

APPENDICES

**APPENDIX A. HISTORIC VEGETATION MAP – PEA
RIDGE NATIONAL MILITARY PARK**

**APPENDIX B. VEGETATION MANAGEMENT PLAN
TOOLS AND METHODS**

Available on the PEPC website at:
<http://parkplanning.nps.gov/projectHome.cfm?projectID=42064>

APPENDIX C. CONSULTATION LETTERS



United States Department of the Interior
NATIONAL PARK SERVICE

Pea Ridge National Military Park
P.O. Box 700
Pea Ridge, AR 72751-0700

IN REPLY REFER TO:
H42 (PERI-VMP)

August 13, 2012

Mr. George McCluskey
Senior Archeologist and Section 106 Coordinator
The Arkansas Historic Preservation Program
1500 Tower Building 323 Center Street
Little Rock, AR. 72201

Dear Mr. McCluskey,

Pea Ridge National Military Park (PERI), National Park Service, plans to develop a Vegetation Management Plan and associated Environmental Assessment (VMP/EA) for the park. The VMP/EA is an implementation document identifying treatments by vegetative type within the park to achieve desired resource conditions and visitor experiences as identified in PERI's General Management Plan Environmental Impact Statement, 2006, (GMP), digital copy attached. The GMP identifies four management zones, two of which are pertinent to this VMP/EA, the "Arkansas Highlands," and "Pea Ridge Battleground."

The park is comprised of 4,300 acres and is broken into two units. The main unit contains 4,244 acres; the detached area consists of 56 acres. The administrative area, 12 acres, is located in the main unit and includes the visitor center, administrative and maintenance buildings, and associated parking and mowed areas. The remainder of the park is comprised of the Arkansas Highlands and Pea Ridge zones.

The Arkansas Highlands is in the physiographic zone known as the Ozark Plateau. This zone, as identified in the GMP, makes up approximately 3,216 acres of the park and includes hardwood forests, small prairies, tableland, rocky highlands, narrow valleys, and deep ravines. Management objectives in this area, per the GMP, are to reestablish the natural landscape features of the Ozark Plateau. Prairies are to be maintained or restored and woodlands are to be preserved or reestablished in areas cleared for agriculture prior to park establishment.

The Pea Ridge Battleground management zone consists of the remaining 25% of the park, 1072 acres, and contains historic fields, forests, and prairie. Management objectives for this

zone focus on retaining and enhancing the historic character of the landscape that defined the 1862 era Pea Ridge battlefield.

The primary objective of both management zones is the restoration, preservation, and maintenance of the cultural landscape, circa 1862, such that the landscape characteristics that defined the way the battle unfolded are attained.

As such, this VMP/EA will identify specific treatments by location in each management zone to achieve then maintain this objective.

Currently, of the 4,300 acres, the park contains 1,000 acres of solid stands of Eastern Red Cedar, 540 acres of historic fields, 240 acres identified as forest in 1862 but cleared for agriculture prior to park establishment, 70 acres of reestablished prairie, 12 acres of administrative areas, 22 acres in paved roads, approximately 2 acres in parking lots, 30 acres of mowed grass, and 2,384 acres of mixed hardwoods.

Government Land Office notes (1837, 1838, and 1842) were utilized, in corporation with first-hand accounts, a base map of 1862 fields and roads, a park-wide archeological assessment, and other associated records to identify fields, forests, and vegetation stand and structure of the park circa 1862. Additionally, the leading historian on the Battle of Pea Ridge, Dr. William L. Shea was consulted and comments and suggestions incorporated so that all of the information could be compiled to produce a historic vegetative base map, attached. This vegetative base map will provide the backdrop, spatially and compositionally, to identify a point of beginning for project locations and management actions in all alternatives of the VMP/EA.

Thus, this implementation plan/project will provide specific management actions of historic fields, forests, fallow fields, stands of Eastern Red Cedar, and possibly the relocation and/or abandonment and mitigation of modern hiking and horse trails through these vegetative types.

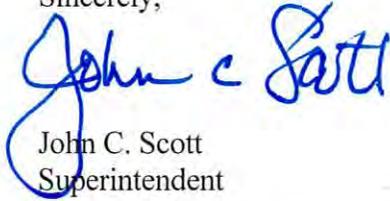
This letter will serve as a record that the NPS is initiating consultation pursuant to 36 CFR 800.2 .c.1.

The following enclosed documents provide additional information about the existing conditions and park guiding document(s):

1. Pea Ridge National Military Park General Management Plan
2. Historical Land Cover/Use Classification of Pea Ridge NMP (Historic Vegetative Base Map)
3. 1940 Aerial Map of Pea Ridge National Military Park
4. 2011 Aerial Map of Pea Ridge National Military Park
5. Cultural Landscape Inventory
6. Project Area Map

Please respond to Kevin Eads, Chief of Resource Management, at (479) 451-8122 extension 239, if you have any questions or concerns about this request, or if you require additional information.

Sincerely,



John C. Scott
Superintendent

Enclosures



United States Department of the Interior
NATIONAL PARK SERVICE

Pea Ridge National Military Park
P.O. Box 700
Pea Ridge, AR 72751-0700

IN REPLY REFER TO:
H42 (PERI-VMP)

January 29, 2013

Mr. George McCluskey
Senior Archeologist and Section 106 Coordinator
The Arkansas Historic Preservation Program
1500 Tower Building 323 Center Street
Little Rock, AR. 72201

Dear Mr. McCluskey,

The National Park Service (NPS) commenced compliance with Section 106 of the National Historic Preservation Act of 1966 (NHPA) for the proposed Vegetation Management Plan and Environmental Assessment (VMP/EA) at Pea Ridge National Military Park, Benton County, Arkansas in a letter initiating consultation with your office dated August 13, 2012. As a follow on to that letter, the NPS wishes to notify the SHPO that it plans to coordinate compliance with the requirements of both the National Environmental Policy Act (NEPA) and Section 106 of the NHPA pursuant to 36 CFR Part 800.8(c).

The VMP will provide specific management actions for historic fields, forests, fallow fields, stands of Eastern Red Cedar, and possible abandonment and mitigation of modern trails through vegetation management. The NPS intends to use the VMP/EA to document compliance with Section 106. If effects of an undertaking on historic properties are found to be adverse, the VMP/EA will identify measures to avoid, minimize, or mitigate such effects in accordance with 36 CFR Part 800.8(c)(1)(v). The VMP/EA will be sent to your office for review and comment upon completion of the assessment. The Finding of No Significant Impact (FONSI) for the VMP/EA will identify implementation of such measures as a condition of approval of the action, will demonstrate the Park's compliance with Section 106, and shall govern the undertaking and all of its parts.

Please respond to Kevin Eads, Chief of Resource Management, at (479) 451-8122, extension 239, if you have any questions or concerns about this notification, or if you require additional information.

