United States Department of Agriculture
Forest Service

Fairview Campground Decommission

Final Environmental Assessment

Big Piney Ranger District, Ozark-St. Francis National Forests, Newton, Pope and Searcy Counties, Arkansas August 2015

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Photo on previous page is a developed campsite at Fairview Campground. Photo courtesy of Sarah Davis, District Biologist, Big Piney Ranger District.

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Chapter I

Purpose and Need for Action

The U.S. Forest Service, Big Piney Ranger District is proposing to decommission the 23 acre Fairview Campground located north of Pelsor, AR. These actions are proposed to be implemented on the Big Piney Ranger District of the Ozark-St. Francis National Forests (OSFNFs).

An environmental assessment (EA) has been prepared to determine whether implementation of decommissioning the Fairview Campground may significantly affect the quality of the human environment and thereby require the preparation of an environmental impact statement (EIS). By preparing this EA, agency policy and direction to comply with the National Environmental Policy Act (NEPA) is being fulfilled. For more details of the proposed action, see the Proposed Action and Alternatives section of this document.

A. Location of Project Area

The project area is located in south-central Newton County, south of the community of Lurton and north of the community of Pelsor along Arkansas State Highway 7. The legal description is Township 13 North, Range 20 West, and Section 34 & 35, Sand Gap Quadrangle.

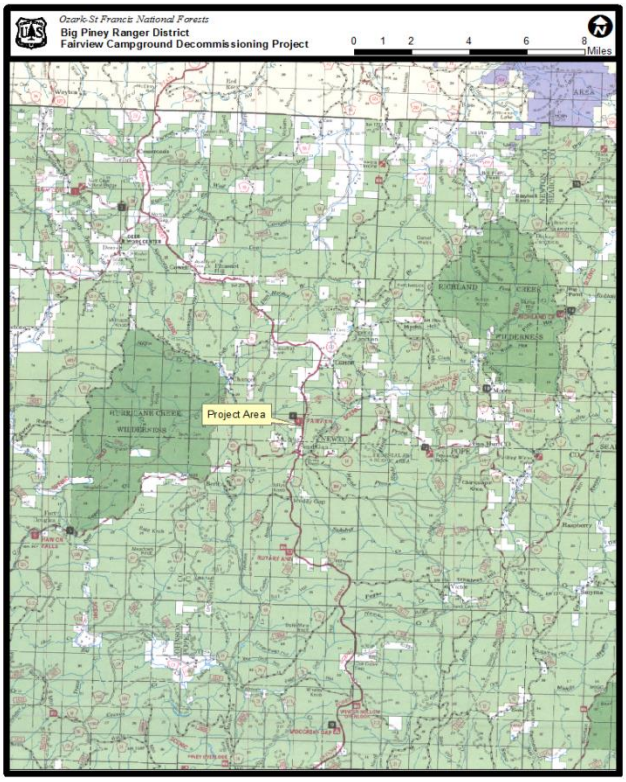

Figure 1

B. Need for the Proposal

The purpose of this proposal is to reduce the number of underutilized recreation areas on National Forests. Recreation in the National Forest System has transitioned to be more streamlined, focusing on maintenance of sites with moderate to high use. The use of Fairview Campground has sharply declined since Rotary Ann Rest Area (6 miles south) was developed in 2006.

1.) Management Areas:

The Revised Land and Management Plan (RLRMP or Forest Plan) for the Ozark-St. Francis National Forests describes Desired Conditions for Management Areas (MAs) and the ecological systems that occur within these MAs. The following describes the applicable desired conditions of the Management Area within this proposed project area:

MA 2C Developed Recreation Areas (RLRMP pages 2-50-2-52):

Emphasis - This MA is managed to provide the public with a variety of recreational opportunities in visually appealing and environmentally healthy settings. Facilities are provided to enhance the quality of the recreational experience and to mitigate damage to the affected ecosystems. These areas also serve as "gateways" to the wide diversity of recreation opportunities on the remainder of the Forests.

Desired Condition – Visitors are able to choose from a wide variety of recreation opportunities in high quality, well-maintained settings.

Priorities – Supply a variety of recreational facilities that are responsive to user demands. Operate developed recreation sites including campsites and picnic areas. Focus investments and improve the cost effectiveness of operating recreational facilities by using one or more of the following techniques where feasible: Decommissioning underused sites, maintaining concessionaire agreements, entering into management partnerships, and investigating other measures.

2.) Other Developmental Forces:

Decommissioning this facility would increase the Big Piney Ranger District's ability to provide better overall recreational facilities for the public at other sites.

RLRMP objectives that support the need of this project:

1) MAOBJ.5 - Reduce the recreation facilities maintenance backlog by approximately 10 percent within 3 to 5 years (RLRMP page 2-52).

C. The Proposed Action (PA):

The PA for this project consists of the following activities:

- Closure of the south loop road.

- Removal of the following amenities:
  - South loop water hydrant including pedestal which has not been functional for several years.
  - Camping amenities.
  - Bathroom facility.
- Relocation of the Fairview bathroom facility and/or placement of a new facility at Moccasin Gap and/or Richland Creek.
- Replacement of the current Fairview Campground sign on Highway 7 with a trail head sign.
- Removal of the kiosk and fee tube.
- Relocation of approximately 0.3 miles to the Ozark Highlands Trail (OHT).
- Construction of a new kiosk and registration box at the trail head parking area.

D. Objective of the Proposed Action

The objective of the Proposed Action is to decommission an underutilized recreational facility resulting in a reduction in the overall management and maintenance of the Big Piney Ranger District's (BPRD) recreational program. This would meet the National Forest System's goal of streamlining by focusing on sites with moderate to high use, the RLRMP's direction for management area 2C, and the BPRD's goal of providing better recreational facilities.

E. Related Documents That Influence the Scope of This Proposed Action

The Final Environmental Impact Statement for the Forest Plan compares and analyzes the impacts of a variety of treatments in the RLRMP (pages 1-18 to 1-49). This EA tiers to the following document: The Revised Land Resource Management Plan and accompanying Environmental Impact Statement for the Ozark-St Francis National Forests (2005).

The RLRMP identifies Forest Wide Standards (pages 3-1 to 3-21) and MA Standards (pages 3-22 to 3-38) that would be applied to all methods of management. This direction is incorporated into this EA's design criteria.

F. Issues Eliminated from Further Study/Not Analyzed as an Alternative

These issues were identified through scoping and are addressed, but are not considered as "issues studied in detail". The following are the reasons for which they were eliminated from further study.

Upgrade and improve the campground – During the initial scoping a response was received proposing that Fairview Campground be improved/upgraded by adding more water spigots, electricity, and a working bathroom with showers. Although this would likely increase the overall use of this area, it was not considered in detail because it doesn't meet the RLRMP's MAOBJ.5 objective to reduce the recreation facilities maintenance backlog by approximately 10 percent within 3 to 5 years (RLRMP page 2-52). In addition, the recreational attraction for this area is the Ozarks Highland Trail (OHT), with the main use being hiking the trail, but because the trail is a cross country trail and not a loop trail most users are just traveling from one trail head to the next. Having improvements of this nature would not be complimentary for this type of visitor.

Jurisdictional Wetlands- Analysis conducted by district personnel has concluded that there are no documented jurisdictional wetlands within or adjacent to the project. If wetlands are encountered during project implementation the implementation would cease and the Forest Hydrologist would be consulted.

Civil Rights and Minority Groups- The proposed actions would impact minority groups in the same manner as all other groups in society. The proposed actions would not violate the civil rights of consumers or minority groups.

G. Decision to Be Made

The District Ranger would select one of the following and determine if the selection would or would not significantly affect the quality of the human environment.

1. Management actions described in the Proposed Action (PA).
2. Decision not to implement any action by selecting Alternative 1 (the No Action Alternative).
3. Management actions described in the PA with some modifications.

H. Noted Changes Between the Draft and Final EA

There were no known noted changes between the draft and final EA.

Chapter II

Alternatives Including the Proposed Action

A. Process Used to Develop the Alternatives

The Interdisciplinary Team (IDT) represents the range of resources across the Forests, such as recreation, timber, wildlife, soils, water, and air. The IDT considered the following elements when they developed the alternatives for this analysis:

- The goals, objectives, and desired future conditions for the project area as outlined in the RLRMP for the Ozark–St. Francis National Forests.
- Comments received from the public, State, and other agencies during the scoping process.
- The laws, regulations, and policies that govern land management on national forests.

B. Alternatives Considered

The Proposed Action and The No Action Alternative were developed for this EA based on IDT meetings and public comments.

The Proposed Action (PA)

The PA for this project consists of the following activities:

- Closure of the south loop road by placing large boulders to restrict access. To accomplish this task, large boulders currently outlining the south loop road would be relocated to block off the south loop road. Once completed the road bed would be seeded and fertilized to prevent erosion.
- Removal of the following amenities includes all rock or concrete pads associated with the improvements. All areas with exposed soil would be seeded and fertilized.
  - South loop water hydrant including pedestal which has not been functional for several years.
  - Camping amenities including but not limited to: Picnic tables, Fire rings, Lantern posts, Trash bins.
- Bathroom facility.Relocation of the Fairview bathroom facility and/or placement of a new facility at Moccasin Gap and/or Richland Creek. The current bathroom facility would be relocated to one of the previously mentioned recreational areas the other recreational area would receive a new facility as part of this proposal. The remaining hole would be filled in and the exposed soil seeded and fertilized. If the bathroom facility cannot be moved or is damaged beyond repair, this proposal includes the placement of two new facilities at the previously mentioned locations.

- Replacement of the current Fairview Campground sign on Highway 7 with a trail head sign.
- Removal of the kiosk and fee tube. After removal all holes would be filled and the exposed soil seeded and fertilized.
- Relocation of approximately 0.3 miles to the Ozark Highlands Trail. The old existing trail would be obliterated and the exposed soil seeded and fertilized.
- Construction of a new kiosk and registration box at the trail head parking area.

Alternative 1: No Action

This recreation area would continue to be operated as in past years.

C. Past, Present and Reasonably Foreseeable Future Actions

Within the project area(s) there are some past (occurred within past three years), present and reasonably foreseeable treatments that are **NOT** part of the Proposed Action **or** any part of the alternatives to the Proposed Action but have occurred or are expected to occur within the foreseeable future. The tables below show the treatments considered in this EA as cumulative effects.

Table showing past present and reasonably foreseeable actions within approximately ½ mile of Richland Creek Campground.

Treatments (On USFS Land)	Acres/ Miles	Year Treated
Bearcat Hollow Phase II Project Understory Thinning (Cane)	60	2015
Future Actions	**Approx. Acres or Miles**	**Approx. Year**
None Known	NA	NA

Table showing past present and reasonably foreseeable actions within approximately ½ mile of Moccasin Gap Campground.

