

## Chapter 1. Introduction

### Introduction

1 This document presents the Cultural  
 2 Landscape Report and Environmental  
 3 Assessment (CLR/EA) for Big Spring Historic  
 4 District (BSHD) within the Ozark National  
 5 Scenic Riverways (OZAR) in southeast  
 6 Missouri.  
 7  
 8 This CLR/EA presents detailed  
 9 documentation of Big Spring Historic  
 10 District's historical development, an  
 11 evaluation of existing condition, analysis of  
 12 landscape characteristics, and an assessment  
 13 of contributing features and integrity.  
 14  
 15 This work builds upon the numerous studies,  
 16 investigations and documents that already  
 17 exist for Big Spring Historic District. These  
 18 include the General Management Plan  
 19 (GMP) / Environmental Impact Statement  
 20 (EIS), 2016 Cultural Landscape Inventory  
 21 (2016 CLI), the 1981 National Register of  
 22 Historic Places (NRHP) nomination, Historic  
 23 Structures Report (HSR) for the Dining Lodge  
 24 and Help's Quarters (Dining Lodge) (HS-422),  
 25 and several other plans and resource reports.  
 26  
 27 The National Park Service (NPS) uses the  
 28 CLR/EA as the primary treatment document  
 29 for significant cultural landscapes. It is  
 30 also a primary document used to guide  
 31 management and stewardship of BSHD.  
 32 The intent of the CLR/EA is to establish  
 33 a philosophy and a framework to guide  
 34 treatment to enhance resource condition  
 35 and visitor experience, support interpretive  
 36 programming, and streamline compliance for  
 37 implementation.  
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### Study Area and Landscape Character Areas

1 The Big Spring Historic District is a  
 2 component of Ozark National Scenic  
 3 Riverways. It is located in the OZAR's  
 4 southeast corner, in Carter County, Missouri,  
 5 four miles south of the town of Van Buren.  
 6 The study area encompasses the site of the  
 7 former Big Spring State Park initially built by  
 8 the Missouri State Park Board beginning in  
 9 1924, then intensely developed by the Civilian  
 10 Conservation Corps (CCC) between 1933 and  
 11 1937 and the Works Progress Administration  
 12 (WPA) between 1938 and 1941.  
 13  
 14 The study area encompasses the acreage of  
 15 Big Spring Historic District as designated  
 16 in the NRHP, and expands the area to 5,580  
 17 acres to include all components of the CCC/  
 18 WPA designed landscape. The BSHD is in the  
 19 Ozark Highlands, set adjacent to the Current  
 20 River. The study area is surrounded by steep  
 21 forested hills of oak and hickory, laced with  
 22 streams and rivers. Manicured lawn grasses  
 23 occur in the level areas. The BSHD's location  
 24 on Big Spring branch and the Current River,  
 25 with Big Spring as the main attraction, is a  
 26 popular destination. It continues to draw  
 27 a wide range of visitors who participate in  
 28 recreational activities from hiking, camping,  
 29 river recreation, picnicking, to scenic drives  
 30 and interpretive programs.  
 31  
 32 The boundaries of BSHD extend from the  
 33 Entrance Building (HS-432) on Peavine Road  
 34 / State Highway 103 east to the Current  
 35 River; north to Peavine Pavilion (HS-428),  
 36 inclusive of Big Spring and the CCC-built  
 37 system of Big Spring Stone Dikes (HS-711);  
 38 and south along State Highway Z, inclusive  
 39 of Chubb Hollow and the May/Winters  
 40 Quarters (HS-444). In the center is the  
 41 historic core, the most intensely developed  
 42 area that includes the Dining Lodge (HS-422),  
 43 cabins, and maintenance facilities. On the

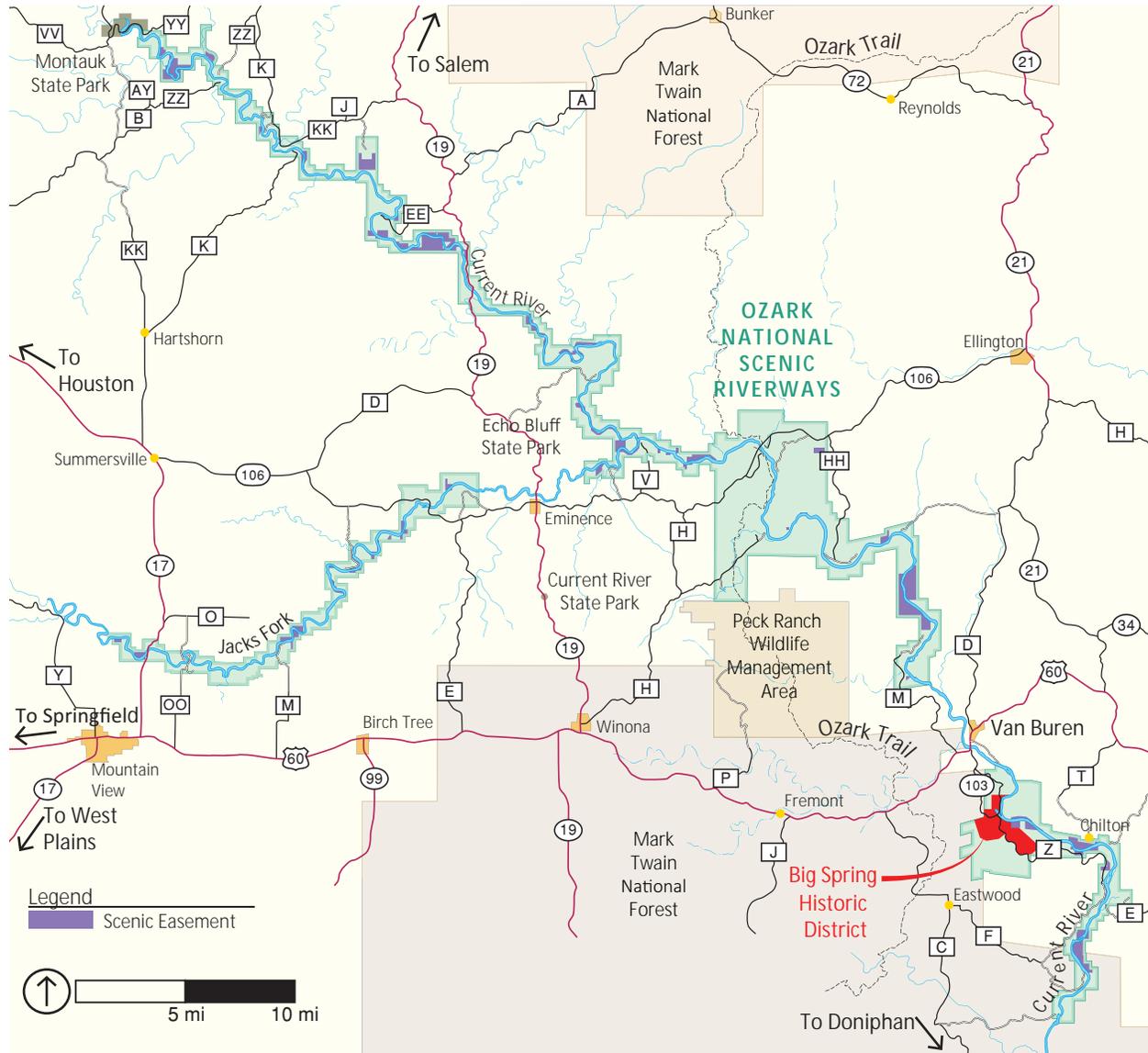


Figure 1-1. The Big Spring Historic District is a component of Ozark National Scenic Riverways. The study area was initially developed by the Missouri State Park Board beginning in 1924, and was extensively expanded by the CCC and WPA between 1933 and 1941. (Mundus Bishop, adapted from NPS OZAR Map)