Sincerely,

For: John C. Scott
Superintendent



United States Department of the Interior
NATIONAL PARK SERVICE

Pea Ridge National Military Park
P.O. Box 700
Pea Ridge, AR 72751-0700

IN REPLY REFER TO:
H42 (PERI-VMP)

October 22, 2013

Mr. Reid Nelson
Director, Office of Federal Agency Programs
Advisory Council on Historic Preservation
1100 Pennsylvania Avenue, NW, Suite 803
Old Post Office Building
Washington, DC 20004

Dear Mr. Nelson,

Pea Ridge National Military Park (PERI), National Park Service, is in the process of developing a Vegetation Management Plan and associated Environmental Assessment (VMP/EA) for the park. The VMP/EA is an implementation document identifying treatments by vegetative type within the park to achieve desired resource conditions and visitor experiences as identified in PERI's General Management Plan Environmental Impact Statement, 2006, (GMP). The GMP identifies four management zones, two of which are pertinent to this VMP/EA, the "Arkansas Highlands," and "Pea Ridge Battleground."

The park is comprised of 4,300 acres and is broken into two units. The main unit contains 4,244 acres; the detached area consists of 56 acres. The administrative area, 12 acres, is located in the main unit and includes the visitor center, administrative and maintenance buildings, and associated parking and mowed areas. The remainder of the park is comprised of the Arkansas Highlands and Pea Ridge zones.

The Arkansas Highlands is in the physiographic zone known as the Ozark Plateau. This zone, as identified in the GMP, makes up approximately 3,216 acres of the park and includes hardwood forests, small prairies, tableland, rocky highlands, narrow valleys, and deep ravines. Management objectives in this area, per the GMP, are to reestablish the natural landscape features of the Ozark Plateau. Prairies are to be maintained or restored and woodlands are to be preserved or reestablished in areas cleared for agriculture prior to park establishment.

The Pea Ridge Battleground management zone consists of the remaining 25% of the park, 1072 acres, and contains historic fields, forests, and prairie. Management objectives for this zone focus on retaining and enhancing the historic character of the landscape that defined the 1862 era Pea Ridge battlefield.

The primary objective of both management zones is the restoration, preservation, and maintenance of the cultural landscape, circa 1862, such that the landscape characteristics that defined the way the battle unfolded are attained.

As such, this VMP/EA will identify specific treatments by location in each management zone to achieve then maintain this objective.

Currently, of the 4,300 acres, the park contains 1,000 acres of solid stands of Eastern Red Cedar, 540 acres of historic fields, 240 acres identified as woodland and/or savanna in 1862 but cleared for agriculture prior to park establishment, 70 acres of reestablished prairie, 12 acres of administrative areas, 22 acres in paved roads, approximately 2 acres in parking lots, 30 acres of mowed grass, and 2,384 acres of mixed hardwoods.

Government Land Office notes (1837, 1838, and 1842) were utilized, in corporation with first-hand accounts, a base map of 1862 fields and roads, a park-wide archeological assessment, and other associated records to identify fields, forests, and vegetation stand and structure of the park circa 1862. Additionally, the leading historian on the Battle of Pea Ridge, Dr. William L. Shea was consulted and comments and suggestions incorporated so that all of the information could be compiled to produce a historic vegetative base map. This vegetative base map will provide the backdrop, spatially and compositionally, to identify a point of beginning for project locations and management actions in all alternatives of the VMP/EA.

The NPS wishes to notify the ACHP that it plans to coordinate compliance with the requirements of both the National Environmental Policy Act (NEPA) and Section 106 of the NHPA pursuant to 36 CFR Part 800.8(c).

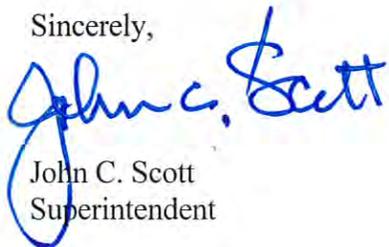
The VMP will provide specific management actions for historic fields, forests, fallow fields, stands of Eastern Red Cedar, and possible abandonment and mitigation of modern trails through vegetation management. The NPS intends to use the VMP/EA to document compliance with Section 106. If effects of an undertaking on historic properties are found to be adverse, the VMP/EA will identify measures to avoid, minimize, or mitigate such effects in accordance with 36 CFR Part 800.8(c)(1)(v). The VMP/EA will be sent to your office for review and comment upon completion of the assessment. The Finding of No Significant Impact (FONSI) for the VMP/EA will identify implementation of such measures as a condition of approval of the action, will demonstrate the Park's compliance with Section 106, and shall govern the undertaking and all of its parts. To that end, the Arkansas State Historic Preservation Office has been notified and had no comment.

The following enclosed documents provide additional information about the existing conditions and park guiding document(s):

1. Pea Ridge National Military Park General Management Plan
2. Project Area Map

Please respond to Kevin Eads, Chief of Resource Management, at (479) 451-8122 extension 239, if you have any questions or concerns about this request, or if you require additional information.

Sincerely,



John C. Scott
Superintendent

Enclosures

Federally Recognized Tribes for Consultation for Pea Ridge NMP

- (1) ABSENTEE SHAWNEE TRIBE**
- (2) CHEROKEE NATION OF OKLAHOMA**
- (3) CHOCTAW NATION OF OKLAHOMA**
- (4) THE OSAGE NATION**
- (5) SHAWNEE TRIBE OF OKLAHOMA**
- (6) QUAPAW TRIBE OF OKLAHOMA**
- (7) UNITED KEETOOWAH BAND OF CHEROKEE INDIANS**
- (8) THE CHICKASAW NATION**
- (9) MUSCOGEE (CREEK) NATION OF OKLAHOMA**

CHEROKEE NATION OF OKLAHOMA
P. O. Box 948
Tahlequah, OK 74465
Physical Address (Overnight Mail): 17675 S. Muskogee
Tahlequah, OK 74465
918-453-5000 or 1-800-256-0671
918-458-5580 FAX
WEB SITE: www.cherokee.org
MR. Bill John Baker, PRINCIPAL CHIEF
E-MAIL: chad-smith@cherokee.org
MR. JOE GRAYSON, JR., DEPUTY CHIEF
E-MAIL: joe-grayson@cherokee.org
DR. RICHARD ALLEN, POLICY ANALYST AND NAGPRA/SECTION 106 REVIEW CONTACT
PHONE: 918-453-5466
E-MAIL: Richard-Allen@cherokee.org

CHOCTAW NATION OF OKLAHOMA
P.O. Box 1210
Durant, OK 74702-1210
580-924-8280 or 1-800-522-6170
580-920-3181 FAX
WEB SITE: www.choctawnation.com
MR. GREGORY E. PYLE, CHIEF
MR. GARY BATTON, ASSISTANT CHIEF
MR. TERRY COLE, TRIBAL HISTORIC PRESERVATION OFFICER & NAGPRA PROGRAM COORDINATOR
PHONE: EXT. 2137
E-MAIL: tcole@chowtawnation.com
MR. OLIN WILLIAMS, SENIOR HERITAGE RESOURCE TECHNICIAN