Treatments (On USFS Land)	Acres/ Miles	Year Treated
Moccasin Gap Trails Project Construction of Day use Parking for Equestrian and Day use Parking for Motorized	2	2014
Future Actions	**Approx. Acres or Miles**	**Approx. Year**
High Mountain Project Pine Thin Hardwood Thin Pine Release	 215 45 45	 2016 2016 2017

Table showing past, present and reasonably foreseeable actions within approximately ½ mile of Fairview Campground.

Treatments (On NF Land)	Acres/ Miles	Year Treated
None known	NA	NA
Future Actions	**Approx. Acres**	**Approx. Year**
Fuels Mgt. Project		
Hardwood Release	260	2017
Pine Thin	110	2017
Pine Seedtree	25	2017
Hardwood Thin	25	2017

D. Protective Measures

In order to protect the environment and lessen possible negative impacts, the applicable measures contained in the Forest Wide (FW) Standards of the RLRMP and Management Area (MA) standards for the Ozark-St-Francis National Forests (OSFNF) would be applied to the PA and are incorporated in this EA. Best Management Practices (BMP) would apply as standard protective measures.

Forest Wide and Management Area standards which apply to this proposal;

FW72: Promote and implement current Best Management Practices (BMPs) for forestry as recommended by the Arkansas Forestry Commission to all management activities in order to control non-point source pollution and comply with state water quality standards.

FW79: Use only native or non-persistent nonnative species when seeding temporary openings from soil disturbing activities.

FW105: Projects will be designed to meet the assigned scenic integrity objectives (SIO) as defined.

FW106: Resource management activities will be conducted in a manner that promotes SIO. Exceptions for short periods of time (one growing season or less) may be allowed to achieve important resource management goals on a case-by-case basis under consultation with and approval of the Forest Landscape Architect or the Forest Supervisor.

FW110: In very high or high SIO areas, a landscape architect will be involved in the site selection process and development of plans and specifications for projects. In medium SIO areas, project planning will be coordinated with a landscape architect. In low SIO areas, as long as the objective for the area is met, projects may proceed without the involvement of a landscape architect.

FW111: Whenever proposed projects may affect a recreation trail, consult with the Forest Landscape Architect (or his/her designated representative) to determine how best to minimize impacts on the trail, minimize future vegetation encroachment on the trail and meet the assigned SIO. Retain sufficient overstory vegetation above and immediately adjacent to the trail to reduce opportunities for blackberry vines and other vegetation that impede non-motorized travel to flourish.

FW115 Coordinate management direction with the State Historic Preservation Office, federally recognized tribes, and other appropriate state and federal agencies pursuant to Programmatic Agreement.

Management Area 1.H Scenic Byway Corridors

MA1.H-5 Short-term Scenic Integrity Objectives of rehabilitation and enhancement may be used.

Management Area MA2.A Ozark Highlands Trail

MA2.A-1 The Ozark National Forest designates a corridor at least three chains (198 feet) on either side of the centerline of the trail for its entire length including designated spurs unless topographically impractical.

MA2.A-4 Management activities in the corridor will be to improve or protect the trail, enhance the recreational experience, and provide for visitor safety.

MA2.A-15 Locate and maintain campsites and privies (toilets) where there is a demonstrated need for overnight use.

MA2.A-16 Reconstruct or relocate existing portions of the OHT as needed to enhance the recreation experience; protect threatened, endangered, sensitive, and locally rare species; protect the health of the ecosystem; or protect heritage resources. Such relocations provide a reasonable level of public safety.

MA2.A-18 All management activities will meet or exceed a Scenic Integrity Objective of "high".

Management Area 2.C Developed Recreation Areas

MA2.C-9 Developed sites and concentrated-use areas are inspected annually and high-risk conditions are corrected, mitigated, and identified to the public or the area if closed.

MA2.C-12 Management activities are designed to meet or exceed the assigned Scenic Integrity Objectives

Scenery Management
Page 2-20, RLRMP identifies Priorities for the analysis area as follows:

- Maintain or enhance the visual character of the Forests by using the Scenery Management System (SMS) to achieve scenic integrity objectives.
- Manage landscapes and build elements in order to achieve scenic integrity objectives.
- Promote the planning and improvement of infrastructure along scenic travel routes. Use the best environmental design practices to harmonize changes in the landscape and to advance environmentally sustainable design solutions.

- Restore landscapes to reduce visual effects on nonconforming features.
- Manage scenic restoration to be consistent with other management area objectives.
- Maintain the integrity of the expansive, natural landscapes, and traditional cultural features that provide the distinctive character of places. Maintain the character of key places in order to maintain their valued attributes.

E. Monitoring

1) Monitoring would be conducted to insure that all erosion control measures are put in place and functioning.

2) A review of all known occurrences of proposed, endangered, threatened or sensitive species (PETS) has been conducted. In addition, field surveys have been conducted within the project area. If any new proposed, threatened or endangered species are discovered, the activity would be halted and the District Biologist would be contacted to determine what, if any, consultation with the US Fish and Wildlife service is needed, and what specific measures to implement to avoid any adverse effects.

F. Site Specific Design Criteria

The following are site specific design criteria to minimize impacts created from the Proposed Action's vegetative treatments. The project designs below are specific for the project area:

- If any proposed, endangered, or threatened species are discovered prior to or during implementation, the project would be halted until the potential effects are determined and new criteria are in place if required.
- Follow the Native American Graves Protection Act plan of action for Ozark National Forest. Should human remains be discovered all work would hault; pending consultation with the appropriate Tribes.
- Due to the small size and positive visual impacts resulting from this proposal, a Landscape Architiect was not consulted.

Chapter III

Environmental Effects

A. SOILS

Existing Condition

The analysis area for soils will be the areas where ground disturbance would occur within the Fairview Campground Decommissioning Project Area. The Project Area is located in a heavily dissected section called the Boston Mountains. Project Area elevation is about 2,180 feet above mean sea.
Additionally, two other areas (Richland Creek Campground and Moccasin Gap Day Use Parking Area) have been included in this analysis area for potential sites to move or install new toilets. The site inside Richland Creek Campground is at 1,060 feet elevation above mean sea level, and the site between the day use parking areas at Mocassin Gap is at 1,450 feet elevation above mean sea level. The soil in the project areas is stable. Soils are well drained and range from shallow to moderately deep. Slopes in the project area are level to nearly level. The soils are a complex of Linker and Mountainburg soils consisting of about 50% Linker soils, 45% Mountainburg soils, and 5% similar soils. Soils are mostly grass covered except on camp sites, the restroom, and roads which are covered with gravel or concrete.

The Proposed Action

Direct/Indirect Effects
Closure of the south loop road followed by fertilizing and seeding would help the soils in the roadbed and adjacent areas to recover from compaction and return to natural conditions over time. Removal of the amenities followed by seeding would help the soils in those areas to recover over time from compaction and displacement. Removal of dirt in the new toilet locations would result in slight soil compaction where the equipment would be located, but this would be temporary with seeding around the area where the new toilets are installed.

Cumulative Effects
The amount of soil disturbance /compaction associated with this proposal would not be measureable cumulatively. The disturbance/compaction would be temporary lasting primarily until one growing season has past.

Alternative 1: No Action

Direct/Indirect Effects
The soils within the project area would continue to be used as they currently are. Current conditions would continue.

Cumulative Effects
With no activities being implemented there would be no cumulative effects with this alternative.

B. WATER

Existing Condition

The project area (Fairview Campground) is located on a ridgetop and the west side flows into Buck Branch and then into Hurricane Creek. The east side flows into the head of Richland Creek Watershed. The two new site location areas for the relocated or new toilet(s) flow into Falling Water Creek then into Richland Creek, and the second area is on a ridgetop which flows into Moccasin Creek.

The Proposed Action

Direct/Indirect Effects
Implementation of the Proposed Action would potentially generate a very small amount of sediment, short term. By seeding and mulching the disturbed ground, no sedimentation would occur once grass seed becomes established. There would be no measureable direct or indirect effects to water quality.

Cumulative Effects
Removal of the amenities at the Fairview Campground would have no cumulative effect due to water quality do to the temporary incremental amount of disturbance and the lack of other past, present and reasonably foreseeable activities within the Hurricane Creek and Richland Creek watersheds.

There would be no cumulative effect for the installation of a toilet at the Richland Creek campground for the previous reasons stated.

For the installation of a toilet at Moccasin Gap between the day use parking areas, there are several past, present, and reasonably foreseeable activities within this watershed which must be considered. These include silviculture activities from the High Mountain Project as well as some activities associated with the Moccasin Gap Trail project being implemented. The third project approved within the watershed of Moccasin Creek is the construction of a passing lane along Arkansas State Highway 7. These other projects, would temporarily increase sedimentation for up to one growing season after the activities have been implemented, (see High Mountain Project EA or Moccasin Gap EA) however, the amount of sedimentation that would occur from installing a toilet would not be detectable and would not measurably add to the cumulative effects of the other projects.

Alternative 1: No Action

Direct/Indirect Effects
The campground at Fairview would continue to be maintained as it is. No toilets would be installed at either Richland Creek Campground or at Moccasin Gap between the day use areas. No measurable direct or indirect effects would occur.

Cumulative Effects

There would be no cumulative effects from implementing Alternative 1.

C. AIR

Existing Condition

The analysis area for air quality is the project area.

The Clean Air Act (http://www.epa.gov/air/criteria.html) requires the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The NAAQS establish thresholds for six pollutants that adversely impact public health and the environment: sulfur dioxide, nitrogen dioxide, ozone, particulate matter, lead, and carbon monoxide. Because of the nature of the project's construction activities, ozone and particulate matter are the two of primary concern. Construction equipment and vehicles emit volatile organic compounds (VOCs) and nitrogen oxides (NOx), which can contribute to the formation of ground-level ozone. Construction equipment and vehicles may also produce dust during activities, which can add to fine particulate matters in the atmosphere.

In general, the air quality in the analysis area is good (NAAQS website). Episodes of regional haze occur mainly in the spring and summer.

Proposed activities are within Newton, Pope and Searcy Counties. As of May 6, 2015, the three counties were in attainment for all the six EPA criteria air pollutants (U.S. Environmental Protection Agency 2013). EPA defines attainment areas as "A geographic area in which levels of a criteria air pollutant meets the health-based primary standard (national ambient air quality standard, or NAAQS) for the pollutant". EPA defines non-attainment areas as "A geographic area in which the level of a criteria air pollutant is higher than the level allowed by the federal standards".

Based on RLRMP standards, the desired condition for the air resource in the analysis area is to meet the requirements set by NAAQS.

Proposed Action

Direct Effects

No activities would result in violations of federal air quality standards. During project implementation, some airborne dust would likely arise from travel on roadways, and from the project area. These fine particulate matters would be considered negligible. Exhaust emissions would be released by vehicles travelling to and from the project area and from equipment in the project area during activities. Due to the distance of this area from major metropolitan areas or heavy concentrations of heavy industry, and due to favorable weather patterns keeping the atmosphere well mixed, the area should continue to exceed the NAAQS.