1 west is the site of the CCC Dump, consisting  
 2 of several acres within a broad wooded  
 3 valley. Most of the southern part of the study  
 4 area, extending south past Fire Tower Trail,  
 5 consists of rugged, steep forested hillsides.  
 6 In this area the CCC established their camp,  
 7 and built a network of trails and primitive  
 8 roads supporting forest management and  
 9 fire suppression. Portions of the study area  
 10 are located within a proposed federally-  
 11 designated Wilderness Area plus Missouri  
 12 state-designated “Big Spring Pines Natural  
 13 Area” and “Big Springs Natural Area”.

14  
 15 The Big Spring Historic District is an  
 16 outstanding example of CCC and WPA Rustic  
 17 style architecture and Naturalistic landscape  
 18 design. The study area is significant for  
 19 its sensitive design and construction that  
 20 epitomizes the ideals of subordinating  
 21 development to the natural and scenic  
 22 character of the environment. For the study  
 23 area, this resulted in minimal disruption of  
 24 natural topography and a blending of man-  
 25 made structures with natural surroundings.  
 26 The natural landscape outside the intensive-  
 27 use areas was preserved and set aside for  
 28 wildlife and recreation. A cohesive aesthetic  
 29 was attained throughout the study area  
 30 through the use of on-site natural materials,  
 31 expert hand craftsmanship and local  
 32 construction techniques, and designs that  
 33 adapted to the local climate. Subsequent  
 34 development has been fairly minimal,  
 35 allowing the historic character and rich  
 36 narrative of Big Spring Historic District to  
 37 remain intact.

38  
 39 The significance of the Big Spring Historic  
 40 District was recognized by its listing in the  
 41 NRHP on M 17, 1981. It is significant in the  
 42 areas of architecture, landscape architecture,  
 43 and conservation, with two distinct periods  
 44 of significance—1925 to 1927 and 1933  
 45 to 1937. Initially defined as a 315 acre  
 46 rectangular area that included Big Spring

1 and the cluster of historic buildings and  
 2 infrastructure built to facilitate recreation,  
 3 the NRHP nomination expanded the  
 4 historic district to 3,456 acres. The 2016  
 5 CLI expanded the period of significance  
 6 and modified the acreage and boundary  
 7 of the BSHD to holistically address the  
 8 continuum of development that began with its  
 9 establishment, and continued through state  
 10 ownership and management. The proposed  
 11 period of significance is 1924 to 1969, ending  
 12 with the acquisition of the state park by the  
 13 NPS. The proposed boundary eliminates the  
 14 acreage east of the Current River as no park  
 15 development occurred on the eastern side,  
 16 and expands the boundary to include miles  
 17 of trails built by the CCC, and the former state  
 18 wildlife refuge and associated structures. In  
 19 the 2016 CLI the acreage of the proposed  
 20 historic district is expanded to 3,966 acres.<sup>1.1</sup>

21  
 22 The Big Spring Historic District includes  
 23 many historic and contributing buildings,  
 24 structures, and other features. These  
 25 include a county road system; an extensive  
 26 trail network; an intensely developed core  
 27 development area with the Entrance Building  
 28 (HS-432), State Park Museum Building  
 29 (Museum) (HS-420), Pump House (HS-443),  
 30 Dining Lodge (HS-422), Latrine (HS-423),  
 31 and fifteen cabins; the developed area of Big  
 32 Spring; three pavilion sites (Chubb Hollow  
 33 Open Shelter House (HS-427), Big Spring  
 34 Pavilion (HS-425), and Peavine Pavilion (HS-  
 35 428)); the sites of the largely non-extant CCC

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 1.1 *Big Spring Historic District, Cultural Landscapes Inventory*,  
 National Park Service, U.S. Department of the Interior,  
 2016. This area does contain the remnant rail-bed of  
 the Atlantic and Pacific Railroad, which transported CCC  
 workers and supplies to Big Spring; however, it is more  
 accurate to classify that area as an adjacent contributing  
 landscape rather than as part of Big Spring. Also, none  
 of the former Big Spring State Park property north of  
 the Peavine Pavilion is included because comprehensive  
 redevelopment undertaken by the NPS in the 1970s  
 completely changed the character and function of that  
 portion of the landscape. It was converted from an airfield  
 to a campground.

