridor over four air miles from the western edge of the project area. The **Olympia marble** is not known to occur on the Athens Unit. Populations of the **regal fritillary** are extremely localized and it is thought to be extirpated from the state.

#### *Impacts to RSS*

It has been determined that, based on information provided for this project, that this project would have no affect on the these Regional Sensitive Species (Andrews 2002).

## **F. Compliance with Existing Laws**

### ***Section 106 National Historic Preservation Act***

As per Section 106 of the National Historic Preservation Act, the Wayne National Forest must take into account the effect of the Monday Creek ORV Project on heritage resources prior to any undertaking. This law requires the Forest to identify and evaluate all heritage sites within the project boundaries and to mitigate any adverse effects to those which are considered to be significant. Determinations of significance are made through coordination with the State Historic Preservation Office (SHPO).

The project corridor has been inventoried for heritage resources, and Section 106 review by the SHPO has identified several potentially significant sites in the project area. The only portion of the project area which has not been investigated is where new bridge construction is proposed across Monday Creek. Field inspection revealed that this section has been significantly

disturbed by power line, road, and bridge construction (township). The Forest Archaeologist has determined that no historic properties would be affected by the proposed new bridge construction within the area of previous disturbance. Mitigation for other sections is complete avoidance of identified sites and an appropriate buffer around each site.

Since all proposed actions completely avoid all heritage sites, the proposed actions project would be in compliance with Section 106.

### ***Endangered Species Act***

Compliance with the Endangered Species Act means that the proposed project would not jeopardize or adversely modify critical habitat of federally-listed species, would insure the proposed actions do not contribute to loss of viability or trend toward listing wildlife species under the ESA, and would provide a process where the above-mentioned species receive full consideration in the decision making process.

Nesting and roosting habitat for the **bald eagle** does not occur within the project area and all current nesting attempts have been outside of the Wayne National Forest proclamation boundary (Andrews 2002). At this time, the USFWS suggests that bald eagles occurring on the WNF are probably migrating through or only wintering there (Boyer 2001). There is no incidental take anticipated for this species.

The presence of the **Indiana bat** was confirmed on the forest in the summer of 1997. It is assumed that the Indiana bat does occur within the project boundaries. Identified roost trees have all been dead trees with large slabs of flaking bark existing within an opening in the canopy. The closest known abandoned mine openings in this general area occur near the parking lot expansion area. Unknown species of bats are documented as occurring in several of these openings during swarming season.

On-site evaluations determined that no major alteration in habitat is proposed in the loop trail portion of the proposed project since most of the proposed trail already exists in the form of user-developed trails and lease right access roads. However, there are sections of the connector trail and the expansion of the parking lot where tree removal would be necessary. The trees to be removed within the connector trail are mainly 5" diameter short-leaf pine.

The habitat within the parking lot expansion is a 22-year old hardwood stand including 2-4" red maple with some 9" dbh black locust, ash and basswood and scattered tulip trees from 14-17" dbh. One snag with peeling bark was found.

Adverse effects to the Indiana bat from this project could occur due to the removal of potential roost trees. Direct impacts to the Indiana bat may result in direct mortality or injury to individuals or small groups of roosting bats during the felling of trees that may harbor undetected roosts (Knapp 2002).

To be exempt from the prohibitions of Section 9 of the Endangered Species Act, the WNF must comply with terms and conditions of the Biological Opinion from the US Fish and Wildlife Service for any species that may be affected by the proposed project (Boyer 2001). Due to the potential loss of suitable Indiana bat roosting habitat in the proposed project area, this evaluation is tiered to Terms and Conditions 4,5,6, and 8 for that species in the programmatic Biologic Opinion.

Both of these areas are surrounded by mature forests, which provide the number, size and species of trees required to meet term and condition 4 of the Biological Opinion.

### ***Mitigation for Endangered Species***

In keeping with Term and Condition 5 in the BO, all shagbark and shellbark hickory trees over 6" dbh and all live trees of any species

over 6" dbh with split trunks, broken tops, signs of a cavity, or hollowed out trunk would be retained during the non-hibernation period from April 15 to September 15. No hickories would be removed during trail construction (see Chapter 2 for description of alternatives with mitigations for wildlife).

With the incorporation of mitigation measures, as spelled out in Chapter 2 and provided on pages 36-40 of the Programmatic Biologic Opinion (Boyer 2001), the proposed trail project is not likely to adversely affect or jeopardize the continued existence of the Indiana bat (Knapp 2002). Implementation of the terms and conditions associated with the reasonable and prudent measures would minimize adverse effects to the Indiana bat by maintaining suitable Indiana bat roosting and foraging habitat and protecting Indiana bats from the potential effects of tree removal activities.