Indirect Effects

Currently, air quality in the area is good exceeding EPA standards, in compliance with the NAAQS and meeting the Regional Haze regulation. The prescribed treatments should not detrimentally impact the quality of air in the proposed project area or in the Class 1 air shed in the Upper Buffalo Wilderness Area.

Cumulative Effects
Based on the Interagency Monitoring of Protected Visual Environments (IMPROVE) monitoring station in Deer, Arkansas, the air quality in and around the project area is good and there are no areas in threat of reaching non-attainment status or exceeding air quality standards. There would be no measurable cumulative effects on the Upper Buffalo Wilderness Area Class I air shed from the Proposed Action.

Alternative 1 (No Action)

Direct Effects
The No Action Alternative has no activities proposed and therefore has negligible potential for affecting air quality other than that which may occur as a result of a wildfire.
The no action alternative would have no direct effect on the Class I air shed.

Indirect Effects
No indirect effects would result due to the No Action Alternative.

Cumulative Effects
No cumulative effects would result from the no action alternative.

D. RECEATION/ VISUAL QUALITY

Existing Condition

Recreation

The analysis area for recreation and visual will be the developed campground and the Ozark Highlands Trail (OHT) trailhead on the north end of the campground. Also, included in the Proposed Action is the relocation of approximately 0.3 miles of the OHT. The Project area is located north of Pelsor, AR, on the west side of Highway 7. Additionally, two other developed sites (Richland Creek Campground and Moccasin Gap day use parking area) have been included in this analysis area for potential sites to move or install new vault toilets.

Fairview has a history of low occupancy rate. In about 2000, the Forest Service closed the southern portion of the campground because of decreased maintenance due to budget and lack of use within the campground. At that time, occupancy use for the year was estimated from fee collection to be approximately 6% or 214 sites used out of 3650 sites available. Currently the use estimated from fee collection has stayed approximately the same, however; since the number of sites available was reduced, occupancy rate has been approximately 12% or 214 sites used out of 1825 sites available within a year. Therefore 88% to 94% of the sites are consistently unused.

The campground's primary attraction is that the OHT is accessible, and community water is available to hikers. A percentage of campers are attracted to Fairview Campground because the campground is situated along Scenic Highway 7. Both uses are typically transient, with an assumption of high rate of noncompliance in paying use fees. Overnight users show up very late in the evening and leave out very early in the morning before compliance checks can be made.

Richland Creek Campground and Moccasin Gap Campground both currently have vault toilets, however, recent upgrades of the campgrounds have increased the capacity of the recreational use resulting in the need for additional toilet facilities.

Visual

Fairview Campground is within two different management areas: 2.C. Developed Recreation Area and 1.H. Scenic Byway Corridors. Both management areas have been established as high scenic integrity. Visual quality impacts are defined by the degree of alteration to the characteristic landscape. As listed in the Forest Plan (p. G-4). Scenic Integrity in the High category (Appears Unaltered – Retention) which refers to landscapes where the valued landscape character "appears" intact. Deviations (activities) may be present but must repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such scale that they are not evident.

The Proposed Action

Recreation

Direct Effects
Removal of the amenities would have a direct negative effect on the recreational visitors that are traveling through and use Fairview Campground as their overnight stop because no developed campsites or toilet facilities would be present. Removing the amenities would also have a negative direct effect to the visitors that make Fairview their base camp as they day hike in the Ozark National Forest for the same reasons mentioned above.

Dispersed camping would still be allowed so traditional recreational users of Fairview (ones that come there to camp year after year) could continue to use the area without the amenities. This would reduce the measurable direct negative effects of the proposed action.

Visual
There would be slight negative direct effect to visual resources if the proposed action is chosen this would be a short term effect until vegetation covered the disturbed area(s).

Recreation

Indirect Effects
Community water would remain for the hikers of the OHT and potentially the vault toilet if it's deemed more economical to purchase new toilets for Moccasin Gap and Richland Creek than it

would be to move the toilet at Fairview. If the vault toilet is removed, sanitation of human waste could become an issue in the immediate area of the Trailhead due to concentration of recreational use associated with the trail system and general dispersed camping. This would be an indirect negative effect.

The recreational user experience is expected to improve with the addition of extra toilet facilities at Richland Creek Campground and Moccasin Gap Campground. Both campgrounds recently received upgrades expanding the capacity, therefore increasing the need for more amenities to accommodate the increase use. This would be an indirect positive effect.

Visual

Closure of the developed campground by removing the amenities would have little or no impact on the scenic integrity since vegetation impacts and ground disturbance would be minimally affected. The greatest ground disturbance would occur if the vault toilet was deemed economically feasible to remove and would be a small short term temporary negative effect.

Additional vault toilets added to Richland Creek and Moccasin Gap Campground would have minimum impacts on the scenic integrity of these sites. Richland Creek installation would not require any additional vegetation to be removed. Moccasin Gap site location would require clearing an area for the toilet, thus having direct negative effect on visuals, due to the ground and vegetation disturbance. The visual effects are expected to be short term and acceptable to the recreational user as the toilets would meet a need during peak times providing a more positive user experience.

Recreation

Cumulative Effects
The overall impact to recreational use would be noticed more by the traditional recreational user of Fairview; however this is a proportionately small number of visitors to the Ozark National Forest. The displaced recreational user would be negatively affected until they find an alternate site.

Visual

Since no other activities are planned in this area there would be no measurable cumulative effects to visual resources.

Alternative 1: No Action

Recreation

Direct/Indirect/ Effects
Fairview campground would continue as is with similar recreational use as before. Additional toilets for Richland and Moccasin Gap Campground would still be needed.

Visual

Current trends would continue there would be no direct/indirect effects to visual resources other than what is already occurring.

Recreation

Cumulative Effects
Recreation would not measurably be effected. Use and maintenance efforts at Fairview would continue to be the same as they currently are.

Visuals

With no activities being implemented there would be no cumulative effects with this alternative.

E. VEGETATION MANAGEMENT

Present Conditions

For the purposes description and analysis, vegetation communities are divided into a series of ecological regions called ecoregions and habitat communities. An ecoregion (ecological region), is a geographically distinct assemblage of natural communities and species, covering a relatively large area of land or water (Wiken 1986, Omernik 1987, Commission for Environmental Cooperation [CEC] 1997). Ecoregion definitions were developed to separate the landscape into areas that have relatively similar characteristics of landform, land use, soil and historical natural vegetation (CEC 1997). In Arkansas, there are 7 Level III ecoregions and 32 Level IV ecoregions. The Fairview Campground decommissioning project is located on the Big Piney Ranger District of the Ozark-St Francis National Forests in Arkansas which is located within the Boston Mountains Level III ecoregion. This Level III ecoregion is further divided into Upper Boston Mountains and Lower Boston Mountains Level IV ecoregions. The ecological communities or major forest types which are found within this ecoregion include Dry-Oak Forest and Woodland, Shortleaf Pine-Oak Forest and Woodland, Dry-Mesic Oak Forest, Mesic Hardwood Forest, Loblolly Pine Forest, and Riparian Forest. The following offers a description of each Level III and IV ecoregion and major forest type found in the project area on the Big Piney Ranger District.

Ecoregion III Boston Mountains

The Boston Mountains are mountainous, forested and underlain by Pennsylvanian sandstone, shale and siltstone. The maximum elevations are higher, soils have a warmer temperature regime and carbonate rocks are much less extensive than in the Ozark Highlands. Physiography is distinct from the Arkansas Valley with the upland soils being mostly Ultisols that developed under oak–hickory and oak–hickory–pine forests (Omernik 1987). The forests are still widespread across the ecoregion and commonly contain northern red oak, southern red oak, white oak and hickories in the uplands (Gerstacker 1881, USDA Forest Service 1999a, Lockhart et al. 1995, Harmon et al. 1996). Shortleaf pine grows on drier, south- and west-facing slopes underlain by sandstone. Pasture- or hayfields occur on nearly level ridgetops, benches and valley

floors (USDA Forest Service 1999a). Population density is low; recreation, logging and livestock farming are the primary land uses. Water quality in streams is generally exceptional; biochemical, nutrient and mineral water quality parameter concentrations all tend to be very low (Woods et al. 2004).

Ecoregion IV Upper Boston Mountain

The Upper Boston Mountains are dissected, rugged mountains with steep slopes, sharp ridges and narrow valleys (USDA Forest Service 1999a,). Benches on the mountainsides occur frequently and are characteristic of the area. The Upper Boston Mountains ecoregion is generally higher and moister than the Lower Boston Mountains with elevations varying from 1,000 to 2,800 feet (USDA Forest Service 1999a). Mostly wooded, the Upper Boston Mountain region is composed of mixed deciduous forest and oak woodlands. The clearings are used as pasture or hayfields.

The major natural vegetation community of the Upper Boston Mountains ecoregion is oak–hickory forest. On upland areas: Northern red oak, White oak, Pignut hickory and Mockernut hickory dominate. Sweetgum, willows, birch, American sycamore, hickories, Southern red oak and White oak are found on narrow floodplains and low terraces (USDA Forest Service 1999a, Woods et al. 2004). The forests of the Upper Boston Mountains are more closed and contain far less pine than those of the Lower Boston Mountains. North-facing slopes support mesic forests. The ecoregion is underlain by Pennsylvanian sandstone, shale and siltstone (USDA Forest Service 1999a). Water quality in streams reflects geology, soils and land use, and is typically exceptional; mineral, nutrient and solid concentrations as well as turbidity all tend to be very low. Summer flow in many streams is zero or near zero (Woods et al. 2004, USDA Forest Service 1999a).

The Upper Boston Mountain Ecoregion is just to the North of the project area.

Ecoregion IV Lower Boston Mountain

The Lower Boston Mountains are characterized by low mountains, rounded high hills and undulating plateaus. The ecoregion contains moderately-to-highly dissected high hills containing steep slopes and significant local relief and elevations of up to 1000 ft (Ozark Ecoregional Assessment Team 2003). The Lower Boston Mountains ecoregion is a mosaic of woodland, forest and savanna that contrasts with the denser, moister and more closed forests of the Upper Boston Mountains. Mostly forest and woodland; the ecoregion becomes more open to the west. Flatter areas are used as pastureland or hayfields (USDA Forest Service 1999a, Woods et al. 2004).

The natural vegetation of the Lower Boston Mountains ecoregion is oak–hickory–pine and oak–hickory forests. Mixed oak and oak-pine forests, woodlands or savanna occur on uplands. Northern red oak, white oak, post, scarlet, black, blackjack oak, pignut hickory, shagbark hickory, mocker nut hickory and Shortleaf pine are the dominant native tree species of the area. On lower, drier south- and west-facing sites shortleaf pine dominates. On narrow floodplains and low terraces, Sweetgum, willows, birch, American sycamore, hickories, Southern red oak and White oak are common (USDA Forest Service 1999a, Woods et al. 2004). The ecoregion is underlain by Pennsylvanian sandstone, shale, chert and siltstone (USDA Forest Service 1999a). Summer flow in many streams is zero or near zero, but enduring pools fed by interstitial flow occurs (Woods et al., 2004, USDA Forest Service 1999a).