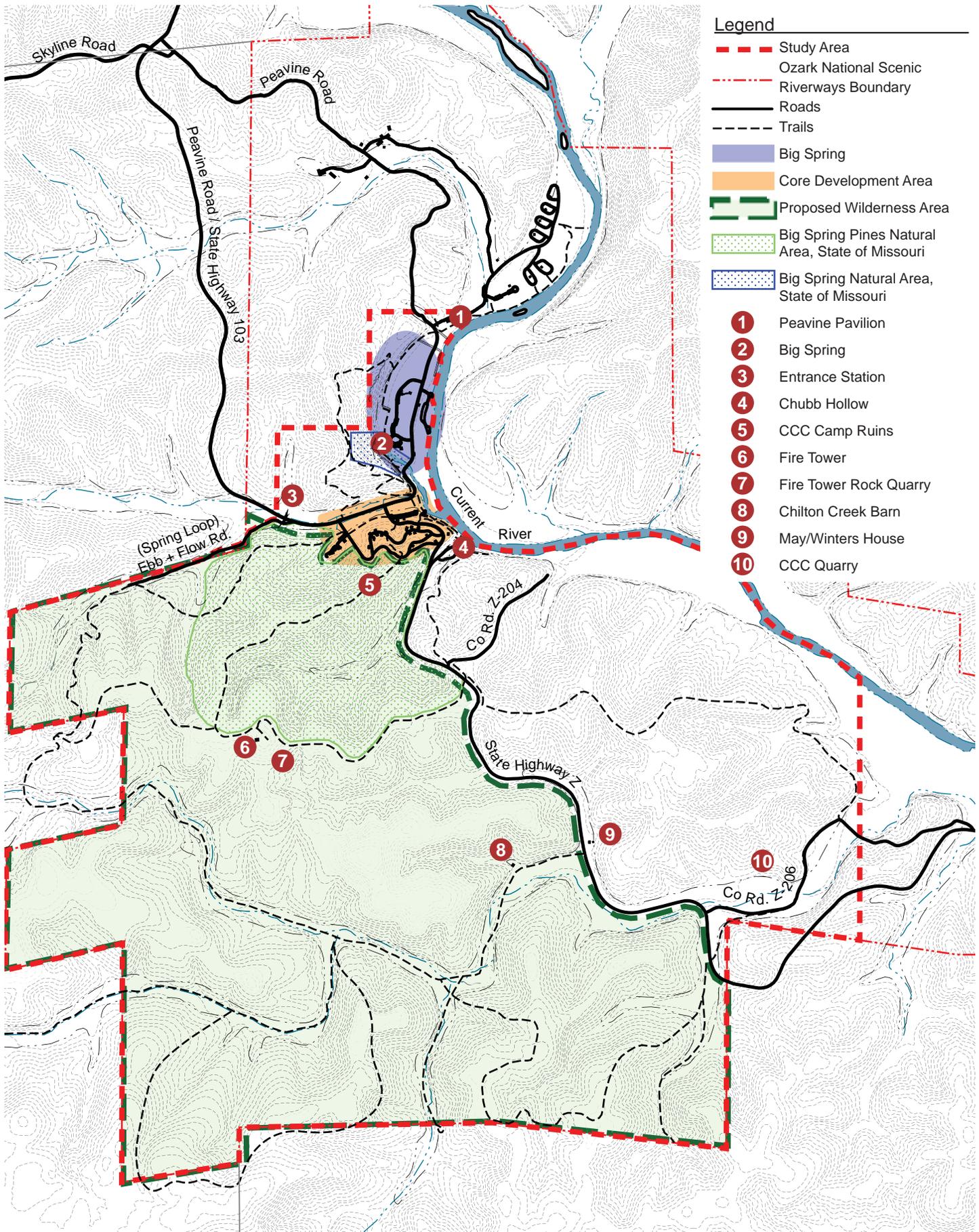
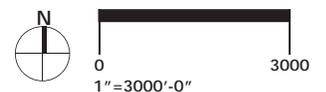


Figure 1-2. The Study Area includes the broader cultural landscape, including natural systems, topography, and roads and trails. {Topography compiled from 2016 USGS mapping, and GIS Data provided by NPS.} (Mundus Bishop 2015).



1 Camp Ruins and CCC Rock Quarry (HS-700);  
 2 the CCC Dump; the historic wildlife game  
 3 refuge; and the Fire Tower / Lookout Tower  
 4 (HS-1404).

5  
 6 The cultural landscape is described in  
 7 three sections: the study area, the core  
 8 development area, and Big Spring. This  
 9 organization allows for an overall description  
 10 of the entire 3,966 acreage with detailed  
 11 descriptions for the areas of the most  
 12 intensely developed portions of Big Spring  
 13 Historic District. Two landscape character  
 14 areas, the core development area and Big  
 15 Spring, have features and relationships that  
 16 distinguish them from the remainder of the  
 17 BSHD.

#### 18 19 **Study Area**

20  
 21 The study area includes the broader cultural  
 22 landscape of the hills, river, roads, trails, and  
 23 features located outside of the two landscape  
 24 character areas. The two CCC Quarries, the  
 25 CCC Camp Ruins, the CCC Dump, the Fire  
 26 Tower / Lookout Tower (HS-1404), and  
 27 Chilton Creek Barn (HS-467), May / Winter  
 28 Quarters (HS-444), and Peavine Pavilion  
 29 (HS-428) are included in this section. Key  
 30 landscape characteristics of the study area  
 31 include spatial organization, topography, land  
 32 use, circulation, and natural systems.

#### 33 34 **Core Development Landscape Character Area**

35  
 36 The core development landscape character  
 37 area (core development area) represents  
 38 the area within Big Spring Historic District  
 39 most intensely developed by the CCC and  
 40 WPA between 1933 and 1941. Built as an  
 41 active visitor and recreational use area,  
 42 major facilities include the Entrance Building  
 43 (HS-432), Latrine (HS-423), Museum (HS-  
 44 420), Pump House (HS-443), Dining Lodge  
 45 (HS-422), and fifteen cabins and recreational  
 46 spaces. The core development area generally

1 extends from the Entrance Building on the  
 2 west to the Current River on the east, and  
 3 from the Latrine on the north to the hillside  
 4 where the cabins are clustered on the south.  
 5 Key landscape characteristics include cluster  
 6 arrangement, topography, circulation,  
 7 vegetation, and spatial relationships  
 8 between use areas. The associated network  
 9 of county roads and CCC-built trails, and the  
 10 Maintenance Area are included, as is Chubb  
 11 Hollow.

#### 12 13 **Big Spring Landscape Character Area**

14  
 15 The Big Spring landscape character area  
 16 includes the natural formation of Big Spring  
 17 and its immediate surroundings. One of the  
 18 largest natural springs in the United States,  
 19 Big Spring is the signature feature of this  
 20 character area. The spring is surrounded  
 21 by natural ridges and rock outcroppings on  
 22 the west and the Current River to the east.  
 23 The spring has been a recreational draw  
 24 for visitors since the early 1900s. The Big  
 25 Spring landscape character area generally  
 26 extends from the vehicular bridge across Big  
 27 Spring branch north to the northern limits  
 28 of the early 20th century slough and the  
 29 CCC-built Big Spring Stone Dikes (HS-711).  
 30 Key characteristics include roads and trails,  
 31 structures, recreational spaces, and plantings  
 32 designed and built by the CCC in the 1930s.