ABSENTEE SHAWNEE TRIBE
2025 S. Gordon Cooper
Shawnee, OK 74801
405-275-4030
405-878-4711 FAX
WEB SITE: www.astribe.com
MR. GEORGE BLANCHARD, GOVERNOR
MR. DAN LITTLEAXE, LT. GOVERNOR
MS. HENRIETTA ELLIS, TRIBAL HISTORIC PRESERVATION OFFICER
PHONE: EXT. 199
E-MAIL: kkaniatobe@astribe.com

Federally Recognized Tribes for Consultation for Pea Ridge NMP

THE OSAGE NATION

P.O. Box 779
Pawhuska, OK 74056
Physical Address: 627 Grandview
Pawhuska, OK 74056
918-287-5555
918-287-5562 FAX
Museum: 918-287-5358
WEB SITE: www.osagetribe.com
MR. JOHN D. RED EAGLE, PRINCIPAL CHIEF
E-MAIL: jredeagle@osagetribe.org
MR. SCOTT BIGHORSE, ASSISTANT
PRINCIPAL CHIEF
E-MAIL: sbighorse@osagetribe.org
Dr. Andrea A. Hunter, Director, Tribal Historic
Preservation Officer
PHONE: 918-287-5671
FAX: 918-287-5376
E-MAIL: ahunter@osagetribe.org

QUAPAW TRIBE OF OKLAHOMA

Tribal Headquarters:
P.O. Box 765
Quapaw, OK 74363
918-542-1853 or 1-888-642-4724
918-542-4694 FAX
WEB SITE: www.quapawtribe.com
MR. JOHN BERREY, TRIBAL CHAIRPERSON
E-MAIL: john.berrey@QDSLCC.com
MS. JEAN ANN LAMBERT, TRIBAL HISTORIC
PRESERVATION OFFICER
E-MAIL: jlambert@quapawtribe.com

SHAWNEE TRIBE OF OKLAHOMA

Physical address: 29 S. Hwy. 69A
Miami, OK 74354
Mailing address: P.O. Box 189
Miami, OK 74355
29 South 69A Highway
Miami, OK 74354
918-542-2441
918-542-2922 FAX
WEB SITE: www.shawnee-tribe.com
MR. RON SPARKMAN, CHAIRMAN
E-MAIL: shawneetribe@neok.com
Ms. Kim Jumper, Historic Preservation Department
E-MAIL: kjumper_shawneetribe@hotmail.com

**UNITED KEETOOWAH BAND OF
CHEROKEE INDIANS**

P.O. Box 746
Tahlequah, OK 74465
918-456-6533
918-431-1873 FAX
WEB SITE: www.unitedkeetoowahband.org
MR. GEORGE WICKLIFFE, CHIEF
MR. CHARLES LOCUST, ASSISTANT CHIEF
MS. LISA LARUE, HISTORIC PRESERVATION
COORDINATOR
PHONE: 918-772-4389
E-MAIL: llarue@unitedkeetoowahband.org

Federally Recognized Tribes for Consultation for Pea Ridge NMP

THE CHICKASAW NATION

2020 Arlington, Suite 4

P.O. Box 1548

Ada, OK 74821-1548

580-436-2603

580-436-7297 FAX

WEB SITE: www.chickasaw.net

MR. BILL ANOATUBBY, GOVERNOR

MR. JEFFERSON KEEL, LT. GOVERNOR

MS. LADONNA BROWN, HISTORIC

PRESERVATION OFFICER

PHONE: 580-272-5593

FAX: 580-272-5327

E-MAIL: ladonna.brown@chickasaw.net

**MUSCOGEE (CREEK) NATION OF
OKLAHOMA**

P.O. Box 580

Okmulgee, OK 74447

918-756-8700 or 1-800-482-1979 or 918-732-7600

or 918-732-7604

918-758-1434 (ADMINISTRATION)

WEB SITE: www.muscogeenation-nsn.gov

MR. A.D. ELLIS, PRINCIPAL CHIEF

800-482-1979, ext. 7605 or 918-732-7605

E-MAIL: adellis@muscogeenation-nsn.gov

MR. TED ISHAM, CULTURAL

PRESERVATION OFFICE MANAGER

800-482-1979 ext. 7731 or 918-732-7731

E-MAIL: preservation@muscogeenation-nsn.gov

-MAIL: tisham@muscogeenation-nsn.gov



United States Department of the Interior
NATIONAL PARK SERVICE

Pea Ridge National Military Park
15930 US Hwy. 62 East
Garfield, AR 7232

IN REPLY REFER TO:
H42 (PERI-VMP)

September 18, 2012

Mr. Bill John Baker, Principal Chief
Cherokee Nation of Oklahoma
P.O. Box 948
Tahlequah, OK 74465

Dear Principal Chief Baker:

Pea Ridge National Military Park (PERI), National Park Service, plans to develop a Vegetation Management Plan and associated Environmental Assessment (VMP/EA) for the park. The VMP/EA is an implementation document identifying treatments by vegetative type within the park to achieve desired resource conditions and visitor experiences as identified in PERI's General Management Plan Environmental Impact Statement, 2006, (GMP), digital copy attached. The GMP identifies four management zones, two of which are pertinent to this VMP/EA, the "Arkansas Highlands," and "Pea Ridge Battleground."

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Currently, of the 4,300 acres, the park contains 1,000 acres of solid stands of Eastern Red Cedar, 540 acres of historic fields, 240 acres identified as forest in 1862 but cleared for agriculture prior to park establishment, 70 acres of reestablished prairie, 12 acres of administrative areas, 22 acres in paved roads, approximately 2 acres in parking lots, 30 acres of mowed grass, and 2,384 acres of mixed hardwoods.

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Thus, this implementation plan/project will provide specific management actions of historic fields, forests, fallow fields, stands of Eastern Red Cedar, and possibly the relocation and/or abandonment and mitigation of modern hiking and horse trails through these vegetative types.

This letter serves as notification and invites your participation, through consultation with the National Park Service, in the analysis of potential environmental impacts from a variety of alternatives focusing on vegetation management for the restoration and preservation of the 1862 landscape, and in the development of a final implementation plan.

We invite you to participate in informal consultation with the park early in the process and to review and comment on the draft Plan/EA, during the designated comment period. If you express an interest, via a written response to this letter, future documents will be made available for your review and comment. We will also notify you when the review period opens for the EA.