The project area is on the Northern edge of the Lower Boston Mountain Ecoregion. The majority of the ecoregion extends to the South.

Ecological Communities/ Major Forest Types within the project area

Mesic Hardwood Forest

The Mesic Hardwood Forest community comprised of forests with canopies dominated (>50%) by American beech, magnolia, maple, and/or walnut. It also includes forests dominated by Sweetgum when not in floodplain sites. It may include a significant component of mesic oak species. This community is commonly found on lower slopes and north aspects but may also be found on riparian or floodplain sites (USDA Forest Service 2005).

Riparian Forest

The Riparian Forest community is comprised of forests with canopies (>50%) by ash, elm, sycamore, River birch, Sugarberry, cottonwood, willow, and/or other trees typical of riverfront or floodplain forests. It includes forests dominated by Sweetgum when on floodplain sites. Willow oak, Laurel oak, and Water oak may be components.

This community is commonly found on floodplains of larger streams and rivers. The forest community type of Riparian Forest should not be confused with riparian ecological site type or riparian management areas. Other community types such as Dry-Mesic Oak Forest and Mesic Hardwood Forests may also occur on riparian sites or in riparian management areas (USDA Forest Service 2005).

Invasive Species

Invasive species is one of the four threats to the health of the National Forests and Grasslands identified by former Forest Service Chief Dale Bosworth. An invasive species is identified as "[a] species that can move into an area and become dominant either numerically or in terms of cover, resource use, or other ecological impacts. An invasive species may be either native or non-native" (USDA-Forest Service 2005a p. 132; USDA-Forest Service 2005b p. 172). Invasives destroy fish and wildlife habitats, alter nutrient cycling and natural fire regimes, and can reduce biodiversity and degrade native ecosystem health. Infestations of invasive plants have reached epidemic proportions, spreading rapidly over hundreds of millions of acres, across all landscapes and ownerships. Invasive forest diseases, such as Chestnut Blight, wiped out entire forest species in the East (i.e., the American Chestnut) and Dutch Elm disease virtually eliminated an urban forest tree- the American Elm. Invasive Species pose a long-term risk to forest health. These species interfere with natural and managed ecosystems, degrade wildlife habitat, reduce the sustainable production of natural resource based goods and services, and increase the susceptibility of ecosystems to other disturbances such as fire and disease. There are several non-native invasive plant species known to occur throughout the Big Piney Ranger District and could be present within the Fairview Campground Decommission Project. These species include shrubby Lespedeza (*Lespedeza bicolor*), Chinese Lespedeza (*Lespedeza cuneata*), Royal Paulownia- (*paulownia tomentosa)*, privet (*Ligustrum spp.*), Japanese Honeysuckle (*Lonicera japonica)*, Nonnative Rose (*Rosa multiflora*), Mimosa (*Albizia julibrissn*), Tree of Heaven- (*Ailanthus altissima*), and Japanese stiltgrass (*Microstegium vimineum).*

There is a need to conserve the native biological diversity of plant communities, species, and populations. It is necessary to prevent the displacement of native species and the disruption of plant communities through the introduction of aggressive, persistent, self-replicating, long lasting non-native vegetation into managed or natural plant communities.

Proposed Action

Direct Effects
Under the proposed action, few individual woody species would be impacted by the activities proposed. Small diameter sized woody plants could be impacted by removing amenities at the campground, and some woody plants could be removed when the toilet is first removed at Fairview and installed between the day use parking areas at Moccasin Gap. Within three growing seasons after implementation the area at Fairview would start to see woody vegetation sprouting and moving into the campground from lack of use and maintenance of the area. No effect to vegetation would occur at the Richland Creek Campground with installation of a new toilet. The proposed toilet site currently has no vegetation on it.

Some herbaceous grasses and plants would be impacted by the removal of the amenities at Fairview but the area would be reseeded after the activities were implemented so this would be a temporary effect.

Indirect Effects
Slightly more area would be available for growth of woody plants after removal of amenities at the Fairview Campground and this would occur within a few growing seasons.

Cumulative Effects
There would be no measurable cumulative effects to vegetation at Fairview or Richland Creek campgrounds since little vegetation would be disturbed.

A minor amount of vegetation would need to be removed (30’ by 30’) to install the toilet between the Moccasin Gap Day use parking areas. This would add incrementally (not measurable) to the other approved ongoing activities in the area (see chapter II past, present, reasonably foreseeable activities). There would be no measurable cumulative effect to vegetation with the toilet installation at Moccasin Gap.

Alternative 1: No Action

Direct Effects
The No Action Alternative would keep the campground open. Use and maintenance would remain similar as it has in the past.

Indirect Effects
The No Action Alternative would keep the campground open. Use and maintenance would remain similar as it has in the past.

Cumulative Effects:
Current conditions would remain there would be no measurable cumulative effects to vegetation.

F. WILDLIFE AND FISHERIES

Existing Conditions

The analysis areas used for the discussion of terrestrial wildlife are three developed recreational sites on National Forest lands. Fairview and Richland recreation areas are the least developed and occupy approximately 20 acres; however, Richland campground has had some improvements within the last few years. Moccasin Gap was reopened in early 2015 after improvements and expansions were developed, and the site now occupies approximately 25 acres or less.

The analysis areas for fisheries are the watersheds associated with these recreation areas. The position of these recreation areas results in more than one watershed for each campground. Fairview is split between Hurricane Creek-Upper Big Piney Creek and the Headwaters of Richland Creek. Richland Creek Campground is divided between Falling Water Creek of the Richland Creek- Buffalo River and Outlet Richland Creek of the Richland Creek Buffalo River watersheds. Moccasin Gap is straddling the Lower North Fork of the Upper Illinois Bayou and Moccasin Creek-Lower Big Piney Creek watersheds.

Currently, timber within the Fairview and Moccasin Gap campgrounds is primarily shortleaf pine. The understory within the developed campgrounds is sparse. The general area of Fairview saw a large amount of timber damage during the 2009 ice storm. Fairview and Moccasin Gap are on ridgetops along Highway 7. Richland is more remote, near Richland Creek wilderness area and along Falling Water/Richland creeks.

Threatened, Endangered, or Sensitive (TES) plants and animals are not known to be in the project action areas; however, a proposed bat species, Northern long-eared bat, is most likely within the general areas because it has been documented across the entire district. Details can be found in the Biological Evaluation (BE), and a summary of the determination of potential effects can be found in the TES section of this EA.

For the purpose of this analysis, the areas within the project boundaries were used to determine wildlife effects and the affected watersheds were used for fisheries.

Management Indicator Species Analysis

This analysis will focus upon the Management Indicator Species (MIS) to assess the potential impacts of this project on wildlife by the actions described in Chapter 2 of this EA. The foundation for MIS can be found in the National Forest Management Act and Planning regulations (36 CFR 219.19). Briefly, MIS were selected because "their population changes are believed to indicate the effects of management activities" and they were used to help meet the Forest's legal requirement to "preserve and enhance the diversity of plants and animals consistent with overall multiple-use objectives." It is important to remember that MIS are a planning and monitoring tool that reflects a way to analyze a change in conditions. The list in the table below provides information on the current conditions for the 17 MIS chosen for the Forest. The Forest completes internal reports assessing population and habitat trends for MIS, and database collections were used to evaluate the proposed action and alternatives.

Table 1 Management Indicator Species for the Ozark-St. Francis National Forest

Northern Bobwhite *(Colinus virginianus)* – For the Forest, oak savanna and woodland, restored glades, native fields, early seral forest (0-5) and thinned and burned forest areas. This species is at historic lows on the forest. Long term Breeding Bird Surveys across this species entire range show a marked declined.
White-tailed Deer (*Odocoileus virginianus*) - For the Forest, the preferred habitat for deer can be described as areas of mature hardwood, hardwood-pine and pine-hardwood stands, which provide hard and soft mast, with 0-5 year old regeneration areas, food plots, oak savannas and woodlands and permanent water sources intermixed. The regeneration areas, savanna and woodlands provide cover and along with food plots provide forage.
Black Bear (*Ursus americanus*) - On the Forest, the preferred habitat for bear can be described, as areas that are relatively isolated from human disturbance, comprised of mature hardwood, hardwood-pine and pine-hardwood forest types that provide hard mast, with 0-5 year old regeneration areas and food plots intermixed to provide cover, forage and soft mast.
Eastern wild turkey (*Meleagris gallapavo*) - The preferred habitat for wild turkeys can be described as mature hardwood or hardwood-pine stands with open areas (fields, food plots or natural openings) nearby and a permanent water source readily available. Habitat is wide spread on the forest, but recent surveys indicate decline.
Prairie Warbler *(Dendroica discolor)* - Optimal habitat conditions include early seral habitat, regeneration areas that are in the 5-20 year old age class, pine-bluestem and oak savanna/woodland habitats. Species monitoring indicates declining trend for this physiographic region.
Yellow-breasted Chat (*Icteria virens*) - On the Forest, the preferred habitat for the chat can be described as regeneration areas and other openings with 1-3 m (3-10 ft) tall brushy vegetation. Identified in RFLRMP as MIS for the St. Francis NF.
Brown-headed Nuthatch *(Sitta pusilla)* - This species is tied to mature open pine stands or pine woodland conditions. The upland Ozarks fall outside of this species range although it is possible that historically it was more widespread where mature pine stands once occurred.
Northern Parula *(Parula americana)* – Habitat is typically mature, moist forests along streams and within riparian areas. Commonly found along Ozark wooded rivers and streams.
Rufous-crowned Sparrow *(Aimophila ruficeps)* – A very small population occurs on Mt. Magazine in Logan County. It is primarily a species of the desert southwest. Habitat would include glades or thin shrub/seedling stands with sparse grasses and shrubs.
Cerulean Warbler *(Dendroica cerulean)* – The Arkansas Ozarks are on the southern edge of this species range. Primary habitat includes rich mature forest with mesic to wet conditions. Typically they have larger diameter trees with a defined shrub layer. More commonly found in bottomland hardwoods, but on the main division of the forest in upland habitats.
Ovenbird *(Seiurus aurocapillus)* – Typical habitat would include mid to late seral dry-oak deciduous forests with limited understory. Nesting occurs on the ground. Species well distributed in the Ozark Uplands.
Red-headed Woodpecker *(Melanerpes erythrocephalus)* – Preferred habitat would include open woodlands or pines. Requires dead trees and snags for nesting. Species is uncommon on the Forest.
Pileated woodpecker (*Dryocopus pileatus*) - The preferred habitat for the pileated woodpecker can be described as mature stands of any species or species mix with large dead snags and woody debris on the

forest floor. USFWS Breeding Bird Surveys show this species is stable or slightly decreasing for this physiographic region.
Scarlet Tanager *(Piranga olivacea)* – Mature deciduous forest and rich upland forest is the preferred habitat for this species. In suitable habitat this species is not uncommon on the Forest. Long term Breeding Bird Surveys for indicates a decline overall for AR but is slightly increasing on Forest.
Acadian Flycatcher *(Empidonax virescens)* – Prefers moist deciduous forest near streams and bottomland hardwoods. Not uncommon and increasing on the Ozark NF in riparian areas but declining overall.
Small-mouth Bass (*Micropterus dolomieui)*_- Cool, clear, mid-order streams, greater than 10.5 m (35 ft), wide with abundant shade, cover and deep pools, moderate current, and gravel or rubble substrate characterize optimum riverine habitat. The largest stream populations of smallmouth bass occur in streams with gradients of 0.75-4.70 m/km, (3-15 ft/mi) that provide alternating pools and riffles, support. Standing crop is generally largest in pools deeper than 1.2 m (4 ft.). In suitable habitat this species is indicative of high water quality.
Largemouth Bass (*Micropterus salmoides)* – prefers larger ponds, lakes, reservoirs, slough and river backwaters. This species prefers warm quiet waters with low turbidity; soft bottom and beds of aquatic plants; farm ponds, swamps, lakes, reservoirs, sloughs, creek pools, and river backwaters. Usually close to shore in lakes and reservoirs.