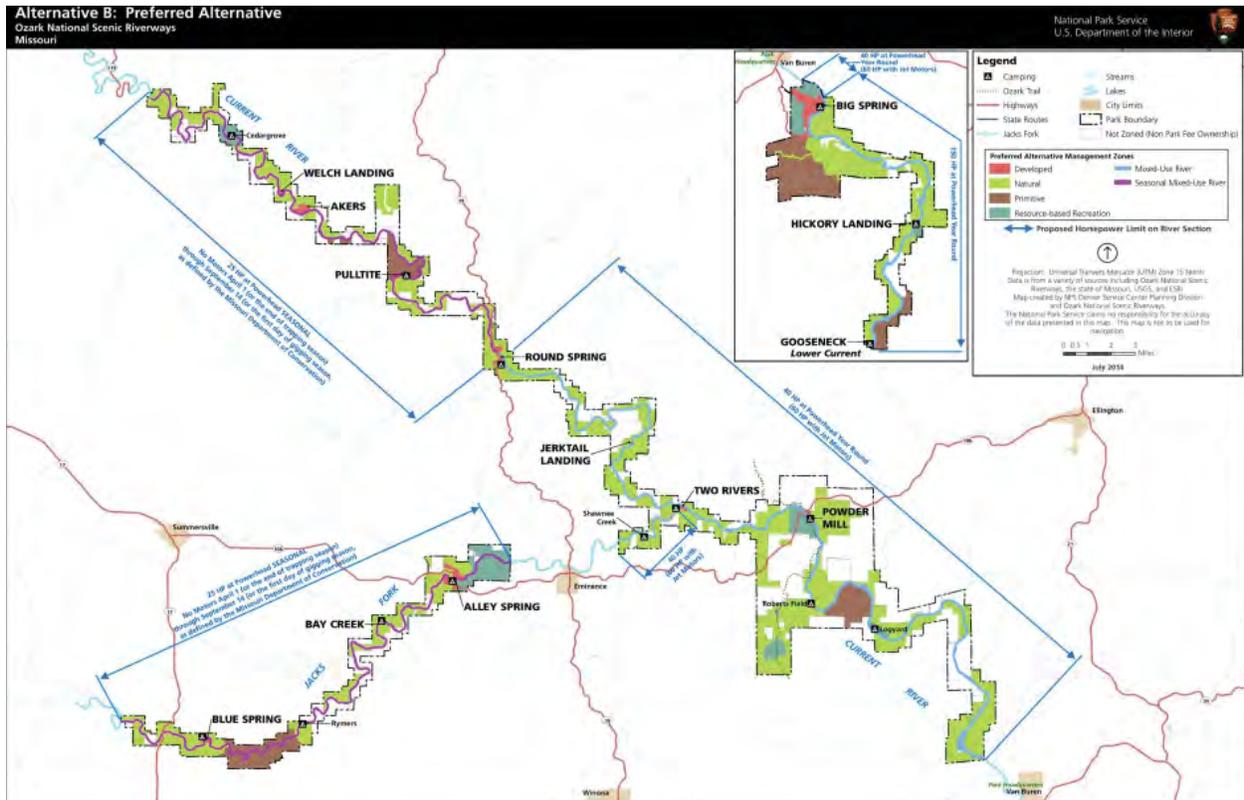


Figure 1-3. The Preferred Alternative Management Zones from the GMP identify three land use distinctions at BSHD to include Developed areas; Resource-based Recreation areas; and Natural areas. (GMP, 2015)

## Project Purpose and Need

1 The purpose of this CLR/EA is to provide  
 2 guidance for managing the Big Spring Historic  
 3 District as a significant cultural landscape and  
 4 important recreational area. This CLR/EA will  
 5 provide the primary resource documentation  
 6 and comprehensive guidance relevant to  
 7 ultimate use and treatment of the Big Spring  
 8 Historic District cultural landscape. The  
 9 project will provide guidance on preserving  
 10 the historic character and contributing  
 11 features of the BSHD cultural landscape as  
 12 it developed between 1924 and 1969. It  
 13 will provide long-term resource protection,  
 14 sustainable cyclic maintenance, and visitor  
 15 understanding and enjoyment.

16  
 17 There are a number of development projects  
 18 in the planning stages proposed for the study  
 19 area in the coming years. The CLR/EA will  
 20 help guide the planning and compliance  
 21 process for potential construction projects  
 22 and assist in ensuring any developments  
 23 fit into the more holistic goals of historic  
 24 preservation and public interpretation of Big  
 25 Spring Historic District. The CLR/EA will also  
 26 inform future projects in the study area that  
 27 may have an impact on historic resources and  
 28 the cultural landscape.

29  
 30 The proposed project is needed to document  
 31 the changes to the cultural landscape over  
 32 time, to provide holistic and integrated  
 33 guidance for the long-term preservation  
 34 and stewardship of the resources of the Big  
 35 Spring Historic District, and to ensure that  
 36 these projects have no adverse effect on  
 37 historic resources within the district. The  
 38 project is needed to supplement baseline  
 39 documentation, and to generate needed  
 40 historical, archeological and natural resource  
 41 data.

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1 The CLR/EA is needed to fulfill a critical role  
 2 in the planning and compliance process for  
 3 large scale projects and help ensure that any  
 4 developments would fit into more holistic  
 5 goals of historic preservation and public  
 6 interpretation, consistent with the GMP. The  
 7 CLR/EA is needed to determine the best mix  
 8 of resource protection and visitor experience,  
 9 based on the following:

- 10  
 11 • The enabling legislation of Ozark National  
 12 Scenic Riverways;  
 13 • The range of public expectations and  
 14 concerns;  
 15 • The natural and cultural resources in Big  
 16 Spring Historic District;  
 17 • The impacts of the alternatives on  
 18 resources within Big Spring Historic  
 19 District and socioeconomic conditions  
 20 within and outside of BSHD;  
 21 • Impacts on visitor use and experience;  
 22 • Improvement of the quality and diversity  
 23 of visitor use;  
 24 • Long-term budget considerations and  
 25 costs;  
 26 • Federally proposed Wilderness areas, as  
 27 recommended by the GMP.<sup>1,2</sup>

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43 1.2 *Ozark National Scenic Riverways, General Management*  
 44 *Plan Summary*. (National Park Service, U.S. Department of  
 the Interior: 2015).

## Project Objectives

- 1 This CLR/EA addresses the following  
2 objectives.  
3
- 4 • Augment the existing 2016 CLI site  
5 history by addressing any remaining  
6 research questions and creating a series  
7 of historic period plans. Confirm the  
8 boundary of the study area, and the  
9 period of significance for Big Spring  
10 Historic District in collaboration with the  
11 2016 CLI.
  - 12 • Document and evaluate the existing  
13 condition of the Big Spring Historic  
14 District cultural landscape to identify the  
15 qualities and features that comprise its  
16 sense of place.
  - 17 • Address areas to be avoided or treatments  
18 for mitigating impacts from pending  
19 construction projects.
  - 20 • Provide OZAR with Big Spring Historic  
21 District data for populating a GIS-based  
22 cultural landscape database, also for  
23 constructing a facilities hierarchy in  
24 the NPS Facility Management Software  
25 System (FMSS) database.
  - 26 • Explore concepts for how the NPS  
27 can provide a cohesive, unified visitor  
28 experience at Big Spring Historic  
29 District, and to identify opportunities for  
30 accommodating universal access at key  
31 visitor facilities.
  - 32 • Advise the future interpretive use of the  
33 study area, and examine the best ways for  
34 visitors to access the site with minimal  
35 resource impact.
  - 36 • Determine a desired landscape condition  
37 and provide stewardship guidance for  
38 protecting the character and ambiance of  
39 the Big Spring Historic District cultural  
40 landscape.
  - 41 • Provide parameters to guide concession  
42 operations within the Big Spring Historic  
43 District.  
44