The following enclosed documents provide additional information about the existing conditions and park guiding document(s):

1. Pea Ridge National Military Park General Management Plan
2. Historical Land Cover/Use Classification of Pea Ridge NMP (Historic Vegetative Base Map)
3. 1940 Aerial Map of Pea Ridge National Military Park
4. 2011 Aerial Map of Pea Ridge National Military Park

5. Cultural Landscape Inventory
6. Project Area Map

Please respond to Kevin Eads, Chief of Resource Management, at (479) 451-8122 extension 239, or email at kevin_eads@nps.gov if you have any questions or concerns about this request, or if you require additional information.

Sincerely,



John C. Scott
Superintendent

Enclosures

CC:

Dr. Richard Allen, Policy Analyst and NAGPRA/Section 106 Review, Cherokee Nation of Oklahoma



Choctaw Nation of Oklahoma

P.O. Box 1210 • Durant, OK 74702-1210 • (580) 924-8280

Gregory E. Pyle
Chief

Gary Batton
Assistant Chief

December 3, 2012

COPY

John C. Scott
National Park Service
Pea Ridge National Military Park
15930 US Hwy, 62 East
Garfield, AR 7232

RE: Pea Ridge Military Park, development of a Vegetation Management Plan and EA for the Park, Benton County, AR.

Dear Mr. Scott,

Thank you for your correspondence regarding the above referenced project. Benton County is outside of the Choctaw Nation of Oklahoma historic area of interest. We respectfully defer to the other Tribes that have been contacted.

Please feel free to contact me with any questions or concerns.

Sincerely,

Dr. Ian Thompson
Director, Historic Preservation Department
THPO, Tribal Archaeologist, NAGPRA Specialist
Choctaw Nation of Oklahoma
PO Drawer 1210
Durant, OK 74701

By:


Johnnie Jacobs
Section 106 Coordinator



COPY

TRIBAL HISTORIC PRESERVATION OFFICE

Date: December 14, 2012

File: 1213-782AR-10

RE: NPS Pea Ridge National Military Park Vegetation Management Plan in Benton County, Arkansas

Pea Ridge National Military Park
John F. Scott
15930 Hwy 62 East
Garfield, AR 72732

Dear Mr. Scott,

The Osage Nation Historic Preservation Office has received notification and accompanying information for the proposed project listed as NPS Pea Ridge National Military Park Vegetation Management Plan in Benton County, Arkansas. **The Osage Nation requests a copy of the Environmental Impact Statement.**

In accordance with the National Historic Preservation Act, (NHPA) [16 U.S.C. 470 §§ 470-470w-6] 1966, undertakings subject to the review process are referred to in S101 (d)(6)(A), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 of NHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969).

The Osage Nation has a vital interest in protecting its historic and ancestral cultural resources. **The Osage Nation anticipates reviewing and commenting on the planned Environmental Impact Statement for the proposed NPS Pea Ridge National Military Park Vegetation Management Plan in Benton County, Arkansas.**

Should you have any questions or need any additional information please feel free to contact me at the number listed below. Thank you for consulting with the Osage Nation on this matter.

Barker Fariss, Ph.D.
Archaeologist I

Pea Ridge National Military Park
Consultation Meeting
On-going Environmental Assessments

Monday, May 6, 2013, 3:00PM CST

Mrs. Lisa LaRue-Baker
United Keetoowah Band of Cherokee Indians
Historic Preservation Officer

Kevin Eads
Pea Ridge National Military Park
Chief of Resources Management

Nolan Moore
Pea Ridge National Military Park
Biologist

Topics Discussed:

- (1) Proposed 48 mile long 345 kV transmission line construction by Southwestern Electric Power Company (SWEPCO)
 - Discussed the impacts on the view shed of the park by the proposed routes as well as the impacts to the Trail of Tears and other historic features within the proposed route(s) outside of the park. In addition, we briefly discussed the park's intent to send a letter to SWEPCO outlining our concerns and that we would carbon copy Mrs. LaRue-Baker.
 - Result: Mrs. LaRue-Baker was going to research the proposed route and documentation to determine a course of action for the United Keetoowah Band of Cherokee Indians and would collaborate with the park on this issue.

- (2) Exotic Plant Management Plan Environmental Assessment
 - Briefly discussed what this plan entailed and what was being planned at the park.
 - Result: No concerns or issues were raised.

- (3) Highway 62 Mitigation Environmental Assessment
 - Summarized events leading up to the point of the Mitigation EA and some of the documents resulting from those events. Discussed, in brief, the archeological survey that was conducted the previous two weeks.
 - Result: No concerns or issues were raised.

(4) Location(s) where regiments of Cherokee fought during the Civil War Battle and where the Trail of Tears, and associated encampment areas were in the park.

- Identified on an aerial map of the park the locations where the two regiments of Cherokee fought, and the location of the Trail of Tears and the associated encampment locations. We also talked about the vegetative components within these areas and what they would have looked like during the battle to give an idea of what actions would need to be taken to restore and then maintain them.
- Result: Mrs. LaRue-Baker identified these locations as areas of interest and recommended the development of a NAGPRA plan of action for any project involving ground disturbance in these areas. Further discussion on the plan of action resulted in a collaborative effort where we will work together to develop a plan. A draft plan will be mailed to Mrs. LaRue-Baker for recommendations. The park will then revise the draft and mail it to all identified tribes for review. Additionally, the park will create a map of these areas for inclusion into associated environmental assessments. Mrs. LaRue-Baker also asked that the NPS be diligent in Section 106 consultations involving this property.

(5) Vegetation Management Plan Environmental Assessment

- Reviewed the General Management Plan (GMP) for the park and the methodology behind management actions over the last 10 years to provide a background for why the Vegetation Management Plan was needed and built upon as well as what management actions could be anticipated as a result of its completion and implementation. Examples given included removal of cedar, reforestation of non-historic fields, options for field management that will come out in the different alternatives, glade management, current condition of forests and their subsequent potential management actions, restoration of a stream associated with the Trail of Tears, and the influence of interpretive programs and techniques on this EA around the park.
- Result: No concerns or issues were raised other than the need of a NAGPRA plan of action in the identified areas.

(6) Cultural Landscape Report (CLR) Environmental Assessment

- Briefly talked about the upcoming CLR, how, similar to the Vegetation Management Plan (VMP), it will flow from the GMP and will focus on key areas not covered by the VMP. Examples given included the Trail of Tears route, Elkhorn Tavern, and Leetown Hamlet. In addition, we discussed how the intent was to include the VMP in the CLR so that a useable document would result. We also covered inclusion of the selected Highway Mitigation EA alternative into the CLR.

Because of the above-discussed topics there were several action items identified for the park, listed below. All of the listed items were completed on 5/7/2013.