A more complete description of the habitat relationships for these species can be found in the Nature Serve database: http://www.natureserve.org/ , and a Land Manager's Guide to Birds of the South: http://www.srs.fs.usda.gov/pubs/2702

Two of the MIS species were eliminated from the analysis due to the following reasons: the Yellow Breasted Chat is identified in the Forest Plan as an MIS for the St. Francis NF, and the Rufous-crowned Sparrow's occurrence on the Forest is limited to an area on the Mt. Magazine district. The remaining MIS will be divided into two groups: Low Disturbance Species (LDS) and High Disturbances Species (HDS). Low disturbance species occupy habitats that require low intensity and/or frequency of disturbances. An example would be a closed canopy forest. Habitats of HDS species require high intensity and/or frequency of disturbance to maintain them. Examples of these habitats are oak woodlands and 0 to 10 year old regeneration stands. The table below will identify the classification of each of the Terrestrial MIS species. The Scarlet Tanager and Pileated Woodpecker will represent LDS species. Their responses to management activities will serve as an indicator for how other LDS such as ambystomatid salamanders, ovenbirds or southern flying squirrels will respond. The Prairie Warbler, Northern Bobwhite quail, deer, and turkey will represent the HDS species. Their responses will serve as an indicator for how other HDS species such as Eastern cottontails or Bluebirds will respond to management activities.

Table 2 Classification of MIS

Common Name	Classification (LDS or HDS)
Northern Bobwhite	HDS
White-tailed Deer	HDS
Black Bear	HDS
Wild Turkey	HDS

Common Name	Classification (LDS or HDS)
Prairie warbler	HDS
Brown-headed Nuthatch	HDS
Red-headed Woodpecker	HDS
Cerulean Warbler	LDS
Ovenbird	LDS
Northern Parula	LDS
Pileated Woodpecker	LDS
Scarlet Tanager	LDS
Acadian Flycatcher	LDS
Smallmouth Bass	NA
Largemouth Bass	NA

Proposed Action (PA)

Direct/Indirect Effects

Road closure and decommissioning of the south loop would benefit the HDS and LDS by decreasing human disturbance, especially for the demand species (deer and turkey) as well as herpetofauna and migratory birds. Benefits include the reduction of noise disturbance, sensitivity to exposure, and habitat degradation such as ruts and eroded areas. All LDS species currently present in the area would slightly benefit from the reduction of the human footprint in Fairview campground, especially species like ovenbirds that nest on the ground. The proposed action would increase understory early successional shrub habitat in Fairview. Although people would still be allowed to practice dispersed camping, vehicle traffic and mowing would be eliminated on the south loop which would increase cover near the ground and decrease noise and direct disturbance. Some HDS species would also benefit from the added vegetative cover in terms of available browse and camouflage; however, the habitat would remain the same in that it is a mature pine stand, only it would have more vertical structure on a very limited amount of area. HDS species that prefer large areas of early successional habitats or increased water sources would remain without suitable habitat in this area. Repurposing Fairview campground would allow management to redirect limited resources to higher usage areas, and better maintenance of facilities encourages users to remain within the developed template which reduces disturbance to wildlife.

Removal of the vault toilet in Fairview campground would disturb approximately a 12 x 16 surface area. The resulting hole would be filled in and seeded. Other trace disturbances may occur with the removal of other amenities mentioned in Chapter II. These areas would again support vegetation for food and cover; however, non-native invasive species (NNIS) take advantage of disturbed areas to become established. The disturbances in close proximity to roads and open canopies create an even larger “watch out” situation as these are places where NNIS are most often introduced. NNIS is a threat to wildlife because they can out-compete native vegetation that animals rely on for food and cover essentially creating a single structured mono-culture instead of a “buffet” of various grasses and forbs. Seeding and establishing a ground cover will reduce the potential for NNIS to take advantage of the disturbed soil. Vegetative species diversity would be higher in the Action alternative as long as NNIS does not

become established; therefore, monitoring the disturbed sites until re-establishment of vegetation would increase the successfulness of the proposed action. Increasing acreage of early successional vegetation in the understory, while maintaining mature forest and a closed canopy, would help support current levels of both LDS and HDS within the project area. However, retaining a restroom facility in Fairview may be more beneficial to wildlife than the small patch of vegetation that would be gained. The benefit of containing human waste within the localized areas would have a greater impact on the health of humans and wildlife than preserving an approximate 192 square feet of vegetated ground cover because "Human waste may be an important source of microbial exposure to wildlife" (USDA, 1995). For through-hikers, there are currently three FS toilet facilities on this district's portion of the Ozark Highlands Trail (OHT) approximately 18 miles apart.

Installation of either the vault toilet that was removed from Fairview or a new vault toilet in Richland Creek and/or Moccasin Gap campgrounds would occur within the current footprint of the existing recreation areas. These areas are already receiving periodic disturbance from human presence and traffic. The toilet vaults contain a liner and are pumped out at least two times per year, spring and fall, and on an "as needed" basis during the summer. The location of these proposed toilets are outside of the floodplains of creeks and rivers.

Removal of the fee tube and replacement of the kiosk and registration box from the Fairview campground to the Fairview trailhead and parking lot would cause minimal, post-hole sized, soil disturbance that would also be seeded to re-establish vegetative cover that would anchor soils to the site and prevent soil runoff. Re-routing the 0.3 miles of trail is proposed to streamline through-hikers and create a spur trail to access the parking lot and remaining Fairview campground water hydrant; however, it is likely that this could create additional user-made trails as hikers coming from the west shortcut to the parking area to get water, transportation, or to camp. User made trails create a larger area of influence on wildlife from human disturbance (Miller, et.al, 2001; Taylor and Knight, 2003). Use for this site is low. The old section of trail would be rehabilitated and allowed to grow up with vegetation; however, it is likely that users would continue to use this path (because of prior knowledge or due to the visibility of the campground from the trail) or create another footpath near-by to quickly access the trailhead facilities. The new trail would be brush-hogged to remove woody and vegetative growth but would not expose bare mineral soil until hikers tread-out the vegetation. Multiple trails would increase soil compaction in the localized area. Sedimentation of wildlife drinking water is not expected since these activities would be on a ridgetop/upper slope and away from any drainages or natural water sources and the intensity of these actions are low.

Combined, the analyzed watersheds cover 146,930 acres. Each campground where disturbance is proposed is approximately 20 acres or less and is on a watershed dividing line; therefore, the maximum acres of direct disturbance within each watershed from the proposed action are about 10 acres. Due to the location of the recreation areas on ridges (Fairview and Moccasin Gap) and on a nose slope outside of the floodplain (Richland Creek campground excluding the seasonal day use area), the distance between projects, and the small impact area of proposed work on a one-time basis, it is unlikely that these projects would impact area streams or their inhabitants.

<u>Cumulative Effects</u>

Within the watersheds, there are other projects that have been, or will be, analyzed in other NEPA documents. These projects include the Highway 7 expansion north of Moccasin gap which is nearly completed, the High Mountain Project in the Moccasin Gap-Lower Big Piney watershed is on-going, Bearcat Hollow phase 1&2 projects are still being implemented within the two watersheds of Richland Creek Campground, and the future Fuels EA which would impact the watersheds of Fairview and Richland Creek Campgrounds.

In contrast to these projects, the Fairview Proposed Action would impact very few acres within a short time frame. The overall structure and quality of existing vegetative habitat would remain close to current conditions and would therefore not contribute to further fragmentation of the landscape. Recovery of the site from soil disturbance should also occur in a short time period and is not expected to contribute to the sedimentation of aquatic resources.

On private land, the Mack's Pines campground attracts ATV and horse users as does Moccasin Gap and advertises the availability of Forest trails. Better amenities within the campgrounds may attract more users. This, in addition to increased wildlife viewing and hunting opportunities in the Bearcat project areas near Richland Campground, could increase the human disturbance level in these areas of the Forest. The addition of toilets would help accommodate the anticipated increase in use.

Alternative 1: (No Action)

Direct/Indirect Effects
In the NO ACTION alternative, current conditions within the recreation area would remain the same. Vegetative structure within the campground would consist of the overstory canopy without vertical structure in the understory. The disturbance of human presence on wildlife in Fairview would be slightly larger than in the proposed action because the south loop would remain open. The convenience of restroom facilities to hikers on the Ozark Highlands Trail would decrease wildlife's potential exposure to human waste.

Cumulative Effects
As the private land campground continues to attract users to the area, future needs from increased usage would not be met without the installation of a toilet at Moccasin Gap. Increasing interest in the Bearcat project's developments is likely to spur interest in the Richland Creek Campground, and user needs may tax current facilities if the installation of a toilet there does not happen.

The developed recreation areas are not high quality wildlife habitat for either HDS or LDS. The No Action alternative will fail to address human response to improvements to campgrounds, roads and trails within area that sustain a notable amount of recreational activity. Redirecting management efforts to higher priority areas would not occur without repurposing Fairview campground.

G. PROPOSED THREATENED, ENDANGERED, AND SENSITIVE SPEICES (PETS)

Terms Used in PETS Analysis

Biological Evaluation - a document that discloses the effects of management activities on PETS species and their associated habitat that occur or are likely to occur in the analysis area.

Endangered Species - Any species (plant or animal) which is in danger of extinction throughout all or a significant portion of its range and listed as such by the Secretary of the Interior in accordance with the Endangered Species Act of 1973.

Threatened Species - Any species (plant or animal) that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range and one that has been designated as a threatened by the Secretary of Interior in accordance with the Endangered Species Act of 1973.

Candidate Species- plants and animals for which the U.S. Fish and Wildlife Service (USFWS) has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities.

Proposed species- are those candidate species that were found to warrant listing as either threatened or endangered and were officially proposed as such in a *Federal Register* notice after the completion of a status review and consideration of other protective conservation measures.