## 1 Methodology

- 2
- 3 The CLR/EA was conducted at a thorough  
4 level of investigation and documentation  
5 for historical research, existing condition  
6 assessment, and landscape analysis. The  
7 thorough level research methodology, as  
8 defined by the NPS, focused on the use  
9 of select documentation of known and  
10 presumed relevance, including primary and  
11 secondary sources that are readily available.<sup>1.3</sup>  
12
- 13 The existing condition investigation was  
14 conducted according to best practices.  
15 A review of documentation included  
16 information from OZAR, the National Park  
17 Service's Midwest Regional Office (NPS-  
18 MWRO), and the National Park Service's  
19 Midwest Archeological Center (NPS-MWAC).  
20 This review included planning documents,  
21 administrative reports, technical reports,  
22 natural resource studies, and correspondence.  
23 Concurrent with this CLR/EA, a CLI has been  
24 prepared for Big Spring Historic District. The  
25 2016 CLI was consulted for consistency as  
26 part of the CLR/EA.  
27
- 28 Review of historical documentation included  
29 the 1981 NRHP nomination for Big Spring  
30 Historic District, historic drawings and  
31 photographs, and correspondence available  
32 from primary and secondary sources.  
33 Background data provided by the NPS  
34 was used to prepare CLR/EA drawings  
35 and illustrations. This data included GIS  
36 files and historic drawings, which were  
37 supplemented with field observations and  
38 measurements. Site investigations in October  
39 2015 documented existing conditions.  
40 Archeological research focused on review  
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- 42 1.3 Robert R. Page, Cathy A. Gilbert and Susan A. Dolan. *A*  
43 *Guide to Cultural Landscape Reports: Contents, Processes*  
44 *and Techniques*. (Washington D.C.: National Park Service,  
1998).

1 of previous archeological investigations.  
 2 The CLR/EA did not include any additional  
 3 archeological investigations.

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#### 5 **Park Purpose and Significance**

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7 The enabling legislation states that OZAR  
 8 was established in 1964 for “the purpose of  
 9 conserving and interpreting unique scenic  
 10 and other natural values and objects of  
 11 historic interest” specifically including “the  
 12 lands composing Big Springs, Alley Springs,  
 13 and Round Spring State Parks.” Big Spring  
 14 State Park was established in 1924 to provide  
 15 public access to and amenities at Big Spring  
 16 and the Current River. Today, Big Spring  
 17 Historic District preserves and interprets  
 18 the natural resource of Big Spring, the  
 19 CCC-developed amenities, and serves as an  
 20 important recreational destination.

21

22 Big Spring Historic District is significant for  
 23 its natural resources including the fresh water  
 24 spring of Big Spring, one of the largest springs  
 25 in the United States by volume. The spring,  
 26 Big Spring branch, and the Current River are  
 27 popular attractions and an extensive trail  
 28 network provides access to natural areas.

29

30 The Big Spring Historic District is significant  
 31 for the Naturalistic style of landscape  
 32 design and Rustic style of architecture that  
 33 is associated with the 1930’s era of public  
 34 works projects undertaken during the Great  
 35 Depression. The Rustic style of architecture  
 36 harmonizes buildings with the natural  
 37 environment. The style is characterized by  
 38 local materials, hand craftsmanship and  
 39 details determined by the natural qualities  
 40 of the site. In Naturalistic landscape design,  
 41 emphasis is placed on the natural landscape  
 42 with new features designed to be sympathetic  
 43 and subordinate to the natural features.<sup>1,4</sup>

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1.4 Linda Flint McClelland. Building the National Parks:

1 Big Spring Historic District was listed in the  
 2 NRHP in 1981, and was one of the oldest and  
 3 most popular national park areas in Missouri.

4

#### 5 **Management**

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7 The study area encompasses the majority of  
 8 the Big Spring Historic District, owned and  
 9 managed by the NPS as a park unit of the  
 10 OZAR. The management of OZAR is primarily  
 11 guided by the General Management Plan.

12

13 The GMP envisions enhanced opportunities  
 14 for visitors to discover the natural wonders  
 15 and Ozark heritage, while maintaining a mix  
 16 of traditional recreational and commercial  
 17 activities. Emphasis is placed on increasing  
 18 opportunities for visitor education and  
 19 connections to natural resources and cultural  
 20 landscapes. The GMP provides for a mix of  
 21 independent and guided traditional activities  
 22 such as boating, floating, and hiking.

23

24 The GMP recommends the restoration of  
 25 key ecosystem features, and preservation of  
 26 cultural resources. It applies a comprehensive  
 27 Riverway-wide approach, which identifies  
 28 specific management zones. For Big Spring  
 29 Historic District, these zones include: 1)  
 30 Developed - to accommodate visitor services  
 31 and recreation uses including administrative  
 32 services; 2) Resource-based Recreation – to  
 33 accommodate moderate levels of visitor  
 34 use including recreational, natural and  
 35 interpretive opportunities; 3) Natural areas  
 36 – to support the ecological integrity of the  
 37 OZAR, and where low-impact activities may  
 38 occur; 4) Primitive areas – to retain their wild,  
 39 natural character with some opportunities to  
 40 experience the backcountry; and 5) Mixed-

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42 Historic Landscape Design and Construction. (Baltimore  
 43 MD: The Johns Hopkins University Press, 1998), 243.

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1 use - along the river, to allow motorized and  
2 non-motorized watercraft.<sup>1.5</sup>  
3  
4 The GMP recommends a wilderness  
5 designation for 3,430 out of 3,966 acres  
6 within the Big Spring Wilderness Study Area.  
7 The entire Big Spring Wilderness Study Area  
8 would be zoned Primitive. Within this area,  
9 the GMP retains the Fire Tower / Lookout  
10 Tower (HS-1404), Dump Incinerator (HS-  
11 432B), Chilton Creek Barn (HS-467), and  
12 CCC Camp Ruins, and removes the NPS  
13 training range with this area to be restored  
14 as a natural area. The GMP eliminates  
15 administrative vehicular use of the roads to  
16 the Fire Tower / Lookout Tower, NPS training  
17 range, and Chilton Creek Barn, but allows  
18 for these to be evaluated to determine the  
19 feasibility of restoring them to a CCC era  
20 condition for possible use as hiking trails.<sup>1.6</sup>  
21  
22 Under the GMP, the Current River would  
23 continue to be open to non-motorized  
24 watercraft year round. Motorized watercraft  
25 would be permitted from Van Buren to Big  
26 Spring year round, changing the existing  
27 regulation of engines rated 40 horsepower  
28 or less at the powerhead, to allow the use  
29 of engines rated 60 horsepower as long as  
30 they are equipped with a jet unit.<sup>1.7</sup> Boats and  
31 swimming at Big Spring and the Big Spring  
32 branch would not be permitted. Below the  
33 Big Spring branch, the Current River would  
34 continue to be open to motorized watercraft  
35 year round, limited to engines rated 150  
36 horsepower or less at the powerhead.<sup>1.8</sup>  
37

### 38 Management Issues

39 The following summarizes management  
40 issues identified in consultation with park  
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42 1.5 *Ozark National Scenic Riverways, General Management*  
43 *Plan Summary*. (National Park Service, U.S. Department of  
44 the Interior: 2015), 45.