The **American burying beetle** (ABB) was last reported in Hocking County in 1974. Extensive surveys have been conducted in Hocking County prior to a re-introduction in 1997 and no beetles were located. No wild populations of ABBs are currently known to exist in the state. The ABB was re-introduced into Athens, Hocking and neighboring Vinton counties in 1998. The proposed project site lies outside the 10-mile radius around the re-introduction sites. This project is therefore in compliance with the Endangered Species Act.

Due to the shallowness of the dirt removal and the fact that no wild populations of the ABB have been found, it has been determined that the proposed trail project would have no effect on the American burying beetle (ABB).

#### ***Cumulative Impacts to T&E Species***

The cumulative impact is based on direct and indirect impacts to species as reviewed in the biological evaluations. Considering the baseline status of the bat and the effects

of the action (Knapp 2002), and since determinations of no effect and no adverse impact have been found, there should be no additional cumulative effects from this project.

#### ***Migratory Bird Treaty Act***

The impact on migratory birds was considered during the evaluation of habitat and impact to those migratory birds on the WNF Management Indicator Species' list. Those birds which inhabit the canopy should not be affected because there is no new fragmentation of the canopy (i.e. cerulean warbler, common yellowthroat). Other migratory birds on the list are not located in the type forest as found in the project area (white-eyed vireo, pine warbler, eastern bluebird, Virginia rail). No new canopy fragmentation would occur in this project, so no new impact to canopy dwellers is expected.

#### ***Clean Air Act***

Construction, re-construction and rider use of the proposed trail conforms to the Clean Air Act requirements. Neither Ohio EPA, regulatory authority for the Clean Air Act in Ohio, nor US EPA have standards for off-highway vehicle emissions. Standards are being proposed by US EPA, but are not yet in federal regulation. There are no non-attainment zones for ozone within or near the project area, per communication with Ohio EPA. There are no Class I areas on the Wayne National Forest in which impairment of air quality is prevented. The closest Class I Area is the Dolly Sods Wilderness Area on the Monongahela National Forest in West Virginia, approximately 200 miles east of the Monday Creek ORV Area. Maps of Ohio's monitoring stations and air quality for September 30, 2001, are located on the Ohio EPA website.

#### ***Ohio House Bill 611***

On November 17, 1998, Ohio House Bill 611 passed. This bill allows all purpose vehicles and off-highway motorcycles (both are included in the Forest Service term off road vehicles) to operate year round; to

cross highways where safe to do so; to ride on county or township roads (with the jurisdictional authority's permission); to ride off of and alongside roads for limited distances; and to ride on the shoulder of a road where safe to do so (Ohio Legislative Service Commission 1999).

would not adversely affect the safety and welfare of the public nor increase potential flood damages or flood heights. (Stachler 2002)

Alternative D, the preferred alternative, includes the approximately 6 miles of trail and the construction of a new bridge over Monday Creek because, at this time, it is not legal to ride on the travel way of a township road, including the bridge surface.

### ***Executive Orders***

This project has been determined to be consistent with Presidential Executive Orders for Protection of Wetlands (E.O. No. 11990), Floodplain Management (E.O. No. 11988), and Use of off-road vehicles on public lands (E.O. No. 11644 as amended by E.O. 11989).

The section of trail to be constructed in the Monday Creek floodplain (100 year recurrence interval), as a result of this proposal, would not increase flood levels. Vegetation manipulation would be minimal across the floodplain/riparian area in view of the fact much of the proposed trail would either be located within the clearing limits of an active utility corridor or on an old abandoned railroad bed. In both cases this would require clearing a pathway through mostly non-woody herbaceous plant materials, not the removal of live trees.

In addition, no fills would be constructed which would affect the efficiency or the capacity of the floodplain to handle flood flows. Therefore, the project is not viewed as being incompatible with the present functions and conditions of the floodplain and the riparian area.

This project is consistent with Federal Regulations (i.e. 36 CFR Parts 219.21(g), 261.13 and .51, and 295) and Forest Service Policy with respect to riparian area and floodplain management. This proposal

## Chapter 4. Agencies Consulted and Persons Involved in Preparation of this Document

### A. Agencies and Organizations Consulted

Ohio Department of Transportation  
US Fish and Wildlife Service  
Ohio Environmental Protection Agency  
Ohio Division of Natural Areas and Preserves  
American Electric Power  
Belden and Blake Corporation  
Northwood Energy Corporation

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