Sensitive Species - Those plant and animal species identified by the Regional Forester for which population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or density, or significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.

Existing Conditions

A biological evaluation (BE) has been completed that examines all known occurrences of Sensitive (S) species that occur on the Regional Forester's Sensitive Species list and applicable to the Ozark-St. Francis National Forest. In addition, federally proposed, endangered and threatened (PET) species identified through informal consultation with the USFWS were also considered. All but 10 of the PETS species were eliminated from further evaluation due to one or more of the following factors:

- The Project Area is not within their known, documented geographic range.
- The species has never been documented within watersheds that are adjacent to or encompass the project area or its sphere of influence in field surveys, monitoring activities, reports, or the scientific literature.
- The treatment area does not have suitable habitat for these species

PETS species known to occur or which may occur within project treatment areas or area of influence include:

Table 3. PETS and USFWS Status

COMMON NAME	SCIENTIFIC NAME	CLASSIFICATION
Gray bat	*Myotis grisescens*	Endangered
Indiana bat	*Myotis sodalis*	Endangered
Northern Long-eared bat	*Myotis septentrionalis*	Threatened
Eastern Small Footed Myotis	*Myotis leibii*	Sensitive
Bald Eagle	*Haliaeetus leucocephalus*	Sensitive
Ozark Chinquapin	*Castanea pumila ozarkensis*	Sensitive
Moore's Larkspur	*Delphinium newtonianum*	Sensitive
Ozark spiderwort	*Tradescantia ozarkana*	Sensitive
Longnose Darter	*Percina nasuta*	Sensitive
Nearctic paduniellan caddisfly	*Paduniella nearctica*	Sensitive

The BE has been completed for the actions proposed and is hereby incorporated by reference. A copy is also available in the process file. The BE utilized internal expertise, earlier discussions with the US Fish and Wildlife Service (Conway, AR Office), conversations and species data from the Department of Arkansas Heritage, field reviews by District personnel, collected inventory data on the District, and field surveys conducted within the proposed project area.

No critical habitat for any PET species has been identified within the analysis area. For a complete description of each species needs and habitat conditions, reference the BE found in the process file for this project.

Proposed Action

Direct/Indirect Effects

The proposed action is expected to impact TES species as follows:

Table 4. Effects Determinations by BE for Fariview Decommission Project

COMMON NAME	IMPACT
Gray bat	No Effect
Indiana bat	No Effect
Northern Long-eared bat	May Affect, Not likely to Adversely Affect
Eastern Small Footed Myotis	May Impact individuals but not likely to cause a trend to federal listing or a loss of viability.
Bald Eagle	May Impact individuals but not likely to cause a trend to federal listing or a loss of viability.
Ozark Chinquapin	May Impact individuals but not likely to cause a trend to federal listing or a loss of viability.
Moore's Larkspur	May Impact individuals but not likely to cause a trend to federal listing or a loss of viability.
Ozark spiderwort	May Impact individuals but not likely to cause a trend to federal listing or a loss of viability.
Longnose Darter	No Impact

Nearctic paduniellan caddisfly	No Impact

The Proposed Action would not effect/impact the gray bat, Indiana bat, Longnose darter, and Nearctic paduniellan caddisfly. All other TES species may be effected/impacted without an adverse effect or downward trend. The no action alternative would allow conditions to remain the same for TES species, but it would not address human needs which may lead to habitat or health degradation in the future.

Cumulative Effects
With the advancement of White Nose Syndrome (WNS) into Arkansas, bat species are likely to decline within the next several years independently of forest habitat management. Of the sensitive species identified as occurring within the analysis area, Ozark chinquapin would likely continue to decline overall due to the effects of the chestnut blight across its known range.

Alternative 1: (No Action)

Direct/Indirect Effects
In the NO ACTION alternative, current conditions within the recreation areas would remain the same. Vegetative structure within the Fairview campground would consist of the over-story canopy without vertical structure in the understory. The disturbance of human presence on TES in Fairview would be slightly larger than in the proposed action because the south loop would remain open. The convenience of restroom facilities to hikers on the Ozark Highlands Trail would decrease wildlife's potential exposure to human waste. Future needs from increased usage due to improved facilities at Moccasin Gap would not be met without the installation of a toilet potentially increasing TES exposure to human waste and increased trampling from user made trails into the woods for creating "catholes".

Cumulative Effects
The No Action alternative will fail to address human response to improvements to campgrounds, roads and trails within areas that sustain a notable amount of recreational activity. Redirecting management efforts to higher priority areas would not occur without repurposing Fairview campground. The developed recreation areas are not high quality habitat for TES.

Private land campground facilities near Moccasin Gap would continue to attract users to the area, and future needs from increased usage would not be met without the installation of a toilet. Increasing interest in the Bearcat project's developments is likely to spur interest in the Richland Creek Campground, and user needs may tax current facilities if the installation of a toilet there does not happen.

H. HUMAN HEALTH FACTORS

Existing Condition

The Fairview Campground has been at its present location for at least 40 years. The area is moderately forested (mostly shortleaf pine) with some manmade features present (kiosks, picnic tables, trash cans, lantern posts, fire rings, etc.) within the boundary of the campground are the

concrete foundation and support blocks from a "Fire Lookout Tower" which was taken down and dismantled several decades ago. The campground with its six campsites has received what could be considered low-moderate use with most users staying one night. Before 2006 Fairview did receive a higher amount of "rest stop" users stopping in to use the restroom facility, but after Rotary Ann rest stop area (seven miles south of Fairview Campground) received a major rebuild almost all the "rest stop" traffic quit stopping at Fairview. The Ozark Highlands Trail has a trailhead at the north end of the Fairview Campground and the trail is located just outside the boundary of the campground. The trailhead is used as a drop-off / pickup point and some trail users overnight at Fairview replenishing their water supply using the hydrant provided between the trailhead and the campground.

Proposed Action

Direct Effects

With the proposed action, use by the public in the area would be less, which would lessen the chance of someone being hurt by a hazard such as a dead tree falling. The risk to the public using the area generally would decrease once the project was implemented this would be a direct positive effect to human health and safety.

Indirect Effects

One temporary indirect negative effect is during the implementation phase of this project, the risk to the workers could be increased from operating heavy equipment. All OSHA applicable rules and regulations would be adhered to. Operating heavy equipment can have risk, however, workers implementing the proposal would most likely be participating in the same type of work, whether the proposed action is chosen or not, their exposure would likely be the same.

A potential indirect negative effect would be if more people than expected use the Fairview area for dispersed camping after removal of the amenities. Then it is possible that public health risk could be increased due to lack of sanitation facilities.

New toilet facilities at Moccasin Gap and Richland Creek would have an indirect positive effect on human health and safety by providing users a sanitary bathroom to use. Users needing to go to the bathroom would not be tempted to "go" in the woods adjacent to the day use areas potentially creating an unsanitary condition.

Cumulative Effects

This area of National Forest would be incrementally safer due to less public use in the area, but the proposed action would not measurably increase the safety to the public considering the whole Big Piney Ranger District.

Alternative 1: (No Action)

Direct Effects

With this alternative the current level of risk to the public would remain as it is because no activities would take place.

Indirect Effects

No activities would take place so there would be no indirect effects to human health and safety.

Cumulative Effects
If this alternative is chosen the risk to human health and safety would not change so there would be no cumulative effects.

I. Climate Change

Existing Condition

Although it is possible to quantify a project's direct effects on carbon sequestration and greenhouse gas (GHG) emissions, there is no certainty about the actual intensity of individual project's indirect effects on global climate change. Uncertainty in climate change effects is expected because it is not possible to meaningfully link individual project actions to quantitative effects on climatic patterns. Complete quantifiable information about project effects on global climate change is not currently possible and is not essential to a reasoned choice among alternatives. However, based on climate change science, we can recognize the relative potential of some types of proposals and alternatives to affect or influence climate change and therefore provide qualitative analysis to help inform project decisions. Climate change in this assessment focused on using qualitative rather than quantitative analysis.

Climate change may affect not only the temperature but may also affect precipitation amounts and intensity for a given location. There has been an increase in heavy downpours in many parts of the region (Karl and Peterson, 2009), indicating an upward trend in rainfall intensity for a given event. The frequency of extreme high rainfall events in the southern United States also appears to be increasing, which might imply an increased flooding frequency (Chen *et al*, 2012). This is particular concern to streambank erosion since approximately 75% of soil loss occurs during the four largest storms measured each year (Wischmeier, 1962).
According to a report from the Template for Assessing Climate Change Impacts and Management Options (TACCIMO) run for the Fort Douglas Streambank Stabilization Project 2014,(a project approximately eight miles west of Fairview Campground), the average monthly precipitation for this area is expected to remain relatively constant. However, as noted above, the precipitation may come in the form of more intense storms, producing higher runoff from similar monthly rainfall amounts.

Proposed Action

Direct Effects
The amount of ground disturbance from implementing the proposed action would be less than 500 square feet. The amount of Greenhouse gases produced from this would be almost immeasurable. There would be no measurable direct effect to climate change.

Indirect Effects
With such a small amount of area potentially being disturbed there would be no measurable indirect effects to climate change.

Cumulative Effects
Considering the known past, present or reasonably foreseeable actions in the project area there would be no measurable cumulative effects to climate change because the size of this project would be so small.

Alternative 1 (No Action)

Direct Effects
No activities would be implemented, current conditions would continue and there would be no direct effect by this alternative on climate change.

Indirect Effects
No indirect effects would result since no activities would be implemented.

Cumulative Effects
Since no activities would be implemented this project could not add any greenhouse gas emissions to climate change there would be no cumulative effect.

J. HERITAGE RESOURCES

Existing Condition
This project proposal falls under an existing Programmatic Agreement (PA) between the United States Forest Service, Native American federally-recognized Tribes, and the Arkansas State Historic Preservation Office. This area has received complete inventory under previous projects and additional archeological inventory has been completed in conjunction with this project. A determination of *no adverse effect* will be made for all historical properties. Report writing and consultation with SHPO and Tribes are continuing.

Proposed Action

Direct Effects of the Proposed Action
The area(s) have been previously surveyed and any known sites have been recorded and would be avoided. Therefore, the proposed action would have no direct adverse effect to historical properties.

Indirect Effects of the Proposed Action
Since no sites would be affected, the proposed action would have no adverse effect to historical properties.

Cumulative Effects of the Proposed Action (PA)
No sites would be affected by this project. Therefore, the proposed action would have no adverse effect to historical properties.

Alternative 1 (No Action)

Direct Effects of Alternative 1
No activities would be implemented so there would be no adverse effect to historical properties.

Indirect Effects of Alternative 1
With this alternative no activities would be implemented so there would be no adverse effect to historical properties.

Cumulative Effects of Alternative 1 (No Action)
No activities would be implemented so there would be no adverse effect to historical properties.