45 1.6 *GMP*, 77.

46 1.7 *GMP*, 73.

46 1.8 *GMP*, 73.

1 staff and through research and evaluation of  
2 the cultural landscape. These issues relate  
3 to existing features, structures, or associated  
4 operations or maintenance that make it  
5 difficult for Big Spring Historic District to  
6 realize the vision and goals for the study  
7 area. Treatment recommendations assist in  
8 addressing these management issues.  
9

### 10 *Protection of Water Quality*

11 Cooperation is needed between the NPS  
12 and adjacent land stewards in the Current  
13 and Jacks Fork watersheds to protect water  
14 quality and limit erosion. There is a need to  
15 control against accelerated runoff and surface  
16 water, and prevent soil erosion, thus helping  
17 maintain clarity of the river water.  
18

### 19 *Viewshed*

20 Cooperation is needed to protect the  
21 scenic qualities of the river system and all  
22 waterbodies, particularly in protecting views  
23 and vegetation, as the riparian edge and  
24 scenic qualities make boating the river system  
25 attractive to visitors.  
26

### 27 *Vegetation Management*

28 Some invasive plant species impact the  
29 study area, including garlic mustard (*Alliaria*  
30 *petiolata*), Japanese stiltgrass (*Microstegium*  
31 *vimineum*), and non-native tree species.<sup>1.9</sup>  
32 Plant diversity is somewhat limited within Big  
33 Spring Historic District, where the majority  
34 of trees are of a similar age, and the mix of  
35 species is not representative of the historic  
36 forest environment. Big Spring Historic  
37 District does not have a current Vegetation  
38 Management Plan. Recommendations  
39 for forest management, including tree  
40 removals, plantings, etc., related to the  
41 historic character of Big Spring Historic  
42 District are needed.<sup>1.10</sup> A coordinated wildlife

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44 1.9 Consultation with OZAR staff, CLR/EA Work Session  
45 November 2015.

46 1.10 Vegetation management goals related to Big Spring  
Natural Area and Big Spring Pines Natural Area, as well

1 management plan is also needed, as is a plan  
2 for protection of threatened and endangered  
3 wildlife species.

4

#### 5 *Architectural Barriers Act (ABA) Accessibility*

6 Many buildings and structures within the  
7 BSHD are not universally accessible, either  
8 due to a lack of connecting walkways, steep  
9 gradients, or issues related to the building  
10 such as door width. The Dining Lodge (HS-  
11 422) has an accessible entrance at the back  
12 door, but not to the front entry. None of the  
13 cabins are accessible, although vehicular and  
14 pedestrian access to several of the cabins  
15 could be made universally accessible. It is  
16 desirable for the Museum (HS-420), Dining  
17 Lodge, and a certain number of cabins and  
18 trails be universally accessible. This CLR/EA

19 will assist with site access recommendations.  
20 A Historic Structures Report or an  
21 Accessibility Study will be needed to address  
22 accessibility within the buildings and cabins.  
23

#### 24 *Building Repair and Maintenance*

25 Big Spring Historic District's current strategy  
26 for maintaining buildings and structures is  
27 through routine daily maintenance such as  
28 leaf-blowing, clean-up, and minor repairs. The  
29 park utilizes prescribed burns in accordance  
30 with the park burn plan, and burn units  
31 include areas around the cabins to control  
32 vegetation. Additional guidance is needed  
33 to protect buildings and structures from  
34 elements, repair storm and flood damage,  
35 and ensure security and fire protection. The  
36 1996 HSR identified deficiencies in the Dining  
37 Lodge (HS-422), and provided guidance  
38 for preservation and repair of the historic  
39 building. Additional HSRs are needed for the  
40 remaining historic buildings and the cabins,  
41 as this would greatly assist in care of these  
42 buildings.

43

44 as long-term monitoring plots (e.g. ECS, USFS NCFES,  
45 and possible fire monitoring plots), would also need to  
46 be incorporated into a potential vegetation management  
plan.

#### 1 *Concession Challenges*

2 Traditionally, the Dining Lodge (HS-422)  
3 and cabins have been operated through a  
4 concession agreement, which has included  
5 a restaurant, lodging and boating access  
6 to the Current River. At this time, the  
7 concession operation has been inactive since  
8 early 2014, and there are no agreements  
9 currently under consideration. The park has  
10 identified a number of needed upgrades to  
11 utilities, buildings, and the landscape. These  
12 improvements are needed to preserve historic  
13 resources, and for continual operation, but it  
14 may be four to five years before the facilities  
15 will be ready for a new concessionaire. The  
16 park would like to open boat service again,  
17 and possibly have this as a required service of  
18 the new concessionaire.

19

#### 20 *Stormwater / Flooding*

21 Sensitive natural, cultural, and archeological  
22 resources are in need of protection from  
23 erosion and environmental degradation.  
24 The Current River frequently floods, making  
25 stormwater runoff an issue in some places,  
26 such as the Maintenance Area where storm  
27 water runs through the middle of the site. The  
28 Latrine (HS-423) has been flooded several  
29 times, submerged under five to seven feet  
30 of water. While river floods are natural, and  
31 not due to increased development upstream,  
32 flooding of the historic buildings and  
33 structures is an issue. Gabions were installed  
34 in the early 1980s and 1990s to restore an  
35 eroded bank in the vicinity of Big Spring  
36 Stone Dike #3 (HS-711) but no repairs to the  
37 Big Spring Stone Dikes were undertaken to  
38 protect the historic features against flooding.

39

#### 40 *Balance Resource Protection and Recreation*

41 The Current River is a popular boating area,  
42 with boat ramps and loading areas often used  
43 by the local community and visitors to the  
44 region. This type of recreational use needs  
45 to be planned in concert with protection of  
46 natural and cultural resources to protect them  
47 from pollution and overuse.

## Scoping Process for this CLR/EA

### 1 *Archeological Resources*

2 The study area includes significant prehistoric  
3 and historic archeological resources. The  
4 Chubb Hollow Site is listed in the NRHP for  
5 its association with aboriginal occupation.  
6 The site is threatened by erosion and  
7 subsurface resources have been damaged  
8 by 20th century additions to the landscape.  
9 Recommendations are needed to protect the  
10 prehistoric and historic resources.

11

### 12 *Current Projects*

13 Several projects are planned within the study  
14 area. Current Project Management  
15 Information System (PMIS) projects include  
16 replacing the bridge across Big Spring branch;  
17 utility upgrades; and renovation of the Dining  
18 Lodge (HS-422), cabins, and retaining walls.

- 19 • The utility project (to update and bury  
20 lines) is the first priority, and is in the  
21 design phase. It will tie into the Dining  
22 Lodge and Cabins. Construction for  
23 utilities will begin in 2016. There is an  
24 existing electric corridor through the  
25 study area, with 5400 volt power boxes  
26 and poles through the core development  
27 area.
- 28 • The bridge replacement across Big Spring  
29 branch is currently being designed. The  
30 preferred alternative is for a concrete  
31 bridge to replace the existing wooden  
32 bridge. The bridge project is led by  
33 Federal Highway Administration; the  
34 Environmental Assessment for this  
35 construction is currently underway.
- 36 • The Dining Lodge project is not yet  
37 funded.