Action Items – Pea Ridge NMP:

- (1) Provide a hard copy of the General Management Plan (GMP)
- (2) Provide a hard copy of “Pea Ridge Civil War Campaign in the West” by William Shea and Earl Hess.
- (3) Forward email about SWEPCO
- (4) Provide digital copies of maps, documents and data on the Highway 62 Mitigation EA, and background data that contain the following;
 - Pea Ridge National Military Park (PERI) GMP
 - Mitigation EA project area map
 - 1940 Aerial Photograph of Pea Ridge NMP
 - 2011 Aerial Photograph of Pea Ridge NMP
 - Cultural Landscape Inventory
 - Mitigation EA proposed Alternative A
 - Mitigation EA proposed Alternative B
 - Mitigation EA proposed Alternative C
 - Mitigation EA proposed Alternative D
 - Arkansas Highway Transportation Department Environmental Assessment Avoca to Gateway, NEPA Study (Highway 62)
 - Finding of No Significant Impact - Arkansas Highway Transportation Department Environmental Assessment Avoca to Gateway, NEPA Study (Highway 62)
 - De Minimis Impacts to Section 4(F) Property for Public Parks, Recreation Lands, and Wildlife and Waterfowl Refuges
 - PERI Programmatic Agreement – regarding the construction of Avoca to Gateway (HWY 62)
 - Scope of Work – Geophysical Evaluation of the Proposed Alternatives for the Highway 62 Re-alignment Project within Pea Ridge National Military Park, Benton County, Arkansas
 - Draft NAGPRA Plan of Action Pea Ridge National Military Park – Geophysical and Archeological Investigations of Four Alternative Tour Road and Parking Lot Modifications Associated with the Federal Highway Administration’s Construction Mitigation of Park Impacts from Re-routing of Highway 62



United States Department of the Interior
NATIONAL PARK SERVICE

Pea Ridge National Military Park
P.O. Box 700
Pea Ridge, AR 72751-0700

IN REPLY REFER TO:
D50-10 (PERI-VMP)

August 15, 2012

Mr. Jim Boggs
Field Supervisor
Arkansas Field Office
U.S. Fish and Wildlife Service
110 S. Amity Road, Suite 300
Conway, AR. 72032

Dear Mr. Boggs,

Pea Ridge National Military Park (PERI), National Park Service, plans to develop a Vegetation Management Plan and associated Environmental Assessment for the park. PERI is located in Benton County in Northwest Arkansas; map attached, and is contained primarily within the Pea Ridge, Arkansas USGS Quadrangle with a small portion residing in the Garfield, Arkansas Quadrangle. Specifically, PERI is located in the following Township(s), Range(s), and Section(s) in the aforementioned Quadrangles:

- (1) Township: 20 North, Range: 29 West, Sections 3, 2, 10.
- (2) Township: 21 North, Range: 29 West, Sections 21, 22, 23, 25, 26, 27, 28, 33, 34, 35, and 36.
- (3) Township: 21 North, Range: 28 West, Sections 30, 31.

The Vegetation Management Plan and associated Environmental Assessment (VMP/EA) is an implementation document identifying treatments by vegetative type within the park to achieve desired resource conditions and visitor experiences as identified in PERI's General Management Plan Environmental Impact Statement, 2006, (GMP). The GMP identifies four management zones, two of which are pertinent to this VMP/EA, the "Arkansas Highlands," and "Pea Ridge Battleground."

The park is comprised of 4,300 acres and is broken into two units. The main unit contains 4,244 acres; the detached area consists of 56 acres. The administrative area, 12 acres, is located in the main unit and includes the visitor center, administrative and maintenance

buildings, and associated parking and mowed areas. The remainder of the park is comprised of the Arkansas Highlands and Pea Ridge zones.

The Arkansas Highlands is in the physiographic zone known as the Ozark Plateau. This zone, as identified in the GMP, makes up approximately 3,216 acres of the park and includes hardwood forests, small prairies, tableland, rocky highlands, narrow valleys, and deep ravines. Management objectives in this area, per the GMP, are to reestablish the natural landscape features of the Ozark Plateau. Prairies are to be maintained or restored and woodlands are to be preserved or re-established in areas cleared for agriculture prior to park establishment.

The Pea Ridge Battleground management zone consists of the remaining 25% of the park, 1072 acres, and contains historic fields, forests, and prairie. Management objectives for this zone focus on retaining and enhancing the historic character of the landscape that defined the 1862 era Pea Ridge battlefield.

The primary objective of both management zones is the restoration, preservation, and maintenance of the cultural landscape, circa 1862, such that the landscape characteristics that defined the way the battle unfolded are attained.

As such, this VMP/EA will identify specific treatments by location in each management zone to achieve then maintain this objective.

Currently, of the 4,300 acres, the park contains 1,000 acres of solid stands of Eastern Red Cedar, 540 acres of historic fields, 240 acres identified as forest in 1862 but cleared for agriculture prior to park establishment, 70 acres of reestablished prairie, 12 acres of administrative areas, 22 acres in paved roads, approximately 2 acres in parking lots, 30 acres of mowed grass, and 2,384 acres of mixed hardwoods.

Winton Spring and its associated, unnamed creek, totaling 1,642 feet, and seven ephemeral stream channels totaling 37,302 feet are contained within the 4,244 acres of the main unit. The 56 acre detached area is bounded by Little Sugar creek on the southern end, 1,696 feet, and contains 1,028 feet of ephemeral creek channel.

Government Land Office notes (1837, 1838, and 1842) were utilized, in corporation with first-hand accounts, a base map of 1862 fields and roads, a park-wide archeological assessment, and other associated records to identify fields, forests, and vegetation stand and structure of the park circa 1862. Additionally, the leading historian on the Battle of Pea Ridge, Dr. William L. Shea was consulted and comments and suggestions incorporated so that all of the information could be compiled to produce a vegetative base map. This vegetative base map will provide the backdrop, spatially and compositionally, to identify a point of beginning for project locations and management actions in all alternatives of the VMP/EA.

The Heartland Inventory and Monitoring Network (I&M) is in the process of completing a vegetation map of existing conditions. Accuracy assessments have been completed and

a final map will be produced by the end of 2012. This map will provide the data necessary to determine the point of departure from existing conditions to those identified in the historic vegetative base map. This information will then be utilized in the determination of management actions by alternative.

Thus, this project will provide specific management actions of historic fields, forests, fallow fields, stands of Eastern Red Cedar, and possibly the relocation and/or abandonment and mitigation of modern hiking and horse trails through these vegetative types.

The following list of species is identified as being found in Benton County, Arkansas.

<u>Species</u>	<u>Fed Status</u>
Benton Ozark Cavefish (<i>Amblyopsis rosae</i>)	LT
Cave Crayfish (<i>Cambarus aculabrum</i>)	LE
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	BGEPA
Gray Bat (<i>Myotis grisescens</i>)	LE
Indiana Bat (<i>Myotis sodalis</i>)	LE
Ozark Big-Eared Bat (<i>Corynorhinus townsendii ingens</i>)	LE
Neosho Mucket (<i>Lampsilis rafinesqueana</i>)	Cand.
Arkansas darter (<i>Etheostoma cragini</i>)	Cand.
Rabbitsfoot (<i>Quadrula cylindrica cylindrica</i>)	Cand.
Piping Plover (<i>Charadrius melodus</i>)	LT

LT = Listed threatened, LE = Listed Endangered, Cand. = Candidate species, BGEPA = Bald and Golden Eagle Protection Act protected

None of these species has been documented on the park (GMP, Fire Management Plan) nor have any of these species, with the exception of the Bald Eagle, been sighted by park staff or recorded through I&M studies or inventories.