Chapter IV

Coordination and Consultation

The Forest Service consulted the following individuals, Federal, Tribal, State, and local agencies during the development of this environmental assessment:
ID Team Members by Location:

Ozark National Forest – Big Piney Ranger District:

Terry Hope - Recreation Assistant
Jim Dixon – Integrated Resources Team Leader
Dwayne Rambo - Wildlife Biologist
Rickey Adams – Engineering Technician
Sarah Davis – Wildlife Biologist
Kenney Smedley – Engineering Technician
Mike Mulford – NEPA Coordinator
Sam Clark – Silviculturist
Anthony Harris – Timber Management Officer
Mark Hellen – District Forester
Leif Anderson – District Forester
Mike Walden – Heritage Resources Technician
Bob Foxworth – Archeologist

Ozark National Forest – Supervisor's Office:

Rick Monk – Hydrologist
Shawn Cochran – Ecosystems Staff Officer
J. Keith Whalen – Forest Fisheries Biologist
Marvin L. Weeks – Forest Soil Scientist
Dr. David Jurney – Archeologist
Kathy King – Writer/Editor
Steve Duzan – Forest NEPA Coordinator

Ozark Highlands Trail Association

Mike LeMaster – President
Duane Woltjen – Maintenance

Arkansas Game and Fish Commission

A J Riggs – Wildlife Management Supervisor

Federal, Tribal, State, and Local Agencies:

Theo Witsell – Arkansas Natural Heritage Commission
Arkansas State Historic Preservation Office (SHPO)
US Forest Service Research
US Fish and Wildlife Service

Karen Kaniatobe THPO Absentee Shawnee Tribe of Oklahoma
Augustine Ashberry Alabama-Quassarte Tribal Town Historic Preservation Office
Darin Cisco Apache Tribe of Oklahoma Tribal Historic Preservation Office
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Historic Preservation Office Peoria Tribe of Oklahoma
Jack Shadwick Historic Preservation Officer Modoc Tribe of Oklahoma
Historic Preservation Officer Ponca Tribe of Oklahoma
Joyce Bear Historic Preservation Officer Muskogee (Creek) Nation
John Berry Tribal Historic Preservation Officer
Dr. Andrea Hunter Historic Preservation Officer Osage Nation
Sandra Massey Historic Preservation Officer Sac and Fox Nation of Oklahoma
Rhonda Dixon Historic Preservation Officer Ottawa Tribe of Oklahoma
Natalie Deere Historic Preservation Office Seminole Nation of Oklahoma
Richard Goulden Historic Preservation Officer Otoe-Missouri Tribe of Oklahoma
Chris Franks Historic Preservation Officer Seneca-Cayuga Tribe of Oklahoma
Frank Morris Repatriation Coordinator Pawnee Nation of Oklahoma
Historic Preservation Office Shawnee Tribe of Oklahoma
Historic Preservation Office Thlopthlocco Tribal Town
Josh Waffle Historic Preservation Officer Tonkawa Tribe of Oklahoma
Lisa Stopp Historic Preservation Officer United Keetoowah Band of Cherokee
Stratford Williams Historic Preservation Officer Wichita and Affiliated Tribes
Sherry Clemons Historic Preservation Officer Wyandotte Tribe of Oklahoma

Appendix A. Map

Appendix B

References Cited

Askins, Robert. Lynch, James F. & Greenberg, Russell. **"Population Declines in Migratory Birds in Eastern North America.** Plenum Press, New York, 1990.

Askins, R.A., M.J. Philbrick & D.S. Sugeno. **"Relationship Between the Regional Abundance of Forest and the Composition of Forest Bird Communities."** Biological Conservation, 11987,339:129-152.

Arkansas Department of Environmental Quality (2013). Fish Collection and Habitat Data Files Report for Sample ID #3H018 Big Piney Creek. Retrieved 2/3/2014 from the ADEQ website: www.adeq.state.ar.us

Arkansas Department of Environmental Quality (2013). Fish Collection and Habitat Data Files Report for Sample ID #3H030 Illinois Bayou. Retrieved 2/3/2014 from the ADEQ website: www.adeq.state.ar.us

Arkasas Forestry Commission (2002). *Best Management Practices for Water Quality Protection*. Little Rock, AR.

Arkansas Game and Fish Commission, **Arkansas Smallmouth Bass Management Plan**.

Bailey, M.A., J.N. Holmes, K.A. Buhlmann, and J.C. Mitchell. 2006. *Habitat Management Guidelines for Amphibians and Reptiles of the Southeastern United States.* Partners in Amphibian and Reptile Conservations Technical Publication HMG-2, Montgomery, Alabama. (88 pp.)

Bass, Sharon M.W. For The Trees: An Illustrated History of the Ozark-St.Francis Forests 1908-1978. USDA Forest Service,Southern Region. 1981.

Clingenpeel Alan J. & Michael A. Crump **Water Resource Analysis for Cumulative Effects V.1 10/17/2005**

Clingenpeel, J. Alan. Above and Below Storm Sampling BMP Effectiveness FY" 1989 Monitoring Results. Ouachita National Forest, Hot Springs, AR. 1989.

Commission for Environmental Cooperation [CEC]. 1997. Ecological regions of North America: toward a common perspective.

Crow, Thomas R. "**Biological Diversity and Silvicultural Systems**." Presented at National Silvicultural Workshop, Petersburg, AK 1989

Davis, Hester A. 1982 A State Plan for the Conservation of Archaeological Resources in Arkansas. Arkansas Archeological Survey Research Series 21. Arkansas Archeological Survey, Fayetteville.

Davis J V; Bell R W (1998). **Water quality assessment of the Ozark Plateaus Study Unit, Arkansas, Kansas, Missouri, and Oklahoma: Nutrients, bacteria, organic carbon, and suspended sediment in surface water.**

Dipert, Duane "**Method of Evaluating Soil Disturbance for Various Timber Harvest Alternatives**." USDA Forest Service. Ozark National Forest.

Dissmeyer, and Foster; "**Guide for Predicting Sheet and Rill Erosion on Forest Land, 1984**".

Douglas, James E. and Swank, Wayne T. 1975. Effects of Management Practices on Water Quality and Quantity: Coweeta Hydrologic Laboratory, North Carolina. Northeastern Forest Experiment Station, USDA Forest Service Gen. Tech. Rep. NE-13, pp. 1-13.

Fulton, S.; West, B. 2002. *Chapter 21:* **Forestry Impacts on Water Quality. USDA Southern forest resource assessment.** Gen. Tech. Rep. SRS-53. Wear, D.N.; Greis, J.G., eds.

Gaines, Glen D., Morris, Eddie. **The Southern National Forest's Migratory and Resident Landbird Conservation Strategy**. USDA Forest Service, Southern Region, Atlanta, GA. 1996

Gibbons, J.W. and Kurt A. Buhlmann (2001). Chapter 28. Reptiles and Amphibians. Wildlife of Southern Forests: Habitat and Management, James G. Dickson, Compilation and Editor. Surrey, British Columbia and Blaine, WA, Hancock House Publishers: 372-390.

Hamel, Paul B. The Land Manager's Guide to the Birds of the South. The Nature Conservancy and the U.S. Forest Service, Southern Region, Atlanta, GA. 1992.

Harmon, D., J.J. Lockhart, G. Sabo, III. 1996. From surveyor's chains to satellites: a study of historic environmental change and land use on the Lee Creek Unit of the Ozark National Forest, Crawford and Washington Counties, Arkansas. Arkansas Archeologic.

Hunter, Malcolm L. Jr. **Wildlife Forests, and Forestry**. Simon & Schuster Co. Englewood Cliffs, New Jersey. 1990.

Jacobson, Robert B.; Primm, Alexander T.1997 Historical land-use changes and potential effects on stream disturbance in the Ozark Plateaus, Missouri USGS Water Supply Paper: 2484

Jacobson, R.B. In Press. "**Downstream effects of timber harvest in the Ozarks of Missouri"**, *in:* Toward Sustainability for Missouri Forests, US Forest Service, NC Research Station General Technical Report.

Janetos, A.C., R.S. Chen, D. Arndt, and M.A. Kenney et al. 2012. **National Climate Assessment Indicators: Background, Development, & Examples.** Washington, DC: National Climate Assessment, U.S. Global Change Research Program.

Johnson, Leo J. "Natural Regeneration of an Oak-Hickory Forest." Paper presented at Natural Regeneration - A Mark Twain Seminar, 1985, pp. 39-49.

Johnson, Paul S. **"New Perspectives and the Silviculture of Oak-Dominated Forests in the Central and Eastern States."** North Central Forest Experiment Station, Columbia, MO.

Jurney, David H. , Gary Knudsen, Michael Pfeiffer, and Tom Foti.
2010 Heritage Resources Overview, Ozark-St. Francis National Forests, Arkansas. Heritage Resource Inventory Report Series 09-10-08-01. Ozark-St. Francis National Forests, Russellville, Arkansas.

Karl, T. R., J. M. Melillo and T. C. Peterson, 2009, **Global Climate Change Impacts in the United States,** National Science and Technology Council, Cambridge University Press.

Lawson, E.R. and Hileman, L.H. 1982. **Nutrient distributions in runoff from Ouachita Mountain watersheds.**

Lawson, E. R. 1980. **Water Management and Control of Soil Loss in Southern Upland Hardwood Stands.**

Lawson, E.R., Rogerson, Hileman, Leslie H., "**Nutrients in Storm Runoff from hardwood Forested Watersheds in the Ozark Highlands:.** 1985.

Leeds G. 1997. USDA Forest Service Ozark – St. Francis National Forest, Pleasant Hill Ranger District. Unpublished paper. 3 pp.

Lockhart, J. J., J.E. Hilliard, Jerry E., G. Sabo, III, D.A. Weddle. 1995. The evolution of human ecosystems in the Ozark National Forest, a pilot study of Lee Creek Unit. Arkansas Archeological Survey Project 876. Fayetteville, AR: AR Archeology

Lynch, J.A. and E.S. Corbett. 1990. **Evaluation of best management practices for controlling nonpoint pollution from silvicultural operations.** Water Resources Bulletin 26:41-52.

Maxwell, J.R.; Neary, D.G. 1991. **Vegetation Management Effects on Sediment Yields.**

McFarland John D., 2004. **Stratigraphic Summary of Arkansas by John David McFarland**, 2004, Arkansas Geological Survey (Commission) Information Circular 36.

Miller, E. and H.O. Liechty. 2001. **Arkansas forest survey data and its implication for water quality. In (Tech. Comp. J.M. Guldin) Proceedings of a Symposium on Arkansas Forest Resources**. Gen. Tech. Rep. SRS-48. Asheville, NC; USDA, For. Serv., South. Res. Station. pp 71-78.

Montgomery, D.R., and Buffington, J.M. 1993. "**Channel classification, prediction of channel response, and assessment of channel condition"**. Report TFW-SH10-93-002, University of Washington, Seattle.