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1 Scoping is an early and open process  
2 to determine the breadth of issues  
3 and alternatives to be addressed in an  
4 environmental assessment. Park staff  
5 and resource professionals of the NPS-  
6 MWRO conducted internal scoping. This  
7 interdisciplinary process defined the purpose  
8 and need, identified potential actions to  
9 address the need, determined the likely  
10 issues and impact topics, and identified the  
11 relationship of the proposed action to other  
12 planning efforts at Big Spring Historic District.

13

14 As part of tribal consultation, scoping letters  
15 were sent to federally recognized tribes for  
16 consultation with OZAR on July 13, 2016  
17 to determine if any ethnographic or other  
18 resources are in the project area and to  
19 inquire whether local tribes wanted to be  
20 involved in the environmental compliance  
21 process. The tribes and governments that  
22 received letters are:

- 23 • Cherokee Nation (Tahlequah, Oklahoma)
- 24 • Delaware Nation (Anadarko, Oklahoma)
- 25 • Delaware Tribe of Indians (Bartlesville,  
26 Oklahoma)
- 27 • Eastern Shawnee Tribe of Oklahoma  
28 (Seneca, Missouri)
- 29 • Osage Nation (Pawhuska, Oklahoma)
- 30 • United Keetoowah Band of Cherokee  
31 Indians (Tahlequah, Oklahoma)

32

33 The National Historic Preservation Act  
34 (NHPA) (16 USC 470 et seq.) requires  
35 the consideration of impacts on cultural  
36 resources, either listed in or eligible to  
37 be listed in, the NRHP. Park staff sent a  
38 scoping letter to the Missouri State Historic  
39 Preservation Office (SHPO) on July 13,  
40 2016 to solicit input on issues of concern.  
41 OZAR will continue to consult with the  
42 SHPO to determine the effects of the action  
43 alternatives on eligible historic resources and

1 to develop mitigation for impacts on historical  
 2 features, if any, from the preferred alternative.  
 3 The park also sent a scoping letter on  
 4 December 12, 2016 to the U.S. Fish and  
 5 Wildlife Service (USFWS) to solicit input on  
 6 issues of concern.

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## Issues and Impact Topics

1 An important part of the decision-making  
 2 process is seeking to understand the  
 3 consequences of making one decision  
 4 over another. This CLR/EA identifies the  
 5 anticipated impacts of possible actions  
 6 on certain resources, Big Spring Historic  
 7 District visitors, and neighbors. The impacts  
 8 are organized by topic, such as “cultural  
 9 resources” or “visual resources.” Impact  
 10 topics serve to focus the environmental  
 11 analysis and ensure the relevance of impact  
 12 evaluation.

13

14 Impact topics were developed from the  
 15 questions and comments brought forth during  
 16 scoping; site conditions; staff knowledge of  
 17 resources; and any laws, regulations, policies,  
 18 or orders applicable to the project. Some  
 19 topics were dismissed from detailed analysis  
 20 because the resource is not present in the  
 21 study area or because the action alternatives  
 22 would either have no effect on the impact  
 23 topic or the effects would be minimal. Some  
 24 impact topics were retained even though the  
 25 effects of the alternatives would be minimal  
 26 because the impact topic is a particularly  
 27 sensitive resource or was identified as an  
 28 important topic in scoping.

29

### 30 Impact Topics Selected for Analysis

31

32 The issues identified during scoping that are  
 33 evaluated in this CLR/EA are potential effects  
 34 on the following resources:

- 35 • Cultural resources – cultural landscapes,  
 36 historic structures, and historic and  
 37 prehistoric archeological resources
- 38 • Vegetation, including threatened and  
 39 endangered species
- 40 • Visitor use, interpretation, and recreation
- 41 • Visual resources
- 42 • Wilderness and Natural Areas

43

1 Table 1 discusses the retained impact topics;  
2 the reasons for retaining the topic; and  
3 relevant laws, regulations, and policies.

4  
5 **Impact Topics Dismissed from Further**  
6 **Consideration**

7  
8 The following impact topics or issues were  
9 eliminated from consideration because either  
10 the resources are not present in the areas  
11 proposed for management implementation or  
12 because the effects, if any, would be minimal.

13  
14 Geology and Paleontology

15 The NPS Organic Act and NPS Management  
16 Policies 2006 (NPS 2006) direct the NPS to  
17 preserve and protect geologic resources,  
18 maintain natural geologic processes, and  
19 preserve and protect paleontologic resources.

20  
21 Although OZAR contains important geologic  
22 and paleontologic resources, the proposed  
23 action and alternatives would have little to  
24 no impact on site geology or paleontology  
25 because no extensive excavation is proposed.  
26 As a result, the action alternatives would have  
27 local short-term and long-term negligible  
28 adverse effects on geologic and paleontologic  
29 resources in the project area. Because impacts  
30 on geologic and paleontologic resources  
31 would be no more than negligible under the  
32 proposed action alternatives, this impact  
33 topic was dismissed from further analysis.

34  
35 Wetlands

36 The Clean Water Act; Executive Order  
37 11990, "Wetland Protection"; NPS 2006;  
38 and Director's Order 77-1 direct that water  
39 resources and wetlands be protected and that  
40 wetlands and wetland functions and values  
41 be preserved. Although wetlands are likely  
42 present within a small section of the study  
43 area along the Current River, the proposed  
44 treatment recommendations under the action  
45 alternatives would not occur within wetlands.  
46 Because the proposed recommendations

1 under the action alternatives would have a  
2 minimal impact on wetlands, wetlands was  
3 dismissed as an impact topic in this CLR/EA.

4  
5 Floodplains

6 EO 11988, "Floodplain Management" requires  
7 an examination of impacts on floodplains and  
8 potential risks involved in placing facilities  
9 within floodplains. NPS Management Policies  
10 2006 and DO 77-2: Floodplain Management  
11 provides guidelines for proposed actions  
12 in floodplains. Floodplains have been  
13 identified in the study area; however, the  
14 action alternatives do not propose work  
15 activities or structures in a floodplain. No  
16 work is proposed within the floodplain with  
17 the exception of rehabilitation of the Big  
18 Spring Stone Dike (HS-711) system. Proposed  
19 rehabilitation of the Big Spring Stone Dike  
20 system includes the removal of heavy or  
21 overgrown vegetation on the Big Spring  
22 Stone Dikes so they can reflect the historic  
23 setting; however, the action alternative does  
24 not propose work activities that would affect  
25 the topography of the floodplain or propose  
26 new structures in a floodplain. Because there  
27 would be no impact on floodplains under any  
28 alternative, floodplains was dismissed as an  
29 impact topic in this CLR/EA.