The following enclosed documents provide additional information about the existing conditions and park guiding document(s):

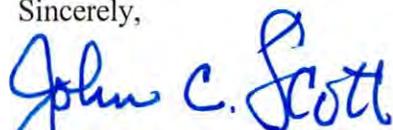
1. Pea Ridge National Military Park General Management Plan
2. Pea Ridge National Military Park Fire Management Plan
3. Project Area Map

This letter constitutes initiation of informal consultation under section 7(c) of the Endangered Species Act for the Vegetation Management Plan and associated Environmental Assessment for Pea Ridge National Military Park. No adverse effects to listed species are expected as a result of the proposed action. Bald eagles do not nest in the project area and no other species has been identified as residing in the park. Based on

this information, the attached GMP/EIS, of which this project is an implementation document, and the attached FMP, Pea Ridge National Military Park has made a no effect determination concerning this project.

Please respond to Kevin Eads, Chief of Resource Management, at (479) 451-8122 extension 239, if you have any questions or concerns about this request, or if you require additional information.

Sincerely,



John C. Scott
Superintendent,

Enclosures

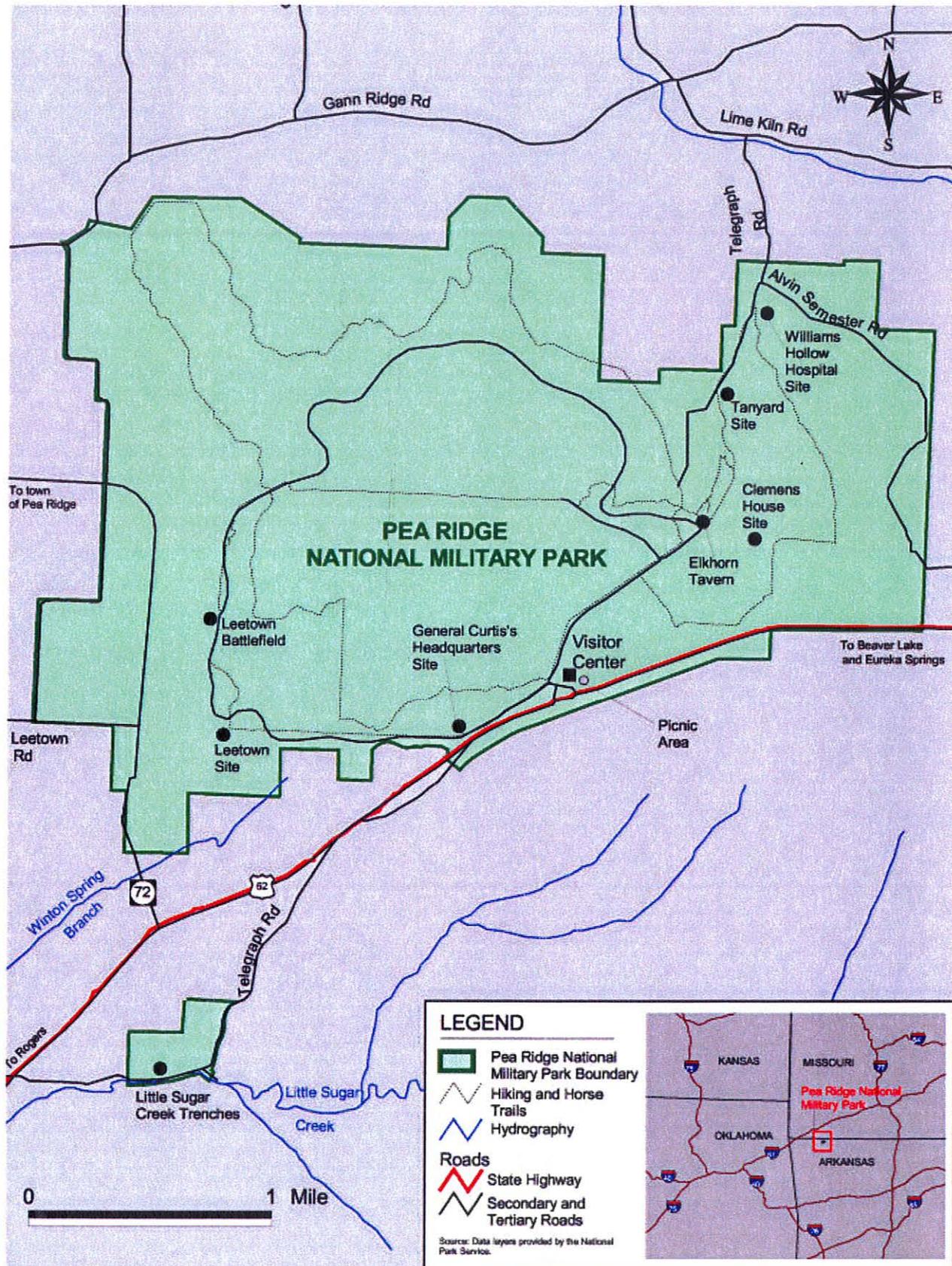
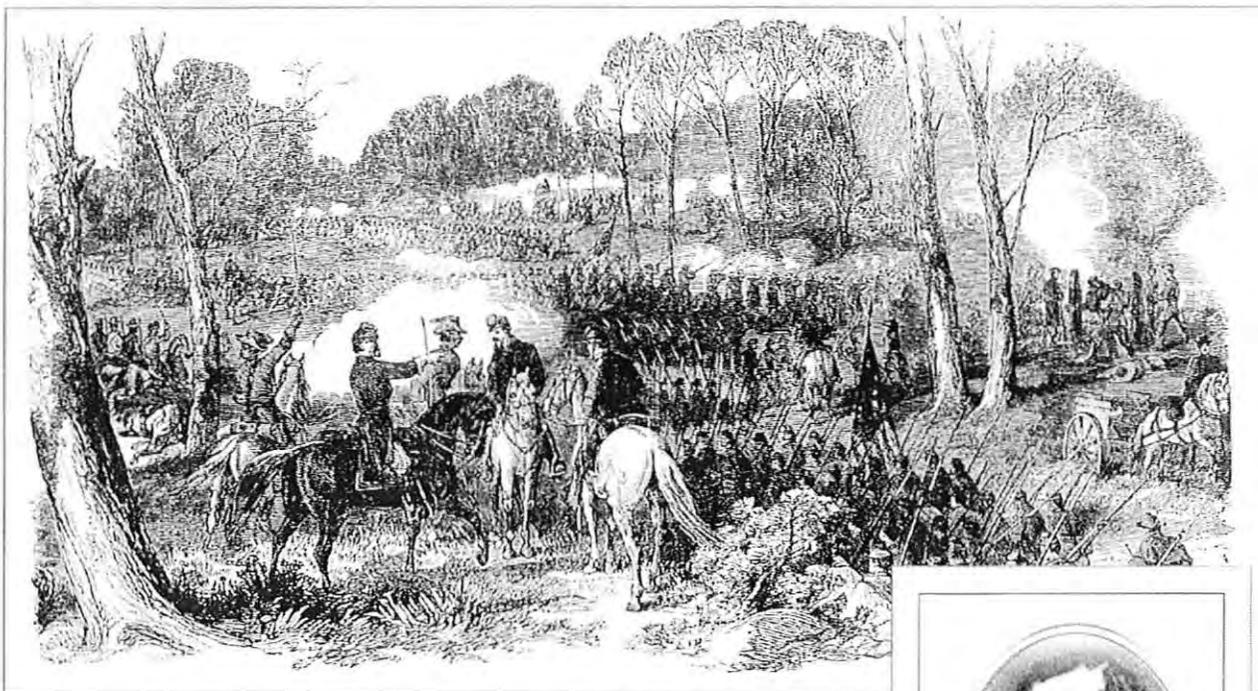


Figure 1 – Pea Ridge National Military Park Vicinity Map



Draft
General Management Plan
Environmental Impact Statement

PEA RIDGE NATIONAL MILITARY PARK



NATURAL RESOURCES

SPECIAL STATUS SPECIES

The National Park Service consulted with the U.S. Fish and Wildlife Service and the Arkansas Natural Heritage Commission to obtain current lists of Special Status Species that could occur in the park. The U.S. Fish and Wildlife Service identified one threatened and three endangered species that could occur in the park (see table 5).

TABLE 5: THREATENED AND ENDANGERED SPECIES

Common Name	Scientific Name	Status
Ozark cavefish	<i>Amblyopsis rosae</i>	Threatened
Cave crayfish	<i>Cambarus aculabrum</i>	Endangered
Gray bat	<i>Myotis grisescens</i>	Endangered
Indiana bat	<i>Myotis sodalis</i>	Endangered

The cave crayfish (*Cambarus aculabrum*) and Ozark cavefish (*Amblyopsis rosae*) require karst streams with pools. There are no known karst streams in the park. The gray bat (*Myotis grisescens*) requires well-developed caves providing specific temperatures for roosting, hibernacula, and maternity. The Indiana bat (*Myotis sodalis*) typically uses limestone caves with midwinter temperatures between 37 and 43 degrees Fahrenheit for hibernation. Hibernating colonies of the Indiana bat disperse in late March and most migrate to more northern habitat for the summer.

The Arkansas Natural Heritage Commission conducted a survey of the park for plants of special concern 2001 (ANHC 2001). That survey identified two occur-

rences of the Ozark chinquapin, a member of the chestnut family, the lobed spleenwort (*Asplenium pinnatifidum*), and Ashe's juniper (*Juniperus ashei*). Although none of these species are considered endangered or threatened by the state, they are uncommon or have conservation concerns. Ozark chinquapin is affected by the chestnut blight. Most of these trees persist as stump sprouts with few producing fruit. Ash's juniper and the lobed spleenwort are on the periphery of their ranges in Arkansas. A single specimen of Kentucky spleenwort (*Asplenium X kentuckiense*) was recorded in the park in 1943. It is the exceedingly rare hybrid of *A. pinnatifidum* and *A. platyneuron*. The plant was not found in the 2001 survey. Both progenitors occur in the park and it is possible that the plant grows in the park. There are no state wildlife or fish special status species in the park.

NPS policy directs that all species listed as threatened or endangered be identified and protected, and that listed species that are native to a park unit be recovered. Policy also directs the Park Service to inventory, monitor, and manage state and locally listed special status species in a manner similar to the treatment afforded federally listed threatened and endangered species.

The identified species and their habitat requirements were reviewed to determine the presence of threatened or endangered species. There are no suitable cave habitats for the four federally listed threatened or endangered species. In earlier surveys the Ozark chinquapin was found growing in the park.

PLANT COMMUNITIES

The park is on the Springfield Plateau, which is a component of the larger Ozark Plateau. Rolling hills, narrow hollows, and broad uplands define the landscape. The predominant climax vegetation type is oak-hickory forest. Historic documentation describes much of the landscape as wooded except for the Round Prairie area and areas cleared for cultivation. Climax vegetation communities include post oak/blackjack oak, black oak, mixed oak (white oak, black oak, and post oak), and white oak. Disturbed sites are forested by eastern red cedar.

Pea Ridge was the home of an agricultural community during the Civil War. After the war agriculture expanded, resulting in additional clearing. Since the park was established, cleared land, other than that in agricultural use at the time of the battle has been allowed to revert to woodland. Fire, a natural element influencing the landscape, decreased in frequency, a direct result of the policy of suppression. Fire reduces the frequency of shade tolerant species and maintains the oak-hickory composition.

Vegetation at Pea Ridge National Military Park is a mosaic of second growth oak-hickory forest with some mature oak-hickory interspersed, and woodland, prairie plantings, and fescue fields with numerous nonnative species intermixed. Each vegetation type exhibits various stages of succession. Composition and density vary in accordance with historic and current use patterns or fire frequency

and suppression. Some areas have a high density of red cedar, a manifestation of succession from open field or open woodland without the benefit of fire to control this plant. Some of these areas were cleared after the battle but reverted to forest when agricultural use ended. Fields cultivated at the time of the battle have been maintained by planting with domestic grasses for agricultural purposes.

The Park Service has initiated a vegetation management program for Pea Ridge. The program includes management treatments such as prescribed fire and the use of herbicides to accelerate succession and manage plant community structure and composition.

WETLANDS

There are limited surface water sources within Pea Ridge National Military Park. There are several streams that originate in the park, and a number of stock ponds, which are remnants from agricultural practices prior to park establishment. The actions considered in the alternatives would have a negligible effect on surface or ground water within the park.

However, there is the potential that former and potential wetlands may be found in the Leetown area. If historic drainage patterns are restored as a result of implementation of the management zones, these wetlands could be restored. This would impact approximately 100 acres in the park.

Pea Ridge National Military Park

Pea Ridge, Arkansas

Fire Management Plan
Environmental Assessment



April 2005



U.S. Department of the Interior
National Park Service



opportunities for enjoyment of the park, and (3) identified as a goal in the park's plans or other Park Service planning documents. Indeed, Alternatives 1 and 2 are likely to have beneficial effects on the Park's wildlife resources.

3.5 THREATENED AND ENDANGERED SPECIES

3.5.1 *Affected Environment*

No Federal threatened or endangered species of plants or animals are documented at Pea Ridge National Military Park (Dikeman, 2001). However, three listed species do occur on adjacent lands: the endangered gray bat (*Myotis grisescens*), Indiana Bat (*Myotis sodalis*) and the endangered Ozark cavefish (*Amblyopsis rosae*). The bald eagle (*Haliaeetus leucocephalus*) has also been frequently sighted on adjacent lands.

- Gray Myotis – Most members of the known surviving populations of this species are concentrated in only nine cave hibernacula each winter, where they are extremely vulnerable to human disturbance. Exceptionally cold caves are needed for hibernation and exceptionally warm caves for the rearing of young. Human disturbance and vandalism of these critical caves, along with the adverse effects of siltation and pollution of waterways over which the bats feed, resulted in a precipitous 80% decline in total gray myotis numbers in under two decades. In 1976, this bat was one of the first to be listed as Endangered by the U.S. Fish and Wildlife Service (USFWS). Since the gray bat was listed, several critical hibernation and maternity caves have been gated, leading to stable and growing populations in many areas (BCI, 2002).

- The Indiana bat (*Myotis sodalis*) was listed as endangered throughout its range in March 1967. There are currently about 500,000 individuals of this species in existence. It is a medium size myotis, closely resembling the little brown bat (*Myotis lucifugus*). The Indiana bat occurs in the Midwest and eastern United States. Its historic range extends from the western edge of the Ozark region in Oklahoma to southern Wisconsin, east to Vermont, and south to northern Florida. In winter, the bat hibernates in limestone caves with a preferred temperature range of from 37 to 43 degrees Fahrenheit. The bat typically forms tight clusters on the cave ceiling during hibernation. In summer the females and young generally roost in trees with scaly or sloughing bark. The females and young forage in and around riparian and floodplain trees. Males may roost under bridges, in old buildings, or in caves and tend to forage over floodplain ridges and hillside forests. Foraging areas average 11.2 acres per animal in midsummer. The bat typically leaves its hibernaculum in late March and migrates north to its summer habitat. The bats begin returning to their hibernation area in August, and feed heavily through September and October before entering hibernation by late November.

The decline in the species population has been attributed to commercialization of roosting caves, wanton destruction by vandals, disturbances caused by increased numbers of spelunkers and bat banding programs. Some winter hibernacula have been rendered unsuitable as a result of blocking or impeding air flow into the caves and thereby changing the cave's climate. The Indiana bat is nearly extinct over most of its former range in the northeastern states, and since 1950, the major winter colonies in caves of West Virginia, Indiana, and Illinois have disappeared. A high degree of aggregation during winter makes the species vulnerable. During this period approximately 87 percent of the entire population hibernates in only seven caves.

- Ozark cavefish – This small, colorless, blind fish lives its entire life in springs, cave streams, and underground waters. It is well-adapted to the cave environment, living most or all of its life in total darkness. It also has a relatively restricted range. Water pollution, habitat destruction, human disturbance, and collection have placed the Ozark cavefish's survival in jeopardy (CCM, 2000).

- Bald eagle – The bald eagle was listed by the USFWS in the 1970's as a result of drastically declining numbers from habitat destruction, poaching, but primarily pesticide poisoning, which thinned eggshells and decimated the species' reproduction. Since the banning of DDT and other organochlorine insecticides in the 1970's and 1980's, this species has been making a gradual comeback throughout North America, and has subsequently been de-listed.

In addition to the above Federally-listed species, which are found not on the park proper but on adjacent lands, one variety of species of vascular plants have been documented in the park itself which is listed by the Arkansas Natural Heritage Commission as an Inventory Element and is a state listed species: the Ozark chinquapin (*Castanea pumila* var. *ozarkensis*). The Ozark chinquapin grows in oak-pine and oak-hickory forests on relatively dry, acidic soils on ridge tops and upper slopes adjacent to ravines (ONH, 1999). It is endemic to the Ozark Plateau region of Arkansas, Missouri and Oklahoma. Currently, this variety of chinquapin is threatened by the same chestnut blight (caused by the fungus *Endothia parasitica* brought to the U.S. in 1904) which decimated the American chestnut in the Appalachians. The Ashe's juniper (*Juniperus ashei*), which is also listed by the Arkansas Natural Heritage Commission, may occur on the park. It typically grows in upland hardwood areas around glades, generally restricted to limestone-dolomite outcrops.

3.5.2 *Environmental Consequences*

Impacts to threatened and endangered species from the alternative FMP's were qualitatively assessed by means of a literature review of the effects of fire on these species, consultation with biologists and agencies, and professional judgment.

3.5.2.1 Alternative 1 – No Action

None of the Federally-listed species known to occur on adjacent lands is likely to be adversely affected by the suppression efforts, mechanical thinning, and prescribed fire associated with this alternative. Conceivably, smoke from prescribed fires could temporarily cause bald eagles, gray bats and Indiana bats to move away toward cleaner air, but this effect would be transitory and not severe. The possibility of prescribed fire escaping the park and causing direct or indirect harm to either of these species is negligible. Any Ozark cavefish occurring on adjacent lands in springs or caves would not likely to be adversely affected in any way.

Chinquapins are a fire adapted species. They may be topkilled by a fire, particularly smaller individuals, but they sprout vigorously following the fire (Silker 1957). Prescribed fires should have minimal impact on the population. Individuals of this species would be avoided in mechanical treatments.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

110 South Amity Road, Suite 300

Conway, Arkansas 72032

Tel.: 501/513-4470 Fax: 501/513-4480

IN REPLY REFER TO:

September 5, 2012

Mr. Kevin Eads
Chief of Resources Management
Pea Ridge National Military Park
P.O. Box 700
Pea Ridge, Arkansas 72251-0700

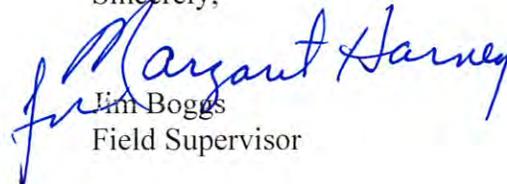
Dear Mr. Eads:

The Fish and Wildlife Service (Service) has reviewed your letter and attached information for the Vegetation Management Plan for the Pea Ridge National Military Park, Benton County, Arkansas. Our comments are submitted in accordance with the Fish and Wildlife Coordination Act (FWCA; 16 U.S.C. 661-667e) and the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.).

Listed species in Benton County, Arkansas evaluated in the documents included the endangered Indiana, gray, and Ozark Big-eared bats, and cave crayfish, the threatened Ozark crayfish, and piping plover, candidate Neosho mucket, rabbitsfoot and Arkansas darter, and the bald eagle. The Service concurs with your determination that the proposed management plan will have no effect on listed species.

We appreciate the opportunity to provide these comments.

Sincerely,


for
Jim Boggs
Field Supervisor