Natural Resource Enterprises, Mississippi State University. (2011). *Species Description: Northern Bobwhite Quail.* Retrieved September 7, 2011, from http://www.naturalresources.msstate.edu/wildlife/northern-bobwhite-quail.html

NatureServe. 2006. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.1. NatureServe, Arlington, Virginia. Available http://www.natureserve.org/explorer. (Accessed: 2010).

NatureServe. 2011. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available http://www.natureserve.org/explorer. (Accessed: September 6, 2011).

Neary, D.G., G.G. Ice, C.R. Jackson. 2009. **Linkages between forest soils and water quality and quantity.** Forest Ecology and Management, 258: 2269-2281.

Neihardt, Charlene L. BMP Effectiveness Monitoring Using Above and Below Pebble Counts. Ouachita National Forest. Hot Springs, AR 1994.

Nuttall, Thomas **A Journal of Travels into the Arkansas Territory During the Year 1819**

Omernik, J.M. 1987. Ecoregions of the contreminous United States. Map (scale 1:7,500,000) revised August 2002. Annals of the Association of American Geographers 77:(1) 118-125

Ozark-St. Francis National Forests Soil Disturbance Monitoring FY 93 - FY 2007

Ozark-St. Francis National Forests: Forest Plan Monitoring and Evaluation Reports. Russellville, AR.

"Parks, Forests, and Public Property." 36 CFR 219.12. 2012.

Patric, James H.; Evans, James O.; Helvey, J. David. 1984. **Summary of Sediment Yield Data from Forested Land in the United States.**

Perkins, Kelly A. 2006. Cerulean Warbler Selection of Forest Canopy Gaps, Thesis submitted to the Davis College of Agriculture, Forestry, and Consumer Sciences, West Virginia University. Morgantown, West Virginia

Peterson, James; James Adamski; Richard Bell; Jerri Davis; Suzanne Femmer; David Freiwald; and Robert Joseph. 1999. Water quality in the Ozark Plateaus, Arkansas, Kansas, Missouri, and Oklahoma, 1992-95. U.S. Geological Survey. Circular 1158. 33p.

Pfankuch, D.J. 1975. Stream reach inventory and channel stability evaluation. U.S.D.A. Forest Service, Northern Region, Missoula, Montana.

Robbins, Chandler S., Dawson, Deanna K., Dowell, Barbara A. **Habitat Area Requirements of Breeding Forest Birds of the Middle Arlantic States**. Wildlife Monograph, The Wildlife Society, 1979, No. 103.USDA

Robison, H W., and Buchanan, T M. (1988). *Fishes of Arkansas.* Fayetteville: The University of Arkansas Press.

Sauer, J. R., J. E. Hines, and J. Fallon. 2005. The **North American Breeding Bird Survey, Results and Analysis 1966 - 2005**. Version 6.2.2006. *USGS Patuxent Wildlife Research Center*, Laurel, MD

Schoolcraft's Ozark Journal 1818-1819, **Rude Pursuits and Rugged Peaks**

Sealander, John A. and Gary A. Heidt. **Arkansas Mammals: Their Natural History, Classification and Distribution**. The University of Arkansas Press. Fayetteville, AR. 1990.

Semlitsch, Raymond D. 2003. *Amphibian Conservation*. Smithsonian Institution, USA. 324 pp.

Smith, Edwin B. **An Atlas and Annotated List of the Vascular Plants of Arkansas**, University of Arkansas, 1988.

Smith, Kimberly G., Neal, Joseph C. **Presettlement Birds and Mammals of the Interior Highlands**

Soil Survey of Newton County, Arkansas. USDA, Soil Conservation Service. 1988.

Soil Survey of Pope County, Arkansas. USDA, Soil Conservation Service. 1981.

Soil Survey of Searcy County, Arkansas. USDA, Soil Conservation Service. 1992.

Strahler, A.N. 1952. Hysometric (area-altitude) analysis of erosional topography. Bull. Geol. Soc. Am., 63: 1117-42.

Stednick, John D. 1996**. Monitoring the Effects of Timber Harvest on Annual Water Yield.** J of Hydro. 176:79-95.

Swenk F. and G. Wilhelm. 1974. Plants of the Chicago Region. The Morton Arboretum, Lisle, IL 922 pp.

Taylor, A. R., and R. L. Knight. 2003. **Wildlife responses to recreation and associated visitor perceptions. Ecological Applications.**

The Cornell Lab of Ornithology. (2011). *All About Birds*. Retreived September, 2011 from http://www.allaboutbirds.org

Thompson, III Frank R., Dijak, William D., Kulowiec, Thomas G., Hamilton, DavidA. "**Breeding Bird Populations in Missouri Ozark Forests With and Without Clearcutting**." Journal of Wildlife Management, 56(1), 1992.

Thompson, III Frank R., Dessecker, Daniel R. "Management of Early-Successional Communities in Central Hardwood Forests." USDA Forest Service. North Central Forest Experimental Station. Gen. Technical Report NC-195. 1997.

Thompson, III Frank R., Scott Robinson, Donal R. Whitehead, and Jeffrey D. Brawn. Management of Cenral hardwood Landscaped for the Conservation of Migratory Birds. USDA Forest Service. North Central Forest Experimental Station. 1998.

Tucker, Gary E. "**Presettlement Vegetation of the Ozark National Forest**." Proceedings of the Conference on Restoring Old Growth Forests in the Interior Highlands of Arkansas and Oklahoma, Morrilton, AR, 1991.

USDA Forest Service. **Final Environmental Impact Statement for the Revised Land and Resource Management Plan.** Ozark-St. Francis National Forest. Southern Region. Atlanta, GA. 2005.

USDA Forest Service. 2005. Revised Land and Resource Management Plan, Ozark National Forest. ROD, USDA Forest Service. 2005a. Revised Land and Resource Management Plan, Ouachita National Forest, Arkansas and Oklahoma. Forest Service, Southern Region, Management Bulletin R8-MB 124 A.

USDA Forest Service. 2005b. Final Environmental Impact Statement, Revised Land and Resource Management Plan, Ouachita National Forest, Arkansas and Oklahoma. Forest Service, Southern Region, Management Bulletin R8-MB 124 B.

USDA Forest Service (1999). Ozark-Ouachita Highlands Assessment: Aquatic Conditions. Southern Research Station General Technical Report SRS-33, Ashville, NC.

USDA Forest Service. 1999a. Ozark-Ouachita Highlands Assessment: Terrestrial Vegetation and Wildlife. General Technical Report SRS-35. p 201.

United States Department of Agriculture Forest Service. “Fiscal Years 2008 and 2009 Monitoring and Evaluation Report for the Land and Resource Management Plan, Ozark-St. Francis National Forests”. September 2010. (120 pp.)

U.S. Environmental Protection Agency. 2005. National Management Measures to Control Nonpoint Source Pollution from Forestry.

USFS. 1999. Ozark-Ouachita highlands assessment. Gen Tech Report SRS-33. Southern Research Station. Asheville, NC.

USFS. 2001. Management indicator species population and trends. Unpublished report on file at the District office, Jasper, AR.

United States Geological Society. 2003. Boundary Descriptions and Names of Regions, Subregions, Accounting Units and Cataloging Units. http://water.usgs.gov/GIS/huc_name.txt (April 14, 2003)

USGS, National Water-Quality Assessment Program; **Water-Quality Asessment of the Ozark Plateaus Study Unit, Arkansas, Kansas, Missouri, and Oklahoma--Fish Communities in Streams and Their Relations to Selected Environmental Factors**. Report 98-4155. 1999.

Van Lear, D.H.; Douglass, J.E.; Cox, S.K.; Auspurger, M.K. 1985. **Sediment and nutrient export in runoff from burned and harvested pine watersheds in the South Carolina Piedmont.** Journal of Environmental Quality. 14(2): 169–174.

Vestal, J. BMP Effectiveness Monitoring Using Above and Below Pebble Counts. Ouachita National Forest. Hot Springs, AR 2000.

Walters, Jody P. Intraspecific Habitat Segregation of Smallmouth Bass in the Buffalo River, Arkansas (Master's thesis). University of Arkansas, Fayetteville, AR, 1993.

Wheeler, G.L. and Eichman, J.K. The Effects of Forest Management Practices on Soil Nutrient Status. A Final Report to the U.S. Forest Service Ouachita National Forest.

Wigley, T. Bently, Jr.; Dressel, Armin T. "**Wildlife and Biological Diversity in Arkansas Forests**." Technical Briefing Paper #3. Society of American Foresters, Arkansas Division. July, 1991.

Wiken 1986, Omernik 1987, (Commission for Environmental Cooperation [CEC] 1997)
Wiken, E. 1986. Terrestrial ecozones of Canada. Environment Canada. Ecological Land Classification Series No. 19. Ottawaa.
Wischmeier, W. H. 1962. **Storms and soil conservation. J. Soil and Water Conservation**

Woods, A.J., J.M. Omernik, D.D. Brown and C.W. Kiilsgaard. 2004. Level III and IV ecoregions of Pennsylvania and the Blue Ridge Mountains, the Ridge and Valley and Central Appalachians of Virginia, WVirginia and Maryland. EPA/600/R-96/077.

Appendix C

Public Involvement

To encourage public participation in the **Fairview Campground Decommission Project** decision process, a project initiation letter including maps were mailed to 47 neighboring landowners, the Native American Tribes, and other interested parties, explaining the project proposal on June 13, 2014. They were asked to comment on, or involve themselves in, the proposed project, and were informed about the kinds of decisions to be made. The project was also published in the Ozark- St. Francis National Forest Schedule of Proposed Actions and on the Forest planning website. An initial scoping letter was also published in Russellville's *The Courier* (The Official Paper of Record for the Big Piney Ranger District) on June 15th, 2014 requesting comments, questions, and offering detailed information to those expressing an interest in the project. No letters were returned as undeliverable.
The project initiation effort resulted in three responses (1 from a Native American Tribe and 2 from members of the public). All interested parties who responded to our public involvement efforts will receive a notice informing them that the Draft EA is ready for review.

Internally, the Interdisciplinary (ID) Team met to develop the Proposed Action and the Alternatives which were analyzed in the EA. The ID team developed "Key Issues" from meetings and public input. A "Key Issue" is an issue for which an alternative would be developed and considered in detail.

A conference call was conducted between the Big Piney District Ranger and the Ozark Highlands Association (the proposal could affect the trail) in June of 2014. The result of that call was District trail specialists met with members of the Ozark Highlands Trail Association at the Fairview trailhead to relocate a portion of the trail approximately 0.2 tenths of a mile long.

On July 24, 2015 a legal notice was published in Russellville's *The Courier* inviting comments for 30 days on the Draft Environmental Assessment. Additionally, cover letters announcing the 30 day comment period were mailed to three members of the public who had responded to the project initiation letter. Comments were received for 30 days with no comments received. One commenter submitted a comment but it was not considered because direction in the notice on how to submit timely comments was not followed.

A copy of the legal notice and cover letter can be found in the process file at the office in Jasper.