30  
31 Indian Trust Resources

32 Secretarial Order 3175 requires that  
33 any anticipated impacts on Indian trust  
34 resources from a proposed project or action  
35 by Department of the Interior agencies  
36 be explicitly addressed in environmental  
37 documents. The federal Indian trust  
38 responsibility is a legally enforceable  
39 fiduciary obligation on the part of the  
40 United States to protect tribal lands, assets,  
41 resources, and treaty rights. The order  
42 represents a duty to carry out the mandates  
43 of federal law with respect to American  
44 Indian and Alaska Native tribes. None of  
45 the lands of the park are trust resources  
46 according to this definition; therefore, Indian

Table 1. Impact Topics Retained and Relevant Laws, Regulations, and Policies

<b>Impact Topic</b>	<b>Reasons for Retaining Impact Topic</b>	<b>Relevant Laws, Regulations, and Policies</b>
Cultural landscapes, historic structures, and historic and prehistoric archeological resources	The treatment recommendations for cultural landscapes are key issues of this CLR/EA. Because implementing one or more of the alternatives may result in changes to cultural landscapes and historic structures and because ground disturbances may affect archeological sites (i.e., disturb buried artifacts), this topic was retained for further analysis.	Sections 106 and 110 of the NHPA; ACHP implementing regulations regarding the “Protection of Historic Properties” (36 CFR 800); DO-28: Cultural Resource Management Guidelines; NPS Management Policies 2006; Secretary of the Interior’s Standards for the Treatment of Historic Properties; NEPA; Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes (1996); Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation; DO-28A: Archeology
Vegetation	The treatment recommendations could affect vegetation communities through clearing and thinning activities.	NPS Organic Act; NPS Management Policies 2006; Resource Management Guidelines (NPS-77); Federal Noxious Weed Control Act; EO 13112, “Invasive Species”
Visitor use, interpretation, and recreation	The action alternatives could affect overall visitor understanding of the Big Spring Historic District, including interpretive and educational opportunities, and could also affect recreational opportunities; therefore, this topic was retained for further analysis.	NPS Organic Act; NPS Management Policies 2006
Visual resources	Modifications to the cultural landscape proposed in the action alternatives may alter the views for Big Spring Historic District visitors; therefore, this topic was retained for further analysis.	NPS Management Policies 2006
Wilderness	The CLR/EA recommendations may include work in proposed wilderness areas and could affect wilderness characteristics; therefore, this topic was retained for further analysis.	NPS Management Policies 2006; DO-41: Wilderness Stewardship; Wilderness Act (16 USC 1133(b))

1 trust resources was dismissed as an impact  
2 topic in this CLR/EA.  
3  
4 Environmental Justice  
5 EO 12898, “General Actions to Address  
6 Environmental Justice in Minority Populations  
7 and Low-Income Populations” requires all  
8 federal agencies to incorporate environmental  
9 justice into their missions by identifying and  
10 addressing the disproportionately high and/  
11 or adverse human health or environmental  
12 effects of their programs and policies on  
13 minorities and low-income populations and  
14 communities. According to the Environmental  
15 Protection Agency, environmental justice  
16 is the ...fair treatment and meaningful  
17 involvement of all people, regardless of  
18 race, color, national origin, or income, with  
19 respect to the development, implementation,  
20 and enforcement of environmental  
21 laws, regulations, and policies. Minority  
22 populations make up approximately 5% of the  
23 population in Carter County.<sup>1.11</sup> About 24%  
24 of the residents live below the poverty level,  
25 compared with 15.5% statewide. Although  
26 minority and low-income populations are  
27 present in Carter County, no actions in the  
28 alternatives would have disproportionate  
29 health or environmental effects on these  
30 populations or communities as defined in the  
31 Environmental Protection Agency’s “Draft  
32 Environmental Justice Guidance”; therefore,  
33 environmental justice was dismissed as an  
34 impact topic in this CLR/EA.

35  
36 Wildlife and Threatened and Endangered  
37 Species

38  
39 *Wildlife*

40 OZAR contains animals common to both  
41 eastern deciduous forests and prairies to the  
42 west. Common wildlife observed in OZAR  
43 includes several species including small  
44 mammals, amphibians, reptiles, and birds.

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46 1.11 “U.S. Census Bureau. 2014. Quick Facts – Carter County,  
Missouri.” Accessed: May 24, 2016. <http://www.census.gov/quickfacts/table/PST045215/29035>.

1 Because the proposed recommendations  
2 under the action alternatives would result  
3 in minor thinning of vegetation and would  
4 result in a beneficial effect on the overall  
5 health of forests and vegetation communities,  
6 the recommendations would have a slight  
7 adverse effect on wildlife and wildlife habitat.  
8 Because impacts on habitat would be no more  
9 than negligible under the proposed action  
10 alternatives, this impact topic was dismissed  
11 from further analysis.

12  
13 *Special Status Species*

14 Special status species include species listed  
15 as threatened or endangered under the  
16 Endangered Species Act (ESA), species  
17 protected under other federal regulations,  
18 and other species considered sensitive by  
19 the OZAR and the state of Missouri. Several  
20 federally threatened or endangered species  
21 have the potential to occur in the study area.  
22 The proposed action alternatives would  
23 not occur in habitat for these species and/  
24 or would not result in any adverse impacts  
25 to these species and, therefore, it is unlikely  
26 species would be impacted by proposed  
27 activities. Because no special status species  
28 would be adversely impacted by the action  
29 alternatives, this topic was dismissed from  
30 consideration in this CLR/EA.

31  
32 *Special Status Plant Species*

33 Three federally listed threatened or  
34 endangered plant species have the potential  
35 to occur within the area. These species have  
36 not been recorded in the study area, and the  
37 Big Spring Historic District does not provide  
38 suitable habitat for these species. Because the  
39 proposed recommendations under the action  
40 alternative would not affect suitable habitat  
41 for threatened and endangered plant species,  
42 this topic was dismissed from analysis.

43  
44 Socioeconomics

45 The town of Van Buren, Missouri is located in  
46 the southeastern Missouri Ozarks. The town,

1 with a population of about 820, serves as  
2 the county seat of Carter County. The town  
3 also serves as a destination for recreational  
4 use of the Current River, as well as viewing  
5 Big Spring.<sup>1.12</sup> The local economy in Van  
6 Buren is based on tourism and service-  
7 oriented businesses including several  
8 lodging options, restaurants, outfitters,  
9 and retail. Under the no action alternative,  
10 current levels of economic activity may be  
11 affected by closure of the historic cabins and  
12 lodge, and other closures or detours during  
13 construction activities. Impacts under the  
14 action alternatives would improve the overall  
15 quality of the visitor experience by enhancing  
16 the projects currently in the planning stages.  
17 Because no adverse socioeconomic effects  
18 were identified, this impact topic was  
19 dismissed from detailed discussion in this  
20 CLR/EA.

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46 1.12 *Van Buren 2014